Arab Muslims' Explanatory Models of Mental Illness: A Mixed-Methods Inquiry Using Cultural Consensus Approach

Maryam Nemati

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By: Maryam Nemati

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Signed by the final examining committee:

_____Chair
Dr. Ian Ferguson

_____ External to Program
Dr. Mark Ellenbogen

_____ External Examiner
Dr. Dennis Wendt

_____Thesis Supervisor
Dr. Andrew Ryder

_____Examiner
Dr. Norman Segalowitz

_____Examiner
Dr. Roisin O'Connor

Approved by _____
Dr. Andrew Chapman, Graduate Program Director

Date _____
Dr. Pascale Sicotte, Dean
Faculty of Arts and Science

ABSTRACT

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Maryam Nemati, Ph.D.

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Arab Muslims are one of the fastest growing populations in Canada. Similar to other ethnocultural minority groups, Arab Muslims report high rates of psychological distress compared to the general population. Despite these high rates, however, Arab Muslims tend to use mental health services less than the general population, entering treatment only when the symptoms have become severe and terminating treatment prematurely. This series of studies aimed to better understand the cultural models of mental illness and help-seeking used by Arab Muslims in Canada, focusing especially on aspects of these models that might contribute to social disparities in access to mental health care. To this end, three studies were conducted in the Montreal community following the sequential cultural consensus approach. In study 1, 54 Arab Muslims free listed (a) key Muslim values; (b) beliefs about mental illness; and (c) help-seeking strategies. Items listed by more than 10% of participants were used in the following study. In study 2, 40 Arab Muslims completed three pile-sorting tasks while speaking aloud as they sorted previously identified salient concepts. Qualitative and multidimensional scaling methods were used to characterize the piles. In study 3, 68 Arab Muslims completed a questionnaire designed based on results from the first two studies. Cultural consensus analysis was used to determine the degree to which participants agreed or disagreed with the identified cultural model. The extent to

which endorsement of different aspects of the shared model influenced help-seeking preferences was also evaluated. Taken together, results confirmed that there is strong consensus around key Muslim values. However, individuals may emphasize some aspects of the model more than others. Additionally, results point to variations in beliefs about causes of mental illness, with some participants emphasizing biopsychosocial and some emphasizing spiritual causes of mental illness. Results showed that these variations have impact on help-seeking preferences. Overall, participants indicated higher willingness to use professional mental health services than anticipated, albeit with significant concerns about whether their religious ideas would be acceptable to these professionals. The usefulness of the mixed methods cultural consensus approach to cultural-clinical psychology questions is discussed.

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

ATSPPH	Attitudes Toward Seeking Professional Psychological Help
BPS	Biopsychosocial
CCA	Cultural Consensus Analysis
CFI	Cultural Formulation Interview
CM	Cultural Model
CMT	Cultural Models Theory
DSM	Diagnostic and Statistical Manual
EM	Explanatory Models
FIT	Feedback-Informed Treatment
MDS	Multidimensional Scaling
MI	Mental Illness
RA	Research Assistant
RAA	Residual Agreement Analysis
TA	Thematic Analysis
VV	Value Violation
WMHP	Western Mental Health Professional

CHAPTER 1

General Introduction

As many European and North American societies are becoming increasingly multiethnic due to widespread immigration and globalization, scholars have recently been advocating for a pragmatic approach to addressing issues surrounding cultural diversity in clinical settings (Kirmayer, 2006). In a commissioned review paper published in *The Lancet*, for example, authors concluded that "the systematic neglect of culture in health and health care is the single biggest barrier to the advancement of the highest standard of health worldwide" (Napier et al., 2014, p. 1610). In the field of mental health, scholars have pointed to an urgent need to improve the accessibility and effectiveness of mental health services. Such claims are rooted in mounting evidence demonstrating that despite recent recognition of the importance of culture in clinical settings, limited progress has been made to successfully address health disparities among ethnocultural groups (Becker, 2019; Buchanan & Wiklund, 2020; Burlew et al., 2019). Studies suggest that people from ethnocultural minority backgrounds are less likely to use professional services, only seek professional help when their issues have become severe, and are more likely to drop out of treatment prematurely (e.g., Barghadouch et al., 2016; Bhui et al., 2003; Harris, Edlund, & Larson, 2005; Flaskerud & Hu, 1994; Salami, Salma, & Hegadoren, 2019; Sarría-Santamera et al., 2016; Snowden & Yamada, 2005; Sue et al., 1991). These trends have been observed even when people have access to universal healthcare (Kirmayer et al., 2007) or when socioeconomic contributors are accounted for (Padgett et al., 1994; Smedley, Stith, & Nelson, 2003). The underuse of mental health services cannot be solely attributed to variables such as unfamiliarly with healthcare services, acculturation level, use of traditional healing methods, or use of other community resources (Kirmayer, 2007). Indeed, research has consistently

demonstrated that the single most important reason for underuse of mental health services by ethnocultural minorities is the lack of culturally sensitive/responsive treatment approaches and services (Gelso, & Fretz, 2001; Groleau, & Kirmayer, 2004; Whitley, Kirmayer, & Groleau, 2006).

The disparities in utilization of mental health services among people from minority ethnic backgrounds is not surprising when understood in light of recent attention given to the ethnocentric biases that are common in psychological research (e.g., Buchanan et al., 2021; Clancy, & Davis, 2019; Henrich, Heine, & Norenzayan, 2010; Jack, Crivelli, & Wheatley, 2018; Keith, 2019) as well as theories and models of psychotherapy (e.g., Becker, 2019; Bernal, Bonilla, & Bellido, 1995; Comas-Diaz, 2011; Sue et al., 1999). Ethnocentric biases refer to the tendency to view one's own cultural group as the standard, and to evaluate other cultural groups based on one's own cultural values (Matsumoto & Juang, 2003; Sue & Sue, 2013). One of the major issues related to ethnocentric biases in psychotherapy is the over-representation of Western, Educated, Industrialized, Rich, and Democratic (WEIRD) populations in psychological research (Henrich, Heine, & Norenzayan, 2010) and the subsequent inaccurate generalization of research findings to non-WERID populations (Masuda, Batdorj, & Senzaki, 2020). Historically, psychotherapy research and clinical trials have been primarily tailored to addressing the psychological needs of upper- and middle-class European Americans (Hall, 2001; Trusty & Davis, 2002).

Despite increasing recognition of multicultural issues, contemporary models of psychotherapy continue to be influenced by Western cultural values, with a focus on individualism (Kirmayer, 2007; Pedersen, 2004; Smith & Draper, 2004). Collectivistic perspectives, along with contextual considerations such as socioeconomic status, historical,

spiritual, familial, institutional, and larger social contributors (e.g., systematic bias, discrimination, economic inequalities), are not only ignored (Smith, 2004) but are often seen as 'noise' in both research and clinical settings (Hong & Mallorie, 2004). Inherent in this bias is the assumption that Western values and cultural beliefs are universal. For example, the field of mental health has long been influenced by the use of Western diagnostic systems as the universal standard, which often fail to consider the cultural variations in the manifestation of mental illness (Kleinman, 1977).

Another assumption underlying ethnocentrism is the belief that science is culture-free, neutral, and objective (Sue & Sue, 2013). This assumption ignores that the dominant psychological science in the world is conducted, written, edited, and published by English-speaking White WEIRD scholars who are themselves cultural beings, trained in institutional practices and methodologies that primarily reflect Western European and North American values (Arnett, 2016; Clancy, & Davis, 2019). A chief characteristic of this cultural context is an analytic investigative approach that in contrast to holistic approaches, tends to break down systems into smaller parts while overlooking contextual elements and the relationship between the parts (Choi, Koo, & Choi, 2007; Masuda, Batdorj, & Senzaki, 2020; Nisbett et al., 2001). It is not surprising, thus, that cultural and contextual contributors are often dismissed in most Western scientific studies.

As Kleinman (1977) argues, current biases in dominant psychological research and theories lead to applying Western values and practices in non-Western contexts, neglecting to account for the unique experiences of distress and suffering of people from different cultural groups. This trend results in the experiences of people from ethnic minority groups being misinterpreted, their views of mental illness being treated as 'misguided' or at best a 'barrier' to

a successful treatment, and their mental health needs remaining unmet (Hall, 2001; Petkari, 2015; Wendt, Gone, & Nagata, 2015). Understanding the mental health needs of people from different cultural groups, therefore, is an important target for research, clinical assessment, and psychotherapy treatments. In this dissertation, I focus on addressing the mental health needs of Arab Muslims living in Montreal, Canada, by exploring their explanatory models of mental illness using a mixed-method cultural consensus approach.

Addressing Ethnocentric Biases in The Current Project

In light of the recognition of ethnocentric biases in psychological research, scholars have called to use a systematic approach in addressing challenges associated with cultural diversity and have delineated recommendations that can help with this goal (e.g., see Brady, Fryberg, & Shoda, 2018; Buchanan et al., 2021). In the current project, I built on this call by intentionally employing several systematic tools and methodologies that have the potential to counteract the ethnocentric biases outlined here and help to improve challenges associated with studying the inclusivity and efficacy of mental health services delivered to ethnic minority populations. First, the samples recruited in this study include a non-WEIRD population, namely Arab Muslims living in Montreal. Not unlike other cultural minority groups and despite their vulnerability to mental illness due to experiences such as discrimination (Lowe, Tineo, & Young, 2019; Rippy & Newman, 2006; Rousseau et al., 2011), Muslims living in Western counties have been shown to significantly underutilize mental health services (Ali et al., 2022; Aloud & Rathur, 2009; Awaad et al., 2019; Zia & Mackenzie, 2021). Nevertheless, there is a dearth of studies exploring the mental health needs of this population and their views on mental illness. Second, as researchers trained in the Western tradition, our research team recognized the importance of acknowledging our positionality and how it may influence our work. This chapter entails a description of my

reflections on sociocultural dynamics that may have shaped my relationship with participants as well as the research findings. Moreover, I took deliberate steps to ensure the research team was inclusive of individuals from diverse ethnic minority groups, as well as cultural insiders to the Muslim community, Arabic-speaking individuals, and professionals with experience in both Western and non-Western research and clinical settings. The involvement of these team members provided invaluable perspectives that enriched the study's design and facilitated interpretation of the findings.

Lastly, I aimed to practice reflexivity in this research, which began with reflections on the epistemological, theoretical, and methodological considerations that can better serve the goal of a culturally grounded understanding of the mental health needs of Arab Muslims (see Clancy & Davis, 2019 for guidelines on practicing reflexivity in research). Epistemologically, I adopted an interpretivist stance, which prioritizes the subjective experiences and interpretations of people and social groups (Taylor & Medina, 2011). This perspective recognizes that knowledge is constructed through a social and cultural lens and that there are no universal, objective truths that exist independently of human interpretation. By prioritizing the voices and experiences of research participants through an interpretive lens, I aimed to generate insights that more accurately represent the complexities of Arab Muslims' cultural life and inform a nuanced understanding of how they view mental illness and help-seeking.

I employed an interdisciplinary approach, drawing on theories from psychology and anthropology. My approach utilized theories from cultural-clinical psychology and cognitive theory of culture, including Cultural Models Theory and Cultural Consensus Analysis, that have overcome some of the limitations associated with studying and measuring the multifaceted concept of culture. Such theories go beyond documenting cultural differences and help to

enhance the explanatory power of cultural meanings in shaping Arab Muslims' views on mental illness and help-seeking. Furthermore, incorporating such theories enable me to attend to the intracultural variation within the Arab Muslim population and thus avoid the tendency to view this group as homogeneous.

Methodologically, I utilized mixed methods to identify locally valid views on suffering and illness and to develop locally derived tools to accurately measure them (see Tashakkori & Teddlie, 2010 for description of mixed method approaches). I incorporated ethnographic information to contextualize the findings and used qualitative, exploratory, data-driven, and inductive approaches in the early stages of the study, rather than relying on preconceived hypotheses (see Jack, Crivelli, & Wheatley, 2018 on the use of data-driven methods to diversify knowledge). Subsequently, I followed the qualitative and ethnographic findings with quantitively-informed hypothesis-testing. This mixed-method approach enabled me to triangulate the findings and generate a more comprehensive and culturally sensitive understanding of Arab Muslims' mental health needs. Triangulation is defined as the use of multiple methods of inquiry to address the same research question, and can be used to enhance the validity and reliability of findings (Carter et al., 2014). By utilizing a mixed-method approach, I aimed to address some of the limitations of traditional research methods that rely on a single method of inquiry.

Through these considerations, I aimed to enhance the *emic validity* of the findings. Emic validity is a term used to describe the degree to which a study accurately reflects the experiences and perspectives of the cultural group being studied. This concept is often contrasted with *etic validity*, which refers to prioritization of the academic researchers' perspective who may be cultural outsiders to the group being studied (Pike, 1954). The use of an etic approach can lead to the imposition of Western conceptualizations of health and suffering to non-Western cultural

groups, potentially resulting in a distorted representation of their unique expressions of mental illness (Kleinman, 1987; Monocello, 2022). In this dissertation, I recognize the importance of cultural subjectivity and variation in shaping peoples' experiences of suffering. Through an emic perspective, as such, I aim to deepen our understanding of Arab Muslims' unique expressions of distress, perceptions of normalcy and the good life, and preferred help-seeking strategies. Moreover, I hope to uncover the various coping mechanisms that Arab Muslims use to manage their distress and seek healing.

In the remaining section of this chapter, I begin by providing a review of the various cultural, historical, and political components that impact the experiences of Arab Muslims residing in Quebec. I then delve into what is known in the literature on the topic of Muslims' mental illness and help-seeking and underscore the significance of cultural influences in shaping explanatory models of mental illness and help-seeking practices. Given the inseparability of any study of explanatory models from its cultural context, I highlight the theoretical and methodological considerations that are essential to study culture as meaning in a systematic and methodical way. To further elucidate the theoretical considerations, I review the challenges inherent in studying the concept of culture and demonstrate how the present study addresses some of these challenges. Finally, I conclude this chapter with an outline of my three studies, which sequentially build upon one another and are together aimed at exploring the explanatory models of mental illness amongst Arab Muslims residing in Montreal.

Arab Muslims in Quebec

According to Statistics Canada, Islam, after Christianity, is the second most frequently reported faith in Canada in 2021, with almost 1.8 million followers (Statistics Canada, 2022). While Muslims are a diverse group of people with different racial backgrounds, approximately

one in five Muslims worldwide are of Arab descent (Esposito & Mogahed, 2007). Over the past 20 years, the proportion of Muslims in Canada has increased by more than double, rising from 2.0% in 2001 to 4.9% in 2021 (Statistics Canada, 2022). Quebec, specifically the greater Montreal area, is home to the largest population of Muslims in Canada after Ontario (Statistics Canada, 2022), and Arab Muslims are among the ethnic groups whose number is growing due to recent socio-political events (e.g., internal conflicts in Arab countries). Canada has been a place of refuge for many Arab Muslims fleeing civil war, political strife, torture, and displacement in countries such as Iraq, Syria, and Lebanon. Even after immigration, people fleeing such experiences suffer from severe trauma and are prone to develop mental disorders such as post-traumatic stress disorder, major depressive disorder, and a range of anxiety disorders (Kirmayer et al., 2007; Youssef & Deane, 2006). Upon arrival, Arab Muslims face numerous additional challenges, including difficulty finding employment, lower SES status relative to non-immigrants, language barriers, acculturation, and identity changes (Akram-Pall & Moodley, 2016; Barkdull et al, 2011). Such challenges have been shown to further compromise Arab Muslims' mental health (Youssef & Deane, 2006).

In addition to stressors associated with both pre- and post-immigration, many Muslims are faced with daily struggles resulting from the Islamophobia that spiked after September 11, and has been maintained through negative and stereotypical portrayal of Arabs and Muslims in Western Media (Hall, 2003; Helly, 2004; Merskin, 2004). Islamophobia refers to prejudice, hatred, or discrimination against Muslims or people perceived to be Muslim (Zine, 2006). A recent study in Canada demonstrated that Muslims are the most hated, feared, and targeted population in Canada when compared to other racial and religious groups (Wilkins-Laflamme, 2018). Opinion polls suggest that Quebec respondents, in particular, hold more negative attitudes

towards Muslims than those in other parts of Canada. For example, a 2013 poll found that 69% of Quebecois respondents reported biases against Muslims (Reid, 2013). In Quebec, Muslims face distinct challenges due to being perceived as a threat to the religious neutrality, secularism, and gender equality ideals that have been prominent in the province's political, media, and academic discourse since 2006 (Mathelet, 2015). These discourses are reflected in the Quebec's proposed Charter of Values in 2013 and subsequent bills, including the 2019 passing of Bill 21 (also known as the "Act Respecting the Laicity of the State"). These legislations aimed to establish a secular state and prohibit the wearing of religious symbols and clothing by public employees when providing services. The proposed legislation disproportionally affects religious minorities, particularly Muslims, by limiting their ability to express their religious beliefs in the public sphere and by creating barriers to employment in certain public sector jobs (Froc, 2022; Mercier-Dalphond & Helly, 2021). Indeed, the largest group impacted by Bill 21 is Muslim hijab-wearing female teachers (Froc, 2019).

The public's prejudice and institutionalized biases have far-reaching effects on the lives of Muslims, ranging from daily harassments to instances of violent hate crimes such as the 2017 Quebec City mosque shooting (Mercier-Dalphond & Helly, 2021; Perry & Poynting, 2007; Wilkins-Laflamme, 2018). Muslims in Canada report experiencing highest rates of discrimination, comparable only to rates among the Jewish and Jehovah's Witness communities (Wilkins-Laflamme, 2018) leading them to live in a heightened state of hypervigilance and insecurity (Ali & Awaad, 2019). A recent study involving interviews with Muslim-identifying people living in five major Canadian cities, including Quebec City and Montreal, found that Muslims frequently reported experiencing verbal and physical aggressions in various public spaces including workplaces, parking lots, cafes, and stores (Mercier-Dalphond & Helly, 2021).

Verbal attacks commonly included phrases such as “go back to your country”, “terrorist”, “Taliban”, and “all you Muslims should die”. Experiences of physical attacks, although less common, included ripping off the hijab, damaging their property, and throwing objects at them. Although the psychological consequences of these experiences haven’t been studied directly, it’s widely recognized that Islamophobia can have a negative mental health impact for Muslims residing in Western nations, leading this population to be vulnerable to disproportionately high rates of psychological disorders compared to other racial and religious populations (Ali & Awaad, 2019; Samari et al., 2018).

Despite experiencing higher rates of psychological difficulties related to immigration and discrimination, many Muslims in Canada do not utilize mental health services, and it is unclear whether their mental health needs are being adequately met (Zia & Mackenzie, 2021). Addressing this disparity is central to the goals of establishing health equity for cultural minorities. As such, there is an increasing need, especially in multicultural cities like Montreal, to develop mental health treatments that are tailored to the unique needs and belief systems of Arab Muslims. However, very little research has been conducted on how mental illness is understood by Arab Muslims living in Canada, making it challenging to create culturally appropriate treatment programs for this population. To my knowledge, this study is the first to explore the explanatory models of mental illness among Arab Muslims living in Quebec, where biases towards Muslims are more prevalent compared to other Canadian provinces.

Islam and Mental Health

Islam is a monotheistic religion that is based on the belief in one God, known as Allah. The term *Islam* itself means submission or surrender and refers to the act of willingly submitting oneself to the will of Allah. Those who do so are known as Muslims (Tanhan & Francisco,

2019). Although Muslims come from a variety of countries and regions (e.g., Saudi Arabia, Bahrain, Qatar, Turkey, Iran, Syria, Lebanon), they are often bound together by a common body of Islamic beliefs and practices such as belief in Allah as God, Muhammad as Messenger, and the Quran (i.e., the Holy Book) as the source of ethics and values guiding many aspects of a Muslim's life (Pridmore & Pasha, 2004). Despite the existence of many sects of Islam (e.g., Shia, Sunni, Ismaili) and variations in religious practices, the principal beliefs in Islam and significant religious practices (e.g., daily prayers, fasting in Ramadan, pilgrimage to Mecca) unite the majority of Muslims (Blanchard, 2009).

For Muslims, Islam is considered not only a religion but a cultural tradition that provides a complete framework for all aspects of one's life from birth to death (Von Grunebaum, 2013). Traditional religious practices and beliefs are interwoven in Muslims' everyday life and are continuously reinforced through formal (e.g., education, Sharia laws) and informal interactions (e.g., familial and tribal bonds; Baasher, 2001). As such, it would not be surprising to see that Muslims' views on health and illness are strongly influenced by traditional religious practices, beliefs, and values (Sheikh & Gatrad, 2000). For example, studies suggest a strong association between the Islamic beliefs in an omnipotent God whose will governs all aspects of one's life and the explanations of mental illness (Ypinazar & Margolis, 2006). In line with this belief, Muslims have been found to understand common mental illness (e.g., depressive and anxiety symptoms) as a form of punishment from God or a sign of separation from the divine (Sayed, 2003). Similarly, some view mental illness as a test from God that, if successfully passed, will strengthen their faith (Rassool, 2000). Consistent with these beliefs about the cause and nature of mental illness, preferred healing practices often involve visiting religious leaders, frequent praying, and reciting Quran to restore one's faith and asking for God's forgiveness and guidance

(Al-Darmaki & Sayed, 2009; Padela, Gunter, & Killawi, 2011). More severe forms of mental illness, such as psychotic or manic episodes, are often viewed as being possessed by supernatural forces such as the *jinns* (i.e., supernatural entities believed to live in parallel universe who are invisible to humans; Lim, Hoek, Blom, 2015) or attributed to witchcraft and being cursed by the evil eye (i.e., envious people who may have hexing glance at the person; Abu-Ras & Abu-Bader, 2009; Khalifa & Hardie, 2005). Accordingly, healing practices involve visiting traditional religious healers for prayers or exorcism while psychological or biomedical services are rarely consulted (Al-Adawi et al., 2002).

The literature on the relationship between Islam and help-seeking has been mostly focused on Muslims living in Muslim majority countries while research on Muslims in Western countries is limited (Ibrahim & Mojab, 2023). Research that has examined the utilization of mental health services among Muslims in Western countries has identified various variables contributing to underutilization. Structural barriers such as language difficulties and lack of familiarity with available services have been noted (e.g., Aloud & Rathur, 2009; Salami, Salma & Hegadoren, 2019), as have the stigma surrounding mental illness and fear of discrimination (e.g., Amri & Bemak, 2013; Phillips & Lauterbach, 2017; Zia & Mackenzie, 2021). Muslims who view mental illness through a spiritual lens often turn to faith-based coping strategies, including prayer, alternative healing practices, such as consulting with a sheikh, or seek assistance from their local Muslim community (Abu-Ras, Gheith & Cournos, 2008; Adam & Ward, 2016; Ahmad et al., 2023; Zia, Abdulrazaq & Mackenzie, 2022). These Islamically-informed coping strategies may be used primarily or as an alternative to formal treatment, or in combination with formal treatment (Padela & Zaidi, 2018). However, some studies suggest that Muslims may perceive formal service utilization as a betrayal of their religious beliefs and divine

will, with religious beliefs and cultural practices identified as barriers to service use (e.g., Sabado et al., 2022; Weatherhead & Daiches, 2010).

Despite the existence of some preliminary findings on Muslims' perspectives on mental illness and their help-seeking preferences, the current literature has important limitations. To begin with, the number of studies examining mental illness and coping mechanisms in Muslims is limited, which not only reduces the confidence in the findings but also poses a risk of creating stereotypes about this population. Second, as Muslims are not a homogeneous group, research efforts investigating intracultural variations are essential. Third, the majority of the available studies have been conducted on non-immigrant Muslims in their countries of origin, and thus, may not accurately represent the views and experiences of Muslims living in Western countries, such as Canada (e.g., Al Ali et al., 2017; Al-Solaim & Loewenthal, 2011). Fourth, the available studies on mental illness often employed questionnaires developed based on Western views of mental illness (e.g., Hankir et al., 2017; Khan et al., 2019), which may fail to capture the unique perspectives of cultural groups whose views on mental illness differ from the biomedical model of Westerners. Lastly, while the majority of studies report low service utilization among Muslims, few studies have explored the relationship between cultural beliefs, practices, and help-seeking behaviours. For example, a recent systematic review of 171 articles examining health disparities among Muslims noted that only 19 studies attempted to link Muslim religious identity with their health behaviours, while a significant majority of the studies used religious affiliation as a categorical variable (Padela & Zaidi, 2018).

This research program aims to address these gaps in the literature by expanding the number of studies investigating explanatory models of mental illness in Muslims living in Western cultural settings. To achieve this objective, I employed a methodology that takes into

account intercultural variation and facilitates a comprehensive analysis of *how* culture shapes experiences of mental illness. I also utilized measures with high emic validity, which allowed me to better capture the unique perspectives of the participants. In this research, I focused on the experiences of Sunni identifying Arab Muslims, as they represent a significant population of Muslims in Quebec. Moreover, due to the presence of different religious practices and belief systems among followers of different sects of Islam, it seemed reasonable to focus on one sect (i.e., Sunni Muslims) to understand their mental health needs in more depth.

Explanatory Models of Mental Illness

"Do I have an illness?", "Why am I suffering?", "Who can I turn to for support?", or "Why did this happen to me?" are among the important questions that one may ask when facing an illness, pain, or suffering (Frake, 1961). People often turn to their local knowledge for information and every community provides a diverse set of potential answers and methods for finding solutions to these questions. People may search online, seek advice from friends, consult with a professional, experiment with different diets, or turn to spiritual guidance in order to find answers and remedies. Ultimately, however, how people make sense of an illness depends on the cultural context that gives meaning to the experience of an illness and shapes help seeking preferences (Kleinman, Eisenberg, & Good, 1978). These culturally shared conceptualization of health and illness are referred to as Explanatory Models of mental illness (EMs).

The theoretical framework for the concept of EMs was first proposed by the medical anthropologist and psychiatrist Arthur Kleinman (1973). EMs refers to the complex, culturally-constructed belief system about the symptoms, etiology, and consequences of an illness, as well as beliefs about what constitutes appropriate treatment (Kleinman, 1980; Kleinman et al., 1978; Rüdell, Bhui, & Priebe, 2008). These belief systems are shaped by and shape a range of

contextual components including personal experiences, interpersonal and familial relationships, sociocultural milieu, and dominant norms and values about mental health and illness (Kleinman, 1980; Kleinman et al., 1978).

These culturally constructed meanings that aid people in navigating an illness are frequently taken for granted (Kirmayer, 2004). These meanings, akin to the air we breathe, are often only acknowledged in their absence. However, when people from divergent cultural backgrounds come into contact, these shared meanings can be called into question or even rejected. Clinical encounters between healthcare professionals and patients from different cultural backgrounds are inherently cultural encounters, where discrepancies in the meanings attributed to an illness may arise (Kleinman, 1978). When these encounters become problematic or fail to alleviate the suffering of patients, 'culture' is often blamed as the culprit (Napier et al., 2014). Research findings show that cultural meanings of illness have significant consequences in terms of whether people are motivated to seek treatment (Kirmayer & Bhugra, 2009), their methods of managing symptoms (e.g., Markova & Sandal, 2016), the level and type of support received from social networks (e.g., Renner et al., 2020), their choice of service provider (e.g., Dinos et al., 2017; Erdal et al., 2011; Hagmayer & Engelmann, 2014; Saravanan et al., 2007), and ultimately, the outcome of their treatment (Soto et al., 2018; Vasquez, 2007). The ramifications of these cultural influences can be severe, leading to immense emotional turmoil, impaired functioning, and in extreme cases, even suicide, if people do not receive appropriate treatment (Satcher, 2001). The incongruencies between EMs of a patient and a service provider have been shown to be a barrier to a successful treatment, patient compliance, and satisfaction with treatment (Kleinman, 1980). As such, service providers' knowledge of patients' EMs and the negotiation of the differences in EMs early in treatment has been suggested to be an

important prerequisite when providing culturally tailored treatment (Bhui & Bhugra, 2002). The importance of achieving an alignment between the EMs of the patients and service providers has been recognized by the incorporation of the Cultural Formulation interview protocol in the fourth edition of the Diagnostic and Statistical Manual (DSM, Mezzich, 1995) and later in DSM-5 (Alarcón, et al., 2009; Lewis-Fernández, et al., 2015). Although not yet widely incorporated into clinical practice, the use of this interview protocol has been shown to improve treatment compliance and outcome for ethnic minorities (Aggarwal et al., 2015).

Since Kleinman's proposal of EMs followed by the DSM's recognition of the role of culture in how mental illness is experienced and expressed, much research has been inspired to investigate the embeddedness of EMs of mental illness in webs of social relations and cultural belief systems and practices. For example, in a qualitative study aiming to understand how Syrian refugees in Norway conceptualize and seek help for of symptoms of post-traumatic stress disorder (PTSD), the authors found that what authors called "symptoms of PTSD" were perceived by participants as not symptoms but a normal reaction to extreme experiences of war, displacement, loss, and witnessing violence (Aarethun et al., 2021). The findings align with previous research on Syrian refugees in Western countries (Hassan et al., 2015; Renner et al., 2020), showing that the participants' views of psychological distress are primarily shaped by situational explanatory models that in contrast to Western biomedical or biopsychosocial explanatory models of illness, views suffering as a normal part of life and a typical reaction to traumatic experiences rather than a medical or psychiatric issue requiring professional interventions.

Another study of symptoms of psychosis in a Sub-Saharan African community found that certain experiences, often labelled as hallucination, delusion, or depersonalization according to

the Western biomedical nosology, were often associated with supernatural explanatory models (Pigeon-Gagné et al., 2022). The authors contextualized this finding into the Sub-Saharan African belief systems that recognizes the interaction between the humans and the supernatural entities as essential for well-being. In this view, the material and the supernatural world are inseparable, making it a common experience for humans to contact supernatural entities (Orobator, 2021). From this perspective, what is considered in Western psychiatry as 'losing touch with reality' and therefore pathologized, is viewed as the possession of supernatural power that allow a person to connect with the invisible world and it is perceived to have the potential to be used for healing purposes.

Using in-depth interviews with Nigerian women suffering from perinatal depression, Adeponle et al. (2017) showed that in contrast to a biomedical view of depression, the experience of depression for these women was shaped by a sociomoral explanatory model rooted in beliefs about gender roles and women's status within the household. The women in this study attributed their depressive symptoms to family problems, inability to have a male child, and the shame and guilt associated with the conflict between efforts to meet their needs in a context where gender roles prevent women from assertively communicating their needs.

These findings are among many that provide examples of the embeddedness of EMs in sociocultural contexts and their impact on help-seeking preferences and the underutilization of mental health services. However, is there any evidence suggesting that the match between the EMs of patients and service providers help with service utilization and improve treatment outcome?

Evidence from studies investigating culturally adapted therapy – defined as a treatment modified to match patients' values, context, and worldviews – shows that modifications of the

treatment to match patients' cultural values and beliefs significantly contributes to treatment compliance and improves outcome for cultural minorities (Bernal et al., 2009). For example, in a study investigating EMs of depression among Hispanics living in Los Angeles, findings showed that depression was perceived as a condition caused by the accumulation of social stressors that can be soothed mainly by culturally specific practice of *desahogarse*, referring to the act of expressing one's negative emotions in order to relieve oneself of mental tension (Cabassa et al., 2008). This study demonstrated that adaptation to this belief by service providers increased patient's adherence to the treatment. Similarly, Cambodian refugees with panic attacks were significantly more likely to pursue and complete a successful course of cognitive-behavioural therapy when the components of the treatment were matched with their somatic explanations and expression of panic attacks (e.g., neck-focused symptoms) as well as when culturally appropriate coping skills were employed (e.g., meditating on an image of a lotus blossom; Hinton et al., 2005; Hinton et al., 2006).

In addition to studies focusing on adapting EMs of a single cultural group, meta-analytical reviews comparing the efficacy of culturally-adapted versus conventional treatments across various mental disorders provide further evidence that culturally-adapted therapy produces superior outcomes for cultural minorities (Benish et al., 2011; Griner & Smith, 2006; Smith & Trimble, 2016; Soto et al., 2018). Specifically, a meta-analysis by Benish et al. (2011) demonstrated that the outcome differences favouring culturally-adapted treatments were moderated solely by cultural adaptations of the EMs. Authors concluded that attending to EMs is critical element in treatment of mental disorders in cultural minorities over and beyond variables such as matching ethnicity between patients and service providers, using patients' preferred

language, discussing culture explicitly, and collaborating with important cultural figures (e.g., spiritual healers).

These findings are consistent with *universal healing practices theory* which suggest that while therapeutic healing practices are common across various cultural contexts, a critical component of what makes them universally effective is the degree of fit between the psychotherapeutic explanation of illness offered by the service provided and the sufferer's understanding of illness (Frank & Frank, 1993; Wampold, 2007). According to this theory and demonstrated by empirical studies, then, what is important to the sufferer is not the scientific validity of the EMs; rather, it is the acceptability of the therapeutic explanation of illness offered by the service providers and engaging in therapeutic actions consistent with those explanations (Frank & Frank, 1993; Wampold, 2007). From this perspective, while conventional psychotherapy is appropriate for many dominant cultural groups within North America and Western Europe that share similar EMs, it may be suboptimal in alleviating mental illness for minority groups whose EMs may differ from the conventional views in the West (Wampold, 2001). Thus, what gives legitimacy to EMs is the frame of reference that people use to give meaning to their experiences. Studying EMs, as such, is the study of cultural meanings and cannot be studied in isolation from the cultural context that give rise to them.

As Quebec is home to a diverse group of cultural minorities, it is imperative to study the EMs of these cultural groups to facilitate treatment and improve outcome. EMs are not fixed representations; rather, they are fluid, dynamic, and continuously transforming to make sense of suffering (Dinos et al., 2017; Kirmayer & Bhugra, 2009; Nichter, 2010). As Kirmayer and Bhugra (2009) point out: "At any given moment, the explanatory models offered by (or elicited from) patients will reflect their efforts to understand their predicament, deal with their own fears

and concerns, communicate their needs to the clinician, and position themselves in the clinical relationship and in larger institutional and social contexts in which every explanation has specific consequences" (p. 31). This observation points out to the importance of studying EMs while considering the unique sociopolitical, historical, and power dynamics that may be present in any given society.

Studying cultural meaning while attending to the contextual components is a complex process that requires a theoretical framework and a methodology that can account for such interactive level of complexity. To appreciate the significance of frame of reference in the examination of EMs, consider a study conducted by Chavez et al (2001) on beliefs regarding the risk factors associated with cervical cancer and the use of the Pap exam. Through a comparison of beliefs held by Hispanic women and Anglo physicians, the authors discovered that both groups listed "multiple sexual partners" as a risk factor for cervical cancer. Despite this apparent similarity in beliefs about risk factors, the authors wondered why Hispanic women were less likely to take preventative measures such as using Pap exams. Ethnographic interviews revealed that the listing of "multiple sexual partners" as a risk factor was informed by differing cultural frames of reference for the two groups. While physicians viewed this factor as indicating a higher likelihood of HPV infection, Latinas who listed this risk factor did so based on beliefs associated with morality and virtue, which view sexual behaviours outside of marriage as 'bad'. As a result, Hispanic women who rated this risk factor as higher were less likely to undergo a Pap exam due to the negative cultural association between cervical cancer and immoral behaviours, regardless of the underlying cause. This example highlights why it is crucial not to rely solely on documenting cultural similarities and differences, but instead to 'unpack' them using methodologies that allow for the study of cultural frames of reference. Unpacking culture

entails the critical examination and analysis of the various elements and dynamics that comprise a particular cultural context or experience, exploring the underlying beliefs, values, attitudes, norms, and practices that shape cultural attitudes and behaviours, and the ways in which these elements interact with one another. Here, I outline the theoretical framework and associated and methodologies that allow us to explain the 'Why' and 'How' of cultural variations rather than just the 'What'.

Theoretical Framework

Cultural-Clinical Psychology

Cultural-clinical psychology, with its emphasis on moving toward understanding of why cultural group differences are observed, is the main theoretical framework adopted in this research. The cultural-clinical psychology framework proposed by Ryder and colleagues (2011) advocates for an integration of the cultural psychology perspective (e.g., Markus & Kitayama, 1991; Shweder, 1990) and clinical psychology to better understand how culture shapes variations in human mind and psychopathology. This proposed framework builds upon the concerns of the field of cultural psychology; namely *understating* how culture shapes psychological processes and the *mutual constitution* of culture and mind. In this view, mind and culture "live together, require each other, and dynamically, dialectically, and jointly make each other up" (Shweder, 1990, p. 1). Put differently, minds – in this case, EMs– are the product of cultural context and conversely, cultural contexts have been historically emerged and continue to emerge from minds that interact with the unique demands of a particular time and place – in this case, the unique historical and societal context of living in Montreal as an Arab Muslim.

The concerns of cultural psychology integrated with those of clinical psychology – namely psychopathology and therapeutic interventions – give rise to the new field of cultural-

clinical psychology (Ryder et al., 2011). From this perspective, understanding Arab Muslims' EMs can move beyond conceptualizing it as a product of isolated minds with personal beliefs to being grounded in a system of cultural values and practices that give meaning to those EMs.

With the centrality of meaning in this framework, cultural psychology falls on the hermeneutic or interpretive side of psychology with an emphasis on exploring meaning from the participant's point of view (Kral, Burkhardt, & Kidd, 2002; Swartz, & Rohleder, 2017). This emphasis requires a shift from the researcher's perspective to a local first-person point of view with an acknowledgment of pluralistic realities that may differ from one context to the other. Bruner (1990) states that cultural psychology "seeks out the rules that human beings bring to bear in creating meanings in cultural contexts. These contexts are always contexts of practice: It is always necessary to ask what people are doing or trying to do in that context" (p. 118). For example, while drinking alcohol is forbidden in Islam, many Muslims do drink alcohol. However, the meaning of having alcohol in a Muslim cultural context is very different from having the same experience in a secular cultural context (see Kleinman & Benson, 2006 for a similar argument). It is this imbedded meaning that is of interest to cultural-clinical psychologists. This pluralistic, context-dependent view of culture stands in contrast with a universalist approach that presupposes that psychological concepts are transcultural. Informed by the dominant epistemology of positivism in psychology, a universalist approach assumes that there is an objective 'truth' to be found and the job of psychological research is to use rigorous, often quantitative, methodologies that help stripping away the contextual elements, such as culture, in order to get to the universal laws that govern all minds across cultural groups (Chirkov, 2020; Ray, 2000). Implicit in this view of human psyche is the notion that the psychological worlds of Westerners are the 'baseline' and that if we remove layers of

cultural practices, we can find similar patterns transculturally. For example, the Beck Depression Inventory (BDI), which measures the construct of depression developed in Western psychiatry, has been uncritically translated and used in other cultural contexts assuming that the expression of depression and even the construct itself is a universal phenomenon (e.g., Al-Musawi, 2001; Kojima et al., 2002).

In this dissertation, I use the cultural-clinical psychology framework to overcome some of the implicit biases in the field. From this perspective, EMs and help-seeking behaviours are optimally understood when studied as an interplay between the person and the context. For example, instead of attributing the lack of service utilization among ethnic minorities solely to deficiency in mental health literacy, (see Na, Ryder, & Kirmayer, 2016 for a critique of this view), these perspectives attempt to locate the root of the problem at the dynamic intersectionality of the person and the broader cultural, social, and historical influences that shape behaviours (Kirmayer & Gómez-Carrillo, 2019). This approach is particularly relevant when studying ethnic minority populations, such as Arab Muslims, who face mixed or often contrasting social norms and practices (Syed & Azmitia, 2010).

Cognitive Anthropology

Examining culture from the perspective of aforementioned theory necessitates a methodical approach that (a) moves away from using culture as a categorical variables, such as race, ethnicity, or national origin, and towards increasing its explanatory power, (b) allows investigating culture as both in the world (i.e., the context) and in the head, in the form of internalized beliefs and attitudes, and (d) considers the interaction between the context and the person leading to intracultural variation. Despite the valuable theoretical contributions made by cultural psychology and cultural-clinical psychology, they often fall short in providing a

theoretical foundation and methodology that can: (a) empirically measure, not just assume, culture; (b) statistically distinguish idiosyncratic and shared characteristics; and (c) demonstrate intracultural variation to avoid over-generalization or stereotyping. In this dissertation, I draw from the theories of cognitive anthropology including *Cognitive Theory of Culture*, and *Cultural Models Theory*, and *Cultural Consensus Theory* to demonstrate a way of studying culture that aligns with these theoretical aspirations by providing a systematic method for analyzing and measuring culture. Here, I provide an introduction to these theories and a discussion on how their proposed methodologies can enhance studies of culture.

Cognitive Theory of Culture, Cultural Models Theory, and Cultural Consensus Theory

The Cognitive Theory of Culture

The Cognitive Theory of Culture is a theoretical framework rooted in the field of cognitive anthropology. As cultural psychology endeavours to incorporate culture into its examination of the human psyche, cognitive anthropologists have similarly integrated an understanding of the mind into their analysis of culture (D'Andrade, 1995). According to the cognitive theory of culture, culture is conceptualized as *knowledge* and is seen as a cognitive system that structures the way people perceive, understand, and interact with the world (D'Andrade, 1995). Goodenough's (1957, p. 167) widely cited quotation, "a society's culture consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members" underscores this view of culture as a body of knowledge that enables people to participate effectively in their society. Consistent with this definition, cognitive anthropology's main task is to describe cultural knowledge in terms of its composition and distribution within a social group (D'Andrade, 1995). However, cognitive anthropology acknowledges that, as it is not feasible to study all cultural knowledge, it is necessary to

reduce the scope of the concept by sampling smaller, well-defined parts of the vast information pool that constitute culture (Blount, 2011; Garro, 1986; Quinn & Holland, 1987; Romney et al. 1986). This acknowledgment resulted in the establishment of the cultural models school, a theoretical approach that focuses on describing the organization of knowledge pertinent to specific cultural domains (Quinn, 2011).

Cultural Models Theory (CMT)

Cultural Models. Cultural models (CMs) are defined as "presupposed, taken-for-granted models of the world that are widely shared (although not necessarily to the exclusion of other, alternative models) by the members of a society and that play an enormous role in their understanding of that world and their behavior in it" (Quinn & Holland, 1987, p. 4). An example of a CM is the model of mental illness. People use this model to categorize and understand various forms of distress, such as depression and anxiety. This model provides a framework for understanding symptoms, causes, and potential treatments for these conditions. By using the CM of mental illness, people can simplify the complex and confusing experiences associated with mental distress and take appropriate actions to address them. In this way, CMs serve as cognitive shortcuts that help people manage the overwhelming complexity of the world and make sense of their experiences.

Variability in Cultural Models. CMs are just that: *models*. Much like the vocabulary and grammar of a language provide a foundation for communicating effectively while at the same time people use the same words and grammar to create unique sentences, cultural models allow for variation in behaviour and expression among members of a community (Goodenough, 2003). An important contribution of CMT is the recognition that cultural knowledge is not homogeneously shared among members of a cultural group. There are four

sources of variability in CMs. First, some people may know more about some cultural domains than others (Dressler & Bindon, 2000). Similarly, no two people's understanding of a CM is exactly the same, nor is any one person's representation entirely accurate (Dengah, 2014). Second, CMs may be strongly or weakly shared, or they may exist in alternative views of the same concept, such as contested views on the etiology of mental illness (e.g., biomedical versus spiritual causes of MI; Dressler, 2018). Third, even when a CM is strongly shared, different subgroups may emphasize an aspect of it more than others. For example, the concept of marriage is a widely shared CM in North American societies; however, there are variations on the emphasis put on the function of marriage (e.g., love versus raising a family; de Munk, Dudley, & Cardinale, 2002). Fourth, people may choose to depart from these norms or may be constrained by external forces to act in accordance with cultural models (Dressler & Bindon, 2000). Immigrants, for example, may face challenges in enacting their CMs due to the values and norms of the societies they reside in, which may conflict with their own cultural expectation and practices (Andrews, 2019).

The Intersubjective Nature of Cultural Models. Despite many sources of variability, what makes these models 'cultural', as opposed to personal, is that they are *intersubjectively* shared (Chentsova-Dutton & Ryder, 2020). Even when people depart from these models, CMs embody the intersubjectivity that results from the understanding that these beliefs are widely shared within the social context, and the recognition that others may act in expected ways in a given context and interpret the behaviours of others in a manner congruent with one's own perception (Dressler, 2018; Gatewood, 2012). Perception of intersubjectively shared values may differ from values that most group members actually endorse (Wan et al., 2007). For example, while many people may not hold a personal stigma about mental illness, they may

perceive a shared negative view towards people with mental illness in the public sphere; thus, for example, being mindful of disclosing their mental health struggles with friends. Drawing its power from sharedness, intersubjective knowledge can have a significant impact on behaviour, sometimes even more so than personal beliefs (Chiu et al., 2010). The perception that drinking is desirable, for instance, may lead college students to drink more even when their personal values are inconsistent with frequent drinking (Prentice & Miller, 1993).

The Function of Cultural Models. Despite their heterogeneity, CMs have an important function: They simplify complex experiences, emotions, and events by categorizing and providing a basis for understanding. CMs mainly facilitate prototype-based processing, where people use typical examples as a reference to understand new information (Quinn & Holland, 1987). Considering human beings' limited cognitive resources, CMs play a crucial role in enabling people to navigate and function within their cultural milieu, as it affords them with a foundation of knowledge to comprehend and respond to new situations without constantly having to evaluate and consider various possibilities. Moreover, the intersubjectively shared quality of CMs makes one's behaviours intelligible to others and allows people to interpret others' behaviours more confidently (Dressler, 2018; Quinn, 2011). An example of shared intersubjective knowledge that helps someone navigate a social situation could be social norms related to a formal dinner party. At a formal gathering, there are certain expectations to follow such as not starting to eat until everyone is served and holding utensils correctly. These norms are part of a shared cultural model that people have internalized and are expected to follow. If a person follows these models, they are more likely to feel comfortable in the social situation, as well as to be perceived positively by others. Conversely, if they are unaware of these norms, they may behave in ways that are perceived as

inappropriate, which could negatively impact the impression they make on others. As illustrated in this example, the CM of a formal dinner party is not created in a vacuum and can be contextualized within broader CMs that dictate norms on appropriate social interactions, boundaries, and status (Chentsova-Dutton & Ryder, 2020).

Cultural Models as Motivating. In addition to being deeply rooted in boarder social norms and values, CMs have a directive force. Namely, people do not just passively conform to CMs but that CMs are inherently *motivating* (Quinn & Holland, 1987). CMs help people to fulfill culturally defined norms, needs, and goals. As D'Andrade notes, "through the process of socialization individuals come to find achieving culturally prescribed goals and following cultural directives to be motivationally satisfying, and to find not achieving culturally prescribed goals and not following cultural directives to be anxiety producing" (1984, p. 98). For example, for many Americans, 'success' is a culturally meaningful concept that motivates a person to pursue accomplishments that would allow one to view oneself as 'successful'. Failing to live in accordance with this culturally sanctioned goal can lead to a view of oneself as incompetent with consequences for well-being (Quinn & Holland, 1987). The motivating nature of CMs is particularly important when studying how culture shapes the experience of mental illness as cultural models can have a direct impact on self-image and how happiness is defined (De Leersnyder, Kim, & Mesquita, 2015; Diener & Diener, 1995; Kitayama, & Markus, 2000).

Cultural Models Versus Personal Models. As previously indicated, the shared consensual nature of CMs does not contradict the continued relevance of personal models. These personal models can emerge from the internalized CM that has been adopted as one's own, idiosyncratic perspectives shaped by personal experiences and background, or the fusion

of the two (Jones et al., 2011). The CMT, therefore, accounts for culture as both internalized subjective beliefs held by the person and the broader shared intersubjective knowledge shared among a group, as well as considering the interaction of the two. Through this lens, CMT offers insight into both the subjective and intersubjective aspects of cultural influence in predicting behaviours.

Cultural Consensus Analysis

Cultural Consensus Analysis. The usefulness and applicability of a CMT has been strengthened by the advent of *Cultural Consensus Analysis* (CCA; Romney, Weller, & Batchelder, 1986). As both a statistical method and a theoretical model, CCA provides a framework through which the degree of sharing within a particular group can be assessed. Rather than assuming that culture is shared, CCA provides a formal model that statistically demonstrates the degree of sharedness about a specific cultural knowledge. CCA also provides guidelines on how shared a CM must be to qualify as cultural rather than an average of individual-level characteristics (Borgatti & Halgin, 2011). To determine the sharing of cultural knowledge, respondents are asked a series of standardized questions that sample their knowledge within a cultural domain. The first step in CCA is to determine whether or not there is knowledge sharing by analyzing the correlation matrix among respondents. The first two eigenvalues are then extracted from the correlation matrix using factor analysis, and if the first eigenvalue is substantially larger than the second, there is strong evidence of consensus, suggesting that respondents are drawing from the same pool of cultural knowledge to answer the questions. In this sense, CCA can reliably distinguish between the intersubjectively shared cultural knowledge and idiosyncratic beliefs. Afterwards, CCA calculates a set of coefficients that demonstrate the degree to which each person agrees with the overall consensus, known as

cultural competence. Cultural competence shows how much each person knows about the overall shared model with higher coefficients suggesting higher knowledge of the shared CM. Lastly, CCA estimates a *cultural answer key*; that is, the average of individual responses to the questions, weighted by the respondents' cultural competence coefficients, providing a cultural best estimate of how a knowledgeable member of a social group would respond to the questions (Romney, Weller, & Batchelder, 1986). Another noteworthy characteristic of CCA is that it can produce accurate estimations with a relatively small sample size, provided there is a high level of agreement among respondents.

Residual Agreement Analysis. In addition to determining the degree to which cultural knowledge is shared, CCA provides a methodology to address issues related to intracultural diversity within the same social context. Even when a high degree of agreement exists, CCA acknowledges that there may be additional patterned deviation from the shared model (Boster & Johnson, 1989). By providing a cultural answer key, CCA enables the calculation of difference between individual responses and the shared model, which is known as *residual agreement analysis*. Residual agreement refers to systematic deviations from consensus that can encompass a range of variations ranging from highly contested cultural models to slight difference in emphasis within a strongly shared cultural modes (Dressler, Balieiro, & Dos Santos, 2015).

Cultural Consonance. While CCA and residual agreement analysis can identify the degree of sharedness and variability within a cultural model, they do not reveal how a person is connected to this shared knowledge. To address this issue, Dressler (2005), developed the concept of *cultural consonance* as an extension of CCA. Cultural consonance enables researchers to determine whether culturally shared values are personally adopted or enacted as

internalized cultural beliefs and values (Dressler, Balieiro, & Dos Santos, 1997). Cultural consonance links a person's behaviour or beliefs with the widely shared intersubjective knowledge and is defined as the degree to which a person's beliefs and behaviours align with the culturally agreed-upon prototypes (Dressler, 2005, 2018; Dressler at al., 2005). The concept of cultural consonance makes a significant contribution to cultural research by providing a meaningful and reliable way to position individuals along an empirically identified spectrum of cultural practices. Furthermore, studies on cultural consonance have consistently demonstrated a strong association between congruence with one's cultural models and positive indicators of both physical and psychological health (Dengah, 2014; Dressler et al., 2007; Dressler & Bindon, 2000; Snodgrass et al., 2013).

Addressing Problems Associated with Studying Culture

Scholars have long recognized the influence of culture in shaping emotional experiences. However, research in this field has faced several challenges due to the lack of methodological and conceptual clarity in studying the 'black box' of culture (Dressler et al., 2007; Lopez & Guarnaccia, 2000). First, a major challenge in researching culture is resolving the dual nature of culture, which pertains to the question of whether culture is a property of individuals or an aggregate (Dressler, 2018). While culture is inferred from people, it also has an 'out there' quality that suggests it is beyond individuals. Moreover, research often assumes culture based on averaging individual-level characteristics, while studying culture as intersubjectively shared has been more challenging (see Chiu et al., 2010 for a critique of this view). Conceptually, a cognitive theory of culture and CMT account for this duality by recognizing that cultural knowledge is both stored in human minds and shared among members of a group or society. By conceptualizing culture as knowledge, it is possible to continue studying culture within the

person, while recognizing that the intersubjective nature of culture is what makes it shared. Methodologically, CCA provides an empirical way to investigate if a phenomenon is cultural or personal by measuring agreement between people. CCA enhances the explanatory power of culture in shaping emotional experiences by making it operational and clear.

Second, another major challenge has been to explain how the culture and the individual are linked (Chentsova-Dutton, Tsai & Gotlib, 2010; Dressler, 2018). Building on CCA, cultural consonance theory can help to explain the link between the individual and culture by providing a framework for understanding how people internalize cultural norms and values, and how this internalization affects their health and well-being (Dressler, 2005; Dressler at al., 2005). Specifically, cultural consonance method places people on a shared cultural spectrum, providing a valid and empirical way to define their cultural beliefs and behaviours. By doing so, it highlights how cultural knowledge impacts personal practices (Dressler at al., 2013).

Finally, cultural studies have faced challenges in accounting for intracultural variation. As described previously, the CMT overcomes this challenge by recognizing various sources of variability in cultural knowledge. Similarly, the cognitive theory of culture views culture as a form of knowledge and acknowledges that people may differ in their possession of this knowledge (Dressler at al., 2013). Methodologically, the degree of sharedness assessed by the CCA indirectly measures variability. Additionally, the residual agreement analysis can specifically identify areas of disagreement within a cultural model, shedding light on the contested aspects of cultural knowledge as well as the shared aspects (Dressler, Balieiro, & Dos Santos, 2015).

CCA and CMT as a Mixed-Method Approach to Studying Culture

The adoption of CCA and CMT involves a methodological path combining qualitative and quantitative data gathering and analysis (Bennardo & De Munck, 2014). At the same time, the acquisition of both types of data is grounded in ethnography, which is viewed as a fundamental basis for conducting research in the field of cognitive anthropology (Bennardo & De Munck, 2020). Ethnography, which originated in the anthropological tradition, is defined as the process of understanding people by learning directly from them (Roper & Shapira, 2000). It aims to provide an accurate description of people's stories, as told in their own words and within their local context. By immersing themselves in the social world of the participants, researchers can gain a deeper understanding of the meanings behind people's social behaviour within a cultural context (Fetterman, 2019). Ethnographic methods are particularly useful in the beginning stages of conducting CCA as it allows researchers to sample the elements of a CM by documenting the behaviours, beliefs, and values of people within the cultural group. While ethnographic studies have traditionally been time-intensive, this dissertation utilized a research methodology known as *Quick Ethnography*. Quick ethnography combines traditional anthropological techniques for collecting cultural data, such as informant interviews and participant observation, with innovative methods such as free listing and pile sorting (Handwerker, 2001; see Chapter 2 and 3 for the details on these ethnographic techniques). By integrating multiple data collection techniques, quick ethnography allows for a more efficient and comprehensive analysis of the cultural phenomenon under study, while still maintaining the depth and richness of traditional ethnographic research.

Consistent with the mixed-methods nature of most CCA studies, an *Exploratory Sequential Mixed-Methods Design* (Creswell & Creswell, 2018) was adopted in this research project, consisting of three sequential studies building on the results of the preceding ones. The

initial stage involved exploratory phases, which entailed gathering ethnographic and qualitative data. The results of the exploratory stages were then used to generate relevant research questions and develop a survey that was subsequently quantitatively analyzed. The use of mixed-methods research design provides several advantages over single method designs (Dawadi, Shrestha & Giri, 2021), particularly when exploring cultural contexts about which little is known (Karasz & Singelis, 2009;). First, mixed-methods research design allows the choice of method to be pragmatically guided by research questions, rather than prematurely committing to a methodology (Creswell & Plano Clark, 2011; Creswell, 2007). Adopting a pragmatic position, the researchers can take a pluralistic stance in their methodological considerations, allowing them to gather various types of data to form an understanding with both depth and breadth (Enosh, Tzafrir, & Stolovy, 2014; Tashakkori & Teddlie, 1998; Poth & Munce, 2020). Second, as any study of culture is indeed a study of meaning, and as meaning is never independent from context, the ethnographic and qualitative stages of a mixed-methods design can help researchers to attend to contextual contributors that can increase the ecological validity of the findings while the quantitative stages can increase the reliability of the results (Groleau, Pluye & Nadeau, 2007). Third, mixed-method designs can help researchers to form more rigorous conclusions through triangulation, allowing the strengths of each method to offset the weaknesses of the others, and assess data for convergence or divergence (Plano Clark & Ivankova, 2016). Finally, using a mixed-methods design helps researchers to create culturally relevant measures (Karasz & Singelis, 2009). Rather than relying on pre-existing measures often created for WEIRD populations, the results of the exploratory stages can be used to construct emically valid instruments that are tailored to the unique needs of the population of interest (Nastasi et al., 2007). Due to these advantages, I believe that using a mixed-methods design is useful for the

present project as it helps one to move beyond using 'being Arab Muslim' as a categorical variable and synthesize data to form a nuanced understanding of the cultural processes that shape what it is like to think about MI as an Arab Muslim living in Montreal.

The Current Project

This dissertation uses a mixed-methods approach to examine the disparities in utilization of mental health services among Arab Muslims residing in Montreal. Specifically, the study seeks to investigate the mental health needs of this population by addressing the following research questions: (a) What are the values and practices that comprise a good life for Arab Muslims? (b) What are the common EMs of MI among them? (c) What are their preferred ways of help-seeking? and (d) How do cultural values, EMs, and contextual variables interact to predict their help-seeking preferences? Additionally, this dissertation aims to showcase the utility of CCA as a method for addressing the conceptual and measurement challenges that frequently arise in cultural studies. By operationalizing culture, the study intends to generate findings that are both reliable and emically valid.

This dissertation comprises three studies. Study 1 employs the ethnographic technique of free listing to elicit salient cultural concepts in three domains of interest, namely values and practices, mental illness, and help-seeking. These concepts are then further explored in Study 2, which employs the pile sorting technique to investigate the relationship between them. In addition, Study 2 incorporates a qualitative interview as participants complete the pile sorting task. Finally, the results of the first two studies are used to develop culturally relevant measures that are utilized in Study 3, an online survey designed to test research hypotheses derived from the previous findings. Figure 1 presents the order of the studies and the corresponding sample sizes.

Reflexivity

As Matsumoto and Juang (2003) argue, culture resembles a filter through which information is distorted and coloured; thus, everyone can be prone to ethnocentrism. Scholars, therefore, have advocated for the centrality of researchers' reflexivity (i.e., critical self-examination) not only in qualitative research practices (Finlay & Gough, 2003; Levitt et al., 2018) but also in studies that aim to reduce the impact of ethnocentric biases (Clancy & Davis, 2019). As researchers have the power to make decisions about study design and choose what to highlight in their report, the questions "who speaks and on behalf of whom and how" are important to address in ethnographic inquiries (Reed-Danahay, 1997, p. 3). I agree with Braun and Clarke (2006) that the themes or findings do not simply and objectively 'emerge' from the data; rather, the researcher's theoretical position, research questions, interests, cultural background, and personal history shape the interpretation of the results. This stance is consistent with the interpretive epistemological stance adopted in this dissertation that recognizes that meaning is constructed through interpretation, which is itself influenced by variables such as power, context, and intersectionality. Despite the criticism received for perceived lack of reliability within interpretivism (see Pervin & Mokhtar, 2022, for a review), I argue that reliability within this framework can be achieved through practices such as rigorous and systematic research methods; transparency about the research process and decisions; reflexivity and acknowledgment of biases; use of multiple methods of inquiry and triangulation; and contextualization of the findings. Consistent with guidelines on reflexivity (Clancy & Davis, 2019), here I provide a description of researcher's background and reflections on interaction with study participants.

Researcher's Background and Impact on Research Process

As the author of this dissertation, I was the primary researcher involved in making decisions about the study design, data gathering, interviewing participants, and data analysis and interpretation. In this section, therefore, I focus on my background and my observations during my interactions with participants.

Throughout the research process, I grappled with determining my position as either a cultural outsider or insider. On one hand, my position as an Iranian Canadian woman, raised in a Muslim country, being an immigrant, and possessing a dual cultural identity classifies me as at least a partial insider to a majority of participants. However, there were important differences that would be sufficient to confer on me the status of a cultural outsider. First, although I am well-acquainted with Islamic values and practices due to my upbringing, I was aware that my Iranian background may differ from the Sunni and Arab values and practices endorsed by the participants. Second, my secular worldview and absence of religious affiliation would strongly classify me as an outsider. Lastly, as a researcher/practitioner trained in Western models of research and psychotherapy, I endorse biopsychosocial and secular models of mental health which may be different from those of the participants.

My status as a partial insider was valuable in facilitating data gathering and conducting interviews. My knowledge about cultural norms and practices allowed me to gain access to community centres and manage complex interactions. For example, my knowledge of appropriate eye contact allowed me to navigate the intricacies of gender-segregated communities and differing social norms between men and women. As an Iranian Canadian, I was able to relate to many participants' experiences of having to maintain dual frames of reference and found myself empathizing with their stories. The majority of participants noted feeling comfortable

sharing their views with me and expressed gratitude for having a platform to voice their experiences. Some participants described the interview sessions as "therapeutic" as they were able to share their views with "someone who understands". As many participants identified as female, my gender as a female researcher further helped with participants' engagement in the tasks and questions.

My partial insider status also had its limitations, as some participants may have assumed that I share their cultural knowledge and, therefore, did not explain some of the 'obvious' culturally shared concepts or values. It is possible that an outsider to this community, without any background knowledge about Islam, may have been able to collect more details about basic Islamic values and practices during the interviews. Nevertheless, I believe that establishing trust through shared identity made it possible for participants to share their views on spiritual EMs of mental illness as well as what is like to reconcile their values and practices with those of the host community and importantly, Western mental health professionals.

My outsider status was useful in keeping me on track with research goals and questions. As a mental health professional trained in Western models of psychotherapy, I have personally encountered the challenges inherent in offering treatment to people from cultural backgrounds that hold a different worldview than mine. My primary motivation for conducting this research was to understand the experiences of the people on the other side of the clinical encounter, particularly groups that are often marginalized or stereotyped. This interest and the relevant research questions allowed me to collect an exploratory but purposeful set of data while also reflecting on implicit biases that may have impacted my interactions with participants or forming research questions. For example, I recognized some of my implicit biases, such as assuming that

seeking professional help is superior to other forms of help-seeking, and the belief that people can either hold a scientific EM or a spiritual one, with little integration between the two.

Additionally, my outsider status proved to be helpful in a serendipitous way. During my interactions with participants, I noticed a pattern of questions about the *intention* behind the study. Participants often wanted to know why I, as a cultural outsider and a researcher affiliated with a Western institution, would be interested in conducting research on the Muslim community. Two themes emerged from these inquiries: *apprehension*; participants worried that the study results would intentionally or inadvertently portray a negative view of Muslims, and *gratitude*; participants expressed being grateful that their voice is being captured. These contextual observations brought the issue of cultural mistrust to my attention, which further allowed me to fine-tune my research questions and data analysis.

Despite efforts to reassure participants of our well-intentioned research questions and research team, it is possible that cultural mistrust and power imbalance prevented participants from sharing aspects of their culture that they deemed as 'culturally unsafe'. Nevertheless, I believe that the presence and contribution of our Arab Muslim research assistants as cultural insiders helped establish enough cultural trust to gain preliminary but valuable insights.

Finally, these observations have put me in touch with the power that I hold as a researcher. Through their questions, I noticed that participants were highly aware that they are not going to be 'in control' of the story that is going to be written about them in this research project. Throughout the writing of this dissertation, I have grappled with the responsibility that comes with accurately representing a cultural group to which I am more of an outsider than an insider. As such, I am cognizant that our findings can be interpreted as a 'piece of the puzzle' rather than a whole picture. Rather than claiming expertise in representing the mental health

needs of Arab Muslims, my goal in this exploratory research is to generate questions relevant to their needs to help reducing mental health disparities for ethnic minorities.

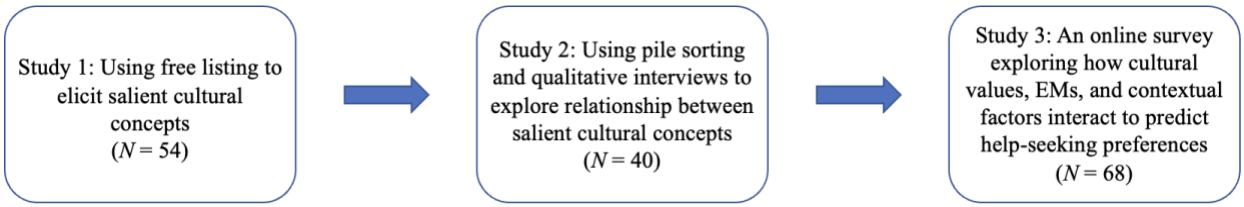

Figure 1. Research phases and sample size.

CHAPTER 2

Eliciting the Elements of a Cultural Domain

The primary aim of this program of research is to understand the cultural models that shape help-seeking choices for Arab Muslims living in Montreal. The first step in cultural modeling is to select relevant cultural domains and verify that they exist within the culture context of interest (Dressler, 2018). In other words, it is important for researchers to investigate whether their domains of interest are also important to the population being studied. Although a purely emic approach – where the research questions are devoid of any expectations and biases – is not possible, cultural domain analysis requires researchers to remain open to constructs and terms that are salient to the studied population (Dressler, Balieiro, & Dos Santos, 2018).

An emic approach does not prevent researchers from selecting domains derived from theory (Dressler, 2018). In the present study, I selected the EMs of MI as a domain to investigate due to previous research showing the link between culturally shaped EMs of MI and help-seeking choices (e.g., Kirmayer & Bhugra, 2009; Markova & Sandal, 2016; Renner et al., 2020). In addition to its theoretical relevance, I hoped the exploration of the selected domain would help clinicians adapt their interventions to the ways that MI is understood by Arab Muslims. Consistent with an emic approach, I then conducted preliminary research to determine whether 'mental illness' is a construct that is frequently mentioned within Arab Muslim communities and, if so, to determine what Arabic terms are used to refer to this construct. After consulting professionals working with this population, speaking with members of this cultural group, and reviewing social media content, I confirmed that mental illness is, in fact, a relevant construct to Arab Muslims. Through this research, I identified two terms that are commonly and interchangeably used in Arabic to reference mental illness: (1) *diseases of the self/psyche* and (2)

diseases of the brain. These two terms were used when referring to MI in all Arabic translations of the measures used.

Another cultural domain I selected for exploration included the most important values and practices that shape the everyday narrative of Arab Muslims and guide their interactions with the world. This domain was selected because cultural models of MI – generally conceptualized as deviation from the norm – can be better understood in the context of what is considered 'valued' or 'normal' (Chentsova-Dutton & Ryder, 2020). Exploration of concepts such as important life goals and personal identity are often not included in research investigating EMs, which prevents researchers from mapping *how* cultural values shape EMs and help-seeking choices. For example, what does it mean to be a *Muslim,* and how do fundamental aspects of one's identity influence views on MI? The present study maintained a dual focus on salient cultural values as well as the EMs and help-seeking choices.

Free Listing: Eliciting Elements of a Domain

Upon selection of the cultural domains of interest, researchers can investigate what knowledge comprises each domain (Borgatti,1998). For example, what do Arab Muslims think about when asked about the domain of MI? While there are various ways of investigating what knowledge is included within each domain, such as interviewing or natural observations of everyday narratives, one of the most straightforward, commonly used, and reliable elicitation techniques is *free listing (*Borgatti,1998*).* Free listing is an ethnographic tool that allows researchers to establish the boundaries and coherence of a cultural domain, sample its elements, and determine the extent to which items are culturally salient (Borgatti, 1999; Weller, 2014). Free listing involves asking participants to list all the elements that they associate with each domain and establishes an emic but systematic process for exploring each domain of interest, as

well as investigating how items listed are linguistically expressed (Weller & Romney, 1988). Further, this approach helps to distinguish what is culturally shared from what is idiosyncratic or personal (Borgatti,1998). For example, if North Americans are asked to list what they think a brunch should include, items such as *coffee* and *eggs* are likely to be frequently mentioned, leading an outsider to infer that coffee and eggs are popular brunch items in North American cultural contexts. In contrast, items that are listed infrequently, such as *spaghetti*, can be seen as personal or uncommon preferences. Through this simple exploratory method, what is culturally shared can be inferred as a starting point and later confirmed through further analyses.

Although the sampling elements of a domain are not always exhaustive, free listing allows researchers to construct the prototypes from which more complex cultural scripts and models are built (Dengah et al., 2020). People tend to list the most prototypical concepts first, making free listing a useful method for eliciting the most cognitively accessible propositions included in a cultural domain (Dressler, 2018). Items listed more frequently and earlier in the list are often more accessible in people's mind when thinking about a domain (Weller & Romney, 1988). For example, if lay people are asked to list features of a bird, the *ability to fly* is likely to appear frequently and early on their list. While this feature does not describe birds that do not fly, such as ostriches, it nevertheless gives us an idea of what a prototypical bird looks like to people (see Rosch, 1975 for a study on this topic). Asking the same question from a bird expert, however, would mostly likely lead us to a more scientific prototype of the birds; one that indicates the possession of wings and feathers instead of the ability to fly.

As seen in the previous example, different prototypes can be cognitively accessible to different groups. A prototype of a MI, for example, might be more informed by a biopsychosocial model for a scientist compared to a lay person, rendering it difficult to explore

EMs of MI in populations whose EMs might differ from those of the researchers. Free listing, by relying on participants to define the cultural domain in their own words, is particularly helpful for studying cultural groups that are infrequently studied, if at all, and is useful when researchers wish to minimize the impact of their expectations and preconceptions on shaping participants' responses (Dengah et al., 2020; Dressler, 2018; Romney, Weller & Batchelder, 1986). Thus, free listing can be a helpful first step in studying EMs in Arab Muslims as their cultural models are understudied.

In addition to avoiding biases related to scientific and Western models of MI, researchers must be vigilant about operating based on stereotypical assumptions about a cultural group. This vigilance is particularly important with Muslims – a population that is part of the Western political and social narrative (Wilkins-Laflamme, 2018). Given the overwhelming amount of media coverage, political discourse, and public assumptions about Muslims, free listing uniquely protected us, as cultural outsiders, from making misleading assumptions about our participants.

Method

Participants

Seventy-five participants were recruited for this study. In order to participate, participants had to: (a) self-identify as Arab and Muslim; (b) be fluent in either Arabic or English; (c) live in Montreal or Greater Montreal; and (d) be over 18 years of age. Fifteen participants were excluded from the study for providing incomplete responses or answers that appeared irrelevant to the questions. Six participants were excluded from the study due to not meeting the inclusion criteria. Table 1 shows the demographic characteristics for the 54 participants who were included in the study. Participants greatly varied in the length of time they lived in Canada, ranging from 7 months to 31 years and 9 months and with an average length of 11.93 years (SD = 9.15).

Participants varied in terms of country of birth as well as previously living in a range of Arab and non-Arab countries. In addition, participants reported various ranges of annual household income (ranging from less than $25,000 to more than $100,000 CAD) and education level (ranging from high school diploma to graduate degree). Seventy-four percent of the participants identified as female.

Recruitment

The study was conducted from February to June 2019 after receiving approval from the Concordia University Human Research Ethics Committee. Sampling from the community was prioritized to increase the demographic diversity of the sample with regards to country of origin, age, employment status, education level, and citizenship status. In addition, snow-ball sampling was used to increase the likelihood of obtaining a reasonable sample size.

Most participants were recruited by a flyer circulated on social media (e.g., Facebook, Instagram, and Kijiji, WhatsApp) and in local Islamic community centres, mosques, and campus praying rooms. Our research assistants and I visited local community centres and mosques to establish trust and gain rapport with the community. In addition, we attended four religious seminars and culturally important events such as Eid Al-Fitr (Muslims' celebration of the last day of the fasting month) to distribute study flyers among Muslims attending these events.

While we hoped to recruit both male and female Muslims, we faced difficulties reaching male participants. As most Islamic mosques and community centres are gender segregated, and access to the 'male section' of the centres was limited for the female principal investigator and research assistants. We attempted to address this limitation by posting flyers online and through snowball sampling. Nevertheless, we found that women were more likely to participate than men.

Procedure

Interested participants contacted the principal investigator by email or requested to be contacted by the researchers. Participants were informed that the study involved a pen-and-paper questionnaire completed in-person. Initially, interested participants were invited to the Culture, Health and Personality Laboratory at Concordia University to complete the study; however, as many community members indicated that the commute to the lab would prevent them from participating, participants were given the choice to complete the study in the lab or at a community centre. Unless participants were fluent in English, a trained and Arabic-speaking research assistant was present in meetings in order to facilitate communication in Arabic.

During the completion of the study, participants often had questions about the researchers' 'intentions' to conduct a study related to Arab Muslims. Due to the frequency of these questions, I decided to informally make note of these observations. These observations were later used to understand the themes emerging from the qualitative analysis and are discussed in more detail in Chapter 3.

Participants took between 30 to 60 minutes to complete the study. As a compensatory indemnity for participating in the study, participants were informed that their name will be entered into a draw to win $100. Four draws were made when the study was finished, giving each participant an approximate winning chance of one in 20.

Measures

Demographic Information

Participants completed a brief questionnaire screening for inclusion criteria and inquiring information regarding their age, gender, relationship status, education level, employment,

household income, language, place of birth, ethnicity, citizenship status, and length of residence in Canada.

Free listing Questionnaire

Participants completed a free listing activity in which they were asked to list words or phrases that came to mind in response to each question. The two cultural domains of interest in this study were the domain of *important values and practices* and the domain of *mental illness*. Nine questions were generated to capture different aspects of each of these two domains. For example, instead of asking participants to discuss MI as a general concept, I asked them to tell me about various aspects of MI such as symptoms, causes, and consequences of MI. In this study, I refer to aspects of each domain (e.g., symptoms of MI within the domain of MI) as a *subdomain.*

To study important values and practices, I asked participants to tell us about the life goals most important for a Muslim to pursue, as well as the most important aspects of a Muslim's identity. Life goals and identity are two subdomains that are often used in previous research interested in capturing salient aspects of an everyday narrative of cultural groups (e.g., Dressler, Balieiro, & dos Santos, 2017). Below are the two questions exploring the domain of important values and practices:

Subdomain of life goals: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background, think are the most important goals in life."*

Subdomain of identity: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background think are the most important characteristics of a Muslim."*

There were seven additional questions concerning the knowledge held by the participants in regard to EMs of MI. As noted previously, EM refers to a person's culturally constructed

belief system about the symptoms, etiology, and consequences of an illness, as well as beliefs about what constitutes appropriate treatment (Kleinman, 1980; Kleinman et al., 1978). Studies show that lay people categorize their knowledge of illnesses in roughly the same way described in this paragraph (Kleinman, 1980). Thus, through the seven questions, each of these subdomains of EMs were explored separately. Given my interest in exploring the relationship between views on MI and choices of help-seeking, EMs were broadly categorized into two large domains of *mental illness* and *help-seeking preferences*. Participants were asked to list words and phrases that come to mind when thinking about the subdomains of *symptoms*, *causes*, and *consequences* of mental illness. Below are the three questions exploring the domain of *mental illness*:

Subdomain of symptoms of MI: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background think are the symptoms of mental illness."*

Subdomain of causes of MI: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background think causes mental illness."*

Subdomain of consequences of MI: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background think are the negative consequences of having a mental illness for one's life."*

The remaining four questions focused on sampling participants' cultural knowledge about *help-seeking preferences*. These questions explored the subdomains of *recommendations* given to a person experiencing mental illness, and included the following: *sources of social support*, *sources of professional help*, and finally, the *characteristics of an ideal healer or therapist*. Below are the four questions exploring the domain of *help-seeking preferences.*

Subdomain of recommendations to cope with MI: *"Please list 6 to 10 words or phrases to describe what you or people from your cultural background would recommend to a Muslim with mental illness to feel better."*

Subdomain of sources of social support: *"Please list 6 to 10 people that you or people from your cultural background suggest a Muslim with mental illness to get help from."*

Subdomain of professional help: *"In addition to the people you have just listed, please mention other professionals you or people from your cultural background think a Muslim with mental illness can get help from. You can list up to 6 professionals."*

Subdomain of characteristics of a therapist: *"Imagine a healer that a Muslim with mental illness can trust and feel comfortable with. Please list 6 to 10 words or phrases to describe what you or people from your cultural background think are the characteristics of such a healer."*

All questions were worded in such a way to facilitate a comprehensive and more elaborative sampling of elements of the domains of interests. By asking people to list not only what they personally think, but also what they think people in their community think, I was able to obtain a wider range of responses. As such, the generated lists encompassed both the individual and intersubjective knowledge available to participants.

Translation of the Research Material

Participants were offered the choice to complete the study in English or Arabic. I adopted a collaborative and iterative approach to translation in which conceptual equivalence is achieved through multiple stages of translations and discussion with team members who possessed relevant cultural and linguistic fluency (Douglas & Craig, 2007). Although back translation has been historically used as a common method of translation (Brislin, 1970), the use of parallel translation and a team-based approach has been recently advocated for research settings where

establishing equivalence in meaning requires more than a direct or literal translation of the concepts (Harkness, 2003). A team-based approach has been shown to provide the most fitting translation as it allows researchers to consider and critique alternative versions through discussions with team members that possess relevant linguistic, cultural, and research expertise (Harkness & Schoua-Glusberg, 1998).

Consistent with this approach, the study materials were first independently translated by a professional translator, and also translated by three research assistants fluent in Arabic. The parallel translations were then compared and discussed in a review meeting involving all members of the research team. All research assistants identified as either members the Sunni Muslim community or as native Arabic speakers. Disagreements in translations were discussed in the review meeting until consensus was achieved. A pilot study of both Arabic and English version of the research questionnaire was then conducted to ensure the comprehensibility, relevance, and the clarity of the research items.

Data Analysis

Data Coding

As participants were asked to list words and phrases, most participants provided single words or short phrases in their lists; allowing the coding to remain as close as possible to terms used by participants. Before coding the data, synonyms were first reconciled. For example, items such as “religious leaders”, “imams”, and “sheikhs” were grouped together. Moreover, examples of a term were included under a general theme. For instance, if a participant mentioned going to a specific mosque or named a well-known imam, that example was categorized under the general code of “going to the mosque” or “seeing an imam”. Decisions about what constitutes a synonym, or what qualifies as an example of a theme, were made collectively through discussion with team

members. If multiple themes were mentioned in one statement (e.g., "working so you can give back to the community"), the themes of "working" and "giving back to the community" were coded separately and assigned ranking numbers depending on which one was listed first by the participant. However, if two themes were mentioned frequently together, such as "preserving religion" and "practicing religion", I combined the two into one theme of "preserving and practicing religion" as it appeared that the two terms are semantically linked. I attempted to stay as close as possible to the terms used by participants to avoid putting the terms in categories that may contain multiple concepts. For example, when coding important life goals, though possibly implied, I avoided coding "having a car" under "financial security". Due to lack of context, it was unclear whether having a car displays financial security or alternatively refers to concepts such as increasing convenience or being successful in life.

Analysis of Salience

The free lists were analyzed with *AnthroTools*, an R package developed for ethnographic data analysis (Purzycki & Jamieson-Lane, 2017). To investigate what themes are culturally shared and what appears to be idiosyncratic, I calculated the frequency of each theme, percentage of the participants mentioning each theme, and the Smith's Saliency Index (Smith, 1993). Smith's *S* is a weighted mean that accounts for the number of items on participants' lists, placement of the item on their lists, and the frequency with which an item is mentioned (Smith & Borgatti, 1997). Salience scores range from 0 to 1, with values closer to 1 being more salient.

As there was a high correlation, ranging from $r = .96$ to .98, between Smith's *S* scores and percentage of participants mentioning each theme across all subdomains, I decided to use the participant percentage when selecting a cut-off point for saliency of the items. Decisions about cut-off points depend on researchers' interest in how inclusive or exclusive they wish to be

(Bernard, Wutich, & Ryan, 2016) as free listing is just a starting point in exploring cultural models (Weller & Romney, 1988). As recommended by Bernard, Wutich, and Ryan (2016), the cut-off point selected for the themes to be considered salient was any themes mentioned by approximately 10 percent of the participants. By selecting a lower cut-off point, I aimed to ensure that potentially informative concepts were not dismissed.

Results

The primary goal of the present study was to elicit qualitative descriptions of themes associated with the cultural domains of important values and practices as well as EMs of mental illness. The results of the nine subdomains explored is reported here in three sections. The first section elaborates on the themes across important values and practices including life goals and Muslim identity. The second and third sections focus on the domain of mental illness with subdomains of symptoms, causes and consequences of MI being grouped together in the second section. Finally, the third section discusses the themes related to the domain of help-seeking choices including recommendations to cope with MI, people to get support from (professional and non-professional help combined) and characteristics of a therapist.

Themes Across the Domain of Important Values and Practices

Life Goals

A total of 86 items were elicited in the subdomain of life goals. The mean free-list length was 7 (*SD* = 2.07). Table 2, first column, shows 21 themes mentioned by a minimum of approximately 10 percent of the participants as well as related examples of the items listed. The second column shows the number of participants who listed the item, and the third shows the percentage of participants mentioning the item in their list. The fourth column provides the salience score of each item. Items with an asterisk indicate that the theme has also been salient in

the subdomain of Muslim identity. The most salient themes listed were “raising children” and “prioritizing family”, mentioned by approximately 50 percent of the participants. Participants indicated the importance of both *having* children as well as educating or *raising* them according to Islamic and moral teachings. Responsibilities towards family members including taking care of them, fostering emotional bonds, and maintaining healthy relationships were also frequently mentioned. Five other themes were listed by at least 30 percent of the participants: “learning and education”; “preserving and practicing religion”; “working”; “helping others”; and “maintaining good manners and morality”. Participants frequently listed items regarding the need for continuous education (both religious learning and seeking formal education); the importance of ensuring that religious teachings are preserved through daily practices; holding employment or having a career path; the importance of helping those in need; and living a life according to moral values, ethical standards, and manners approved by society or religion.

Overall, there appears to be agreement among participants on what life gaols are most desirable. While I will investigate the semantic relationships among these themes and ways that Arab Muslims categorize these concepts in the second study through a pile sorting activity, the presence of several categories of values is noticeable. Themes in this domain appear to revolve around central values such as family (e.g., “providing for family”), religion (e.g., “preserving and practicing religion”, “having faith in God”), social or other-oriented concepts (e.g., “helping others”, “creating a sense of community”), and personal fulfillments (e.g., “happiness”, “success”, “maintaining health”).

Muslim Identity

A total of 73 items were elicited in the domain of Muslim identity. The mean free-list length was 6.9 (*SD* = 2). Table 3 shows 24 themes mentioned by approximately 10 percent of the

participants as well as related examples of the items listed (if not previously provided withing the subdomain of life goals). “Honesty” was the most salient Muslim characteristic listed by 56 percent of the participants, followed by “maintaining good manners and morality” listed by 46 percent. Five other terms were mentioned by at least 30 percent of the participants including “helping others”; “having faith in God”; “kindness and empathy”; “generosity”; and “preserving and practicing religion”. In addition to emphasizing faith and religion, these themes were also primarily other-focused.

Overall, the participants appear to agree about what it is like to be a Muslim, placing a dual focus on religion and responsibility towards others. In addition to themes related to faith and religion, various aspects of being a good person – particularly those indicating responsibility and care in relation to others – are frequently mentioned. These themes include qualities such as being “honest”, “sincere”, “generous”, “respecting”, “loving”, “kind”, and “cooperative”. Similarly, themes such as “benefiting and contributing to the society” and “helping others” emphasize a Muslim responsibility towards the society more explicitly.

Comparing Subdomains of Life Goals and Muslim Identity

Overall, there appears to be a significant overlap between the concepts elicited in the subdomains of life goals and Muslim identity. The number of terms elicited as well as the number of salient themes emerged were close across two domains; indicating that both domains have a similar level of cohesiveness in participants’ minds. There were eight identical themes that were salient in both subdomains. Themes related to religion, family, responsibility towards others, and personal needs/qualities were present in both subdomains.

Investigating these themes, one might perceive the terms to be abstract or vague. While this perception might be valid for an outsider, discussions with informants from within the Arab

Muslim community, including the RAs, indicated that seemingly vague concepts are frequently talked about in daily life. For example, while "good manners and morality" might seem abstract for a non-Muslim, a Muslim person is highly familiar with these concepts and the translated word used in Arabic (اخلاق) encompasses a Muslim identity to maintain good manners, be a good person, and act according to moral and ethical values in all dealings of life. Another example of a seemingly vague concept is "satisfaction" (رضا). While being a satisfied person in English might seem difficult to be related to one's sense of identity, consultation with cultural insiders indicate that it is, indeed, an important characteristic of a Muslim to be satisfied or content with what God has given him/her/them or with what he/she/they possesses in life.

Themes Across the Domain of Mental Illness

Symptoms of MI

A total of 126 items were elicited in the subdomain of MI symptoms. The mean free-list length was 6.5 (*SD* = 2.3). Table 4 shows 22 themes mentioned by approximately 10 percent of the participants as well as related examples of the items listed. Items with one asterisk were salient across two subdomains of MI (i.e., MI symptoms and consequences) whereas items with two asterisks were salient across all three subdomains of *MI* (i.e., symptoms, causes, and consequences). Sample items are provided where the terms used by participants were different from the theme mentioned.

The most salient theme, mentioned by 52 percent of the participants, is "isolation and distance from people". Participants appeared to agree that seeking solitude and being alone can be symptoms of MI. This theme appears to be closely connected to another salient theme, mentioned by 22 precent of the participants, that emphasized "lack of speech and introversion" as symptoms of MI. Lack of communication with others, silence, and being an introvert were

mentioned by participants as symptoms of MI. In addition to the tendency to talk very little, participants agreed that certain behaviours such as "sleeping too much or too little", "crying", "eating too much or too little", "being violent", "neglecting responsibilities", and "addiction to drugs and alcohol" can be symptoms of MI. Emotions such as "sadness", "anger", and "worry" were mentioned in addition to referring to fluctuations in mood ("mood swings"). "Depression" was mentioned by 15 percent of the sample as a symptom of MI. This appears to be consistent with the common way of using the word depression to refer a low mood in lay North American culture. Salient cognitive symptoms included "negative thinking", "lack of concentration", and "lack of self-confidence", specifically not believing in oneself. "Fatigue" was mentioned as a physical symptom of MI. Interpersonal difficulties with people and family members were among the salient symptoms of MI. Finally, "lack of faith and distance from God" were listed as symptoms of MI.

Causes of MI

A total of 96 items were elicited in the subdomain of causes of MI with an average length of 6.4 (*SD* = 1.7). Table 5 shows 21 themes mentioned by approximately 10 percent of the participants as well as, if not previously indicated, related examples of the items listed.

Salient themes emerged in this subdomain can be categorized across multiple dimensions of causes of MI including situational (e.g., "weather and climate", "bad living conditions", "shocking events"), biological (e.g., "genes", "physical illness"), interpersonal (e.g., "disintegration of family", "problems with dealing with people"), psychological (e.g., "stress", "isolation", "lack of self-confidence"), and spiritual (e.g., "not practicing religion", "lack of faith"). Within this subdomain, it appears that participants agree that a range of contextual elements such as the environment (e.g., "the weather", "poverty", "shocking events") as well as

developmental history (e.g., "childhood problems") and a range of experiences (e.g., "experiencing loss", "difficulties at work", "immigration") can cause MI.

Consequences of MI

A total of 87 items were elicited in the subdomain of consequences of MI with an average length of 5.4 (*SD* = 1.8). Table 6 shows 17 themes mentioned by approximately 10 percent of the participants as well as related examples of the items listed.

The most salient theme, mentioned by 57 percent of the participants, was "isolation and distance from people". Similarly, participants emphasized "lack of speech and introversion", including lack of communication with others, remaining silent, and being an introvert as consequences of MI. Participants agreed that MI can cause interpersonal difficulties in a person's social circles including "difficulties at work and problems with family members such as "problems with one's children". "Addiction to drug and alcohol", and "physical illness" as well as psychological consequences of MI such as "depression", "sadness", "lack of self-confidence", and "not wanting to live" were also among frequently mentioned themes. Finally, "lack of faith and distance from God" was listed by 11 percent of participants as a consequence of MI.

Comparing Subdomains of Symptoms, Causes, and Consequences of MI

As it is indicated by the number of asterisks in Tables 4, 5, and 6, there appears to be a significant overlap between the concepts elicited across the subdomains of mental illness. Mapping how themes emerged in the domain of mental illness relate to themes in the domain of important values and practices can shed light on how Arab Muslims conceptualize MI. With an emphasis on other-oriented values and themes implying responsibility towards one's society and family, it is not surprising to see themes related to "isolation", "lack of communication", and "introversion" to emerge in relation to MI across all the subdomains. Discussions with cultural

insiders, including the Arab or Muslim RAs, revealed that "introversion" within the Arab Muslim culture refers to one's desire to separate oneself from social circles with a negative connotation. In this sense, it is different from what psychologists consider a personality trait with a neutral connotation. Similarly, consistent with an emphasis on values related to one's social circles such as "respecting others", "cooperation", and "creating good relationships with others", it is not surprising for themes related to interpersonal difficulties to emerge in all subdomains of MI. Difficulties with friends, family members, colleagues, and people in general were frequently associated with all subdomains of MI.

Given the centrality of faith in God and the practice of religion within the Arab Muslim culture, themes such as "lack of faith" and "not practicing religion" were associated with symptoms, causes, and consequences of MI. Overall, it appears that participants did not make a clear distinction between symptoms, causes, and consequences of MI. Moreover, nine other themes, such as "physical illness" and "introversion" were present in at least two subdomains of MI. This circular understanding of MI does not seem to be different from other lay conceptualizations of MI. For example, a lay person might think that excessive sadness can cause MI but sadness is also often considered a symptom of depression. Moreover, one can feel sad as a result of having to face the struggles of MI and its treatment.

Despite significant overlap among the subdomains of MI, including an emphasis on a range of biopsychosocial as well as spiritual components, it appears that participants highlighted unique characteristics in each subdomain. In the subdomain of causes of MI, participants uniquely provided a range of contextual elements and experiences such as "poverty", "childhood problems", "experiencing loss", and "immigration", whereas in the subdomain of symptoms of MI, it appears that emotional and cognitive concepts, such as "unstable mood", "worry and

anxiety", "negative thoughts", and "lack of concentration", were more frequently mentioned. Specifically, characteristics of depressive disorders seem to be the prototype of how mental illness can present itself for Arab Muslims. Finally, in the subdomain of consequences of MI, social repercussions such as "being judged by others" and "loss of friends" are uniquely highlighted.

Themes Across the Domain of Help-Seeking Preferences

Recommendations to Cope With MI

A total of 62 items were elicited in the subdomain of recommendations to cope with MI with an average length of 6.4 (*SD* = 2.4). Table 7 shows 24 themes mentioned by approximately 10 percent of the participants. It appears that religious and faith-related recommendations are among the most salient themes. Compared to more general references to faith and religion in previous subdomains, participants listed more descriptive and specific religious practices that can help one with mental illness in the present subdomain. These themes include, "praying", "strengthening faith", "invocation (دعاء)", and "reading the Quran" mentioned by 50, 45, 39, and 37 precent of participants respectively. Participants seemed to agree that focusing on seeking closeness to God, trusting God, asking for help from God through daily prayers and invocations, as well as practicing important aspects of religion can be used as coping strategies for a person struggling with MI.

Following religious recommendations, seeing a psychologist is mentioned by 37 precent of participants. Recommendations to seek other types of professional help including themes related to seeing a "medical doctor", "mental health specialist", and "psychiatrist" were mentioned by 17, 13, and 9 percent of participants, respectively. People often referred to a "mental health specialist" as someone who has expertise in treating mental illness or someone

who knows the symptoms of mental illness. As such, although coded separately, it can be assumed that a "mental health specialist" can include a range of professionals such as psychiatrist and psychologists. Upon consulting with Arabic-speaking cultural insiders, it appears that the Arabic word for a psychiatrist can be used interchangeably with a psychologist as lay people might not make a clear distinction between these two professions. In general, if the Arabic equivalent of the term "doctor of self/psyche" (i.e., طبيب نفسي) is used, people are more likely to be referring to a psychiatrist whereas the Arabic equivalent of the term "someone who treats self/psyche" (i.e., عالج نفسي) refers to a psychologist or a psychotherapist. Despite the interchangeable use of these terms and the difficulties in coding them, it appears that seeking a range of professional help is among the highly salient themes in what Arab Muslims would recommend to a person with MI. Although preliminary, this finding seems to contradict previous findings on this population indicating a lack of consideration for obtaining professional help when facing MI (e.g., Al-Krenawi, Graham, & Kanduh, 2000; Aloud & Rathur, 2009).

In addition to professional help and faith-oriented recommendations, themes related to seeking social support such as "asking for help", "talking to someone close", "talking to family members" and "avoiding isolation" are frequently mentioned by participants. Participants also agreed that a range of personal activities such as "finding a hobby", "engaging in physical activity", "travelling", and "relaxation" can help a person with MI. Overall, as evident from the salient themes that emerged in this subdomain, participants appear to concur that a range of spiritual, professional, social, and personal coping strategies can be helpful when experiencing a mental illness.

People to Get support From

A total of 70 items were elicited in the subdomain of people to get support from with an average length of 6.1 (*SD* = 2.7). Table 8 shows 13 themes mentioned by approximately 10 percent of the participants. There was a high level of agreement among participants that people who provide professional help can be sought out when facing MI. "Psychologists" were recommended by 80 percent of the participants followed by "psychiatrists", "medical professionals", "mental health specialists", "social workers" and "life coaches" mentioned by 39, 39, 33, 30, and 19 percent of the participants respectively. The findings suggest the presence of a consensus among participants on the prototype of a person that one might get support from when facing MI.

In addition to professional help, participants frequently referred to people in one's social circles as potential sources of support. These people included "family members", "friends", and "a wise person". Moreover, "religious leaders" such as imams, and people in the "Muslim community" were frequently mentioned as sources of social support. Despite the question asking participants to list *people* or *professionals* that a person with MI can seek support from, "God" was mentioned by 13 percent of participants as a source of support in this subdomain.

It is noteworthy to mention that of the 70 emerged themes in this subdomain, 15 were specific names of popular life coaches, therapists, and YouTubers who discuss mental health or well-being related topics. These popular figures were both from the Arab Muslim community (e.g., Mostafa Husni) or the Western community (e.g., Tony Robins). This pattern, along with agreements found in the domain of EMs of MI, further confirms our initial observation that constructs related to mental illness are indeed part of the daily narratives of the Arab Muslim community, and that terms related to mental health, mental illness, and treatment choices are not unfamiliar to the community.

Characteristics of a Therapist

A total of 64 items were elicited in the subdomain of characteristics of a therapist with an average length of 4.9 (*SD* = 2.07). Table 9 shows 17 themes mentioned by approximately 10 percent of the participants. In this subdomain, 52 percent of participants agreed that a desired characteristic in a therapist would be being "religious" or "committed to Islamic teachings". Similarly, 20 percent of participants mentioned the importance of "having faith in God" as well as another 13 percent emphasizing "being able to provide religious advice" and recommendations that are aligned with Islamic teachings. In addition, 19 percent of participants mentioned preferences for a therapist to be an Arab or from the "same cultural background" as them.

Other highly salient themes in this subdomain included desirable interpersonal qualities of a therapist and personality traits such as being "attentive", "understanding", "non-judgmental", "patient", and "kind "mentioned by 49, 33, 31, 20, 15 percent of participants, respectively. In addition, 37 percent of participants appeared to agree that a therapist's "credentials" are important, which was followed by themes referring to a therapist's "knowledge", and "competence". Participants mentioned that having the right training, degree, and professional qualifications, as well as possessing the relevant knowledge about mental illness and the ability to effectively instill change are important qualities for a therapist to hold.

In addition to the salient themes mentioned, approximately 20 percent of participants stated idiosyncratic, but conceptually relevant characteristic of a therapist. These terms, although not individually salient, included themes related to cultural safety and a non-judgmental stance of a therapist such as "not discriminating", "cultural understanding", "unbiased", "not racist", and

"accepting". Overall, it appears that participants agreed on a range of religious, cultural, professional, interpersonal, and personal qualities that would make a therapist trustworthy.

Comparing Subdomains of Recommendations to Cope with MI, People to Get Support From, and Characteristics of a Therapist

Overall, it appears that there is a strong conceptual link between the subdomains of help-seeking preferences with each subdomain providing more nuanced clues for what seeking help might look like for an Arab Muslim. Similar to the domain of EMs, themes generated in the domain of help-seeking preferences can be better understood when contextualized within previously discussed domains of important values and practice and mental illness. Given the saliency of belief in God and the practice of religion in all aspects of life, as well as endorsement of spiritual causes of MI by Arab Muslims, it is expected to see a strong preference for recommendations that suggest looking to religion for healing and coping with MI. However, biopsychosocial causes contributing to MI and willingness to seek professional help were also highly emphasized by participants. Although it is apparent that a strong preference exists for seeking professional help, the themes that emerged in the subdomain of characteristics of a therapist shed preliminary light on why Arab Muslims may not be using services offered by Western institutions and professionals. Participants in this study demonstrated agreement on the desirability of a therapist or healer who is religious, familiar with Islam, and capable of providing recommendations that are in line with Islamic traditions; qualities that are not often endorsed by Western professionals. In addition, themes reflecting concerns about the therapist being "judgmental", "not understanding of cultural values", discriminatory", and "racist" provide further clues about possible barriers faced by Arab Muslims when considering treatment choices.

Consistent with themes emphasizing other-oriented and social values and with frequent attribution of mental illness to concepts such as “isolation” and interpersonal difficulties, recommendations to avoid solitude and seek help from one’s family, friends, and community appear to be salient in the domain of help-seeking preferences. Finally, values emphasizing personal needs, such as striving to create “psychological peace” and “happiness” for oneself, seem to inform the presence of replenishing self-care recommendations such as “relaxation”, “finding hobbies”, and “engaging in physical activity”.

Table 1. Sample characteristics of participants in the free-listing study ($N = 54$).

Characteristics	*M* (*SD*) Or *n* (%)
Age in years	38.43 (9.99)
Female	40 (74)
Citizenship status	
Canadian citizen	38 (70.37)
Permanent resident	12 (22.22)
Refugee status	1 (1.85)
International student	2 (3.7)
Other	1 (1.85)
Years in Canada	11.93 (9.15)
Country of birth	
Algeria	8 (14.81)
Egypt	8 (14.81)
Canada	5 (9.25)
Morocco	4 (7.4)
Lebanon	4 (7.4)
France	2 (3.7)
Saudi Arabia	1 (1.85)
United Arab Emirates	1 (1.85)
Libya	1 (1.85)
Syria	1 (1.85)
Not indicated	19 (35.18)
Most proficient language	
Arabic	36 (66.66)
English	4 (7.4)
French	14 (25.92)
Second proficient language	
Arabic	12 (22.22)
English	22 (40.74)
French	20 (37)
Third proficient language	
Arabic	5 (9.25)
English	20 (37)
French	14 (25.92)
Other languages or no third language	15 (27.77)
Relationship status	
Single	8 (14.81)
In a relationship/engaged	2 (3.7)
Married/cohabiting	40 (74)
Divorced/separated	2 (3.7)
Widow/widower	1 (1.85)
Not indicated	1 (1.85)

Employment status	
Employed	31 (57.4)
Unemployed	22 (40.74)
Not indicated	1 (1.85)
Level of education completed	
High school	8 (14.81)
Pre-university college/CEGEP	6 (11.11)
Undergraduate	23 (42.59)
Graduate/post-graduate studies	17 (31.48)
Annual household income (Canadian dollars)	
Less than $25,000	13 (24)
$25,001 to $50,000	15 (27.77)
$50,001 to $70,000	11 (20.37)
$75,001 to $100,000	9 (16.66)
More than $100,000	3 (5.55)
Not indicated	3 (5.55)

Table 2. Most frequently listed themes in the subdomain of life goals.

Theme	*n*	%	Salience
1. Raising children (e.g., having children, raising children according to religious teachings, good kids)	28	52	0.32
2. Maintaining good relationships in family (e.g., maintaining good relationships with family members, foster emotional bonds with family)	26	48	0.32
3. Learning and education* (e.g., learning new knowledge)	22	41	0.31
4. Preserving and practicing religion* (e.g., protecting religion, practice religion daily)	22	41	0.24
5. Working (e.g., employment, career)	19	35	0.22
6. Maintaining good manners and morality* (e.g., acting according to moral or ethical values)	19	35	0.23
7. Helping others* (e.g., helping those in need)	18	33	0.14
8. Maintaining health (e.g., protecting health, good health, be healthy)	14	26	0.13
9. Pleasing God (e.g., having the intention to please God in everything you do)	13	24	0.19
10. Achieving success (e.g., being successful, having achievements)	12	22	0.14
11. Financial security (e.g., financial stability)	12	22	0.11
12. Having faith in God* (e.g., believing in God, remembering God in all endeavours, seeking closeness to God)	11	20	0.14
13. Being Happy (e.g., happiness)	10	19	0.13
14. Creating stability (e.g., creating security)	9	17	0.11
15. Providing for family* (e.g., proving financial security for family, protecting one's family)	8	15	0.09
16. Benefiting and contributing to society* (e.g., giving back to the society)	8	15	0.07
17. Maintaining or creating a sense of community (e.g., responsibility towards community, supporting people in the community)	7	13	0.07
18. Caring for and obeying parents (e.g., taking care of parents when they get old, listening to parents)	7	13	0.07
19. Being honest* (e.g., noy lying)	6	11	0.08
20. Creating good relationship with others (e.g., living in harmony with others)	5	9	0.04
21. Loving others* (e.g., spread love)	5	9	0.03

Note. * indicates that the theme has also been salient in the subdomain of Muslim identity.

Table 3. Most frequently listed themes in the subdomain of Muslim identity.

Theme	*n*	%	Salience
1. Honesty*	30	56	0.45
2. Maintaining good manners and morality*	29	53	0.37
3. Helping others*	23	43	0.22
4. Having faith in God*	23	43	0.31
5. Kindness and empathy (e.g., being kind to others)	19	35	0.21
6. Generosity (e.g., sharing what you have with others)	19	35	0.18
7. Preserving and practicing religion*	17	31	0.13
8. Trustworthiness (e.g., not cheating)	15	28	0.18
9. Patience	12	22	0.12
10. Loving others*	12	22	0.11
11. Respecting others	11	20	0.12
12. Praying (e.g., praying five times a day)	10	19	0.13
13. Psychological peace (e.g., having tranquility)	8	15	0.07
14. Satisfaction (e.g., gratefulness, being happy with what God has given you)	7	13	0.09
15. Sincerity	7	13	0.08
16. Modesty (e.g., chastity, humility)	7	13	0.07
17. Tolerance and forgiving (e.g., tolerating values that are different from yours, being forging towards others that are different)	7	13	0.06
18. Benefiting and contributing to society*	7	13	0.04
19. Being a good example (e.g., modeling good behaviour to others)	6	11	0.07
20. Cooperating with others (e.g., being a team)	6	11	0.05
21. Perseverance (e.g., not giving up, being a hard worker)	6	11	0.05
22. Providing for family*	6	11	0.07
23. Learning and education*	5	9	0.06
24. Hygiene (e.g., being clean)	5	9	0.06

Note. * indicates that the theme has also been salient in the subdomain of life goals.

Table 4. Most frequently listed themes in the subdomain of symptoms of mental illness.

Theme	*n*	%	Salience
1. Isolation and distance from people** (e.g., distancing self from others, feeling alone, staying away from people, seeking solitude)	28	52	0.37
2. Sleeping a little or sleeping a lot (e.g., insomnia, too much sleep)	19	35	0.19
3. Sadness* (e.g., upset)	18	33	0.18
4. Eating a little or eating a lot (e.g., high appetite, low appetite)	14	25	0.13
5. Worry and anxiety (e.g., nervousness, being anxious, worrying a lot)	13	24	0.17
6. Lack of speech and introversion* (e.g., Not communicating, remaining silent, introversion)	12	22	0.16
7. Lack of self-confidence** (e.g., not believing in oneself, feeling bad about self, low self-esteem)	11	20	0.09
8. Violence* (e.g., being violent, being aggressive, assaulting others)	10	19	0.08
9. Negative thoughts (e.g., dark thoughts, not thinking positively)	10	19	0.07
10. Depression*	8	15	0.13
11. Addiction to drugs or alcohol** (e.g., being addicted to drugs)	8	15	0.05
12. Crying (e.g., crying for no reason)	7	13	0.09
13. Unstable mood (e.g., mood swings)	7	13	0.09
14. Anger	7	13	0.07
15. Problems with dealing with people**	7	12	0.09
16. Stress* (e.g., daily stress, tension)	6	11	0.09
17. Disintegration of family and divorce**	6	11	0.09
18. Lack of energy or fatigue	6	11	0.08
19. Suicide or not wanting to live*	6	11	0.06
20. Lack of faith or distance from God**	5	9	0.07
21. Lack of concentration (e.g., inability to focus, confused thinking)	5	9	0.07
22. Neglecting responsibilities (e.g., neglect daily work)	5	9	0.05

Note. * indicates that the theme has also been salient in one other subdomain of mental illness, ** indicates that the theme has also been salient in all subdomains of mental illness.

Table 5. Most frequently listed themes in the subdomain of causes of mental illness.

Theme	*n*	%	Salience
1. Stress*	21	39	0.30
2. Disintegration of family and divorce**	21	39	0.23
3. Isolation and distance from people**	16	30	0.19
4. Poverty (e.g., unable to make a living, becoming poor)	15	28	0.17
5. Shocking events (e.g., traumatic events, sudden changes, events such as war or torture)	14	26	0.14
6. Difficulties at work or unemployment*	12	22	0.17
7. Genes (e.g., genetics, heredity problems)	12	22	0.17
8. Lack of faith or distance from God**	11	20	0.16
9. Childhood problems	11	20	0.15
10. Experiencing abuse or cruelty (e.g., being abused, being assaulted)	11	20	0.11
11. Physical illness* (e.g., illness, prolonged sickness)	11	20	0.11
12. Loss (e.g., losing someone you love, losing an important person)	11	20	0.10
13. Not practicing religion (e.g., not following religious teachings, being away from religion)	10	19	0.09
14. Being away from family (e.g., family living far)	10	19	0.07
15. Bad living conditions (e.g., living in a bad environment, harmful environment, bad circumstances)	9	17	0.10
16. Problems with dealing with people** (e.g., not getting along with people, getting into fights with people)	8	15	0.10
17. Addiction to drugs or alcohol**	8	15	0.06
18. Immigration	7	13	0.06
19. Bad influence (e.g., influence from bad friends, bad influence from what you watch or listen to)	7	13	0.05
20. Weather and climate	5	9	0.06
21. Lack of self-confidence**	5	9	0.05

Note. * indicates that the theme has also been salient in one other subdomain of mental illness, ** indicates that the theme has also been salient in all subdomains of mental illness.

Table 6. Most frequently listed themes in the subdomain of consequences of mental illness.

Theme	*n*	%	Salience
1. Isolation and distance from people**	31	57	0.45
2. Difficulties at work or unemployment* (e.g., loss of job, professional problems)	22	41	0.25
3. Disintegration of family and divorce** (e.g., marital problems, problems with wife or husband, family falling apart)	20	37	0.25
4. Suicide or not wanting to live*	18	33	0.18
5. Not being accepted by others or being judged (e.g., being hated or disregarded by others, being rejected by others, being judged for who you are)	15	28	0.18
6. Physical illness*	12	22	0.11
7. Lack of self-confidence**	11	20	0.10
8. Problems with dealing with people**	10	19	0.11
9. Failure (e.g., failing, not making progress in life)	8	15	0.10
10. Depression*	7	13	0.12
11. Violence*	7	13	0.04
12. Problems with once's children (e.g., lack of patience for children)	6	11	0.08
13. Sadness*	6	11	0.07
14. Addiction to drugs or alcohol**	6	11	0.06
15. Lack of speech and introversion*	6	11	0.06
16. Lack of faith or distance from God** (e.g., weakness in faith, not fearing God)	6	11	0.05
17. Loss of friends	5	9	0.05

Note. * indicates that the theme has also been salient in one other subdomain of mental illness, ** indicates that the theme has also been salient in all subdomains of mental illness.

Table 7. Most frequently listed themes in the subdomain of recommendations to cope with mental illness.

Theme	*n*	%	Salience
1. Praying (e.g., pray at night, adherence to daily prayers)	27	50	0.32
2. Seeking closeness to God and strengthening faith (e.g., trust God, hold on to God, focus on your faith)	24	45	0.30
3. Invocation	21	39	0.25
4. Reading Quran (e.g., contemplate on Quran)	20	37	0.31
5. Seeing a psychologist	20	37	0.24
6. Reaching out to friends (e.g., hang out with friends, talk to a friend)	20	37	0.14
7. Engaging in physical activity (e.g., sports)	18	33	0.18
8. Talking to someone close (e.g., share your problems with someone trustworthy)	14	26	0.12
9. Seeking social support	11	20	0.13
10. Seeing a medical doctor (e.g., seeing your GP, talk to family doctor)	9	17	0.10
11. Asking for help (e.g., ask others to help you)	8	15	0.07
12. Relaxation (e.g., deep breathing to relax you)	8	15	0.07
13. Travelling	8	15	0.06
14. Seeing a mental health specialist (e.g., see someone with expertise in mental illness)	7	13	0.12
15. Avoiding isolation	7	13	0.09
16. Talking to family members	7	13	0.07
17. Finding a hobby (e.g., entertain yourself with an activity)	7	13	0.06
18. Helping others (e.g., do volunteering, charity)	7	13	0.04
19. Practice optimism or being positive (e.g., positive outlook)	6	11	0.08
20. Working on yourself (e.g., reflecting on thoughts, trying to improve yourself)	6	11	0.06
21. Attending religious workshops (e.g., attend Islamic lectures)	6	11	0.05
22. Seeing a psychiatrist	5	9	0.07
23. Going to the mosque	5	9	0.05
24. Practicing religion (e.g., adherence to religious teachings, return to Sunnah)	5	9	0.05

Table 8. Most frequently listed themes in the subdomain of people to get support from.

Theme	*n*	%	Salience
1. Psychologist	43	80	0.56
2. Friend	33	61	0.39
3. Family member	33	61	0.39
4. Religious leaders (e.g., imam, sheikh)	31	57	0.37
5. Psychiatrist	21	39	0.20
6. Medical professionals (e.g., doctor, physician, nurse, neurologist)	21	39	0.18
7. Social worker	18	33	0.15
8. Mental health specialist	16	30	0.23
9. Life coach	10	19	0.09
10. A wise person	8	15	0.07
11. God	7	13	0.11
12. Muslim community (e.g., Muslim associations, Islamic seminars)	7	13	0.05
13. Therapist	6	11	0.03

Table 9. Most frequently listed themes in the subdomain of characteristics of a therapist.

Theme	*n*	%	Salience
1. Religious (e.g., a Muslim, committed to Islam, practices religion)	28	52	0.39
2. Attentive (e.g., pays attention, present, not distracted)	26	49	0.33
3. Credentials (e.g., someone who has studied psychology, someone who is qualified, trained in mental health)	20	37	0.20
4. Understanding	18	33	0.20
5. Non-judgmental (e.g., neutral, does not attack your beliefs)	17	31	0.14
6. Having faith in God (e.g., belief in Allah)	11	20	0.13
7. Patient	11	20	0.10
8. Same cultural background (e.g., of the same culture)	10	19	0.13
9. Competent (e.g., can make you feel better, effective)	9	17	0.08
10. Optimistic (e.g., positive)	9	17	0.06
11. Respects confidentiality	8	15	0.12
12. Kind	8	15	0.08
13. Trustworthy	7	13	0.09
14. Calm	7	13	0.09
15. Being able to provide religious advice (e.g., can provide advice consistent with Islamic teachings)	7	13	0.06
16. Honest	6	11	0.07
17. Knowledgeable (e.g., knows about symptoms of mental illness, knows how to treat)	5	9	0.06

CHAPTER 3

The Organization of The Cultural Domains

In the free listing study, I sampled the elements of three cultural domains: important values and practices, mental illness, and help-seeking preferences. The next step is to investigate how cultural domains are cognitively organized for Arab Muslims. Elements of a domain can be associated in various ways, including semantically (e.g., psychologists and social workers are both professionals), functionally (e.g., demonstrating your faith requires you to practice it daily), sequentially (e.g., you need to get married before having a child), and causally (e.g., losing your job causes mental illness; Dressler, 2018). Originally developed by anthropologists, pile sorting is a powerful technique that can be used to explore the relations between the concepts that have emerged from the free listing study (Trotter & Potter, 1993). By asking participants to group items that are perceived to go together, researchers can investigate similarities and differences between the items; how items are categorized into groups and distinguished from other items; and the underlying structure and dimensions along which the elements of the domain are organized (Borgatti,1999). Instead of asking participants to explain concepts in an abstract way, pile sorting affords participants the opportunity to reveal their thinking indirectly through their grouping decisions (Dressler, 2018). As such, along with the exploratory free listing, pile sorting can be an excellent way to generate research questions and hypotheses about features of a cultural domain (Dengah et al., 2020). This methodology is also consistent with an emic approach to research because it allows the relationships between concepts to emerge from the participants' responses instead of relying on researchers to make sense of the findings, thereby minimizing researchers' bias in analysis (Dressler & Oths, 2014).

In addition to being a quantitative methodology, pile sorting can be used as an interviewing technique (Dengah et al., 2020; Dressler, 2018). As participants group items together, they can be asked to explain the logic behind their decisions and invited to elaborate on the relationship they perceive among items piled together. In this way, conversations during pile sorting can be transcribed and analyzed qualitatively. As Guba and Lincoln (1994) have noted, qualitative studies can significantly enrich quantitative findings by providing a contextual understanding of the phenomena being studied. Specifically, qualitative research can serve several important purposes, including allowing researchers to study the underlying meanings behind what people do or say; facilitating the reconciliation of local perspectives with differing researchers' perspectives; and leaving room for unexpected discoveries (Braun & Clarke, 2013; Guba & Lincoln, 1994).

In addition to its mixed-method nature, pile sorting can allow researchers to investigate not only what is culturally shared, but also what is contested. Due to its ability to provide both the organization of a cultural domain and the meaning behind this organization, as well as its strength in engaging participants in the task (Dressler, 2018), pile sorting has been commonly used by anthropologists to obtain a more comprehensive understanding of cultural models (e.g., Andrews, Dressler, & Oths, 2020; Sayles et al., 2007). In a study by Henderson and Dressler (2017), for example, the authors examined cultural models of addiction and its attributed stigma among university students. After sampling the elements that can increase the likelihood of dependence on drugs and alcohol, the authors investigated how these elements are organized and linked together. The results of the pile sorting suggested five clusters related to cultural models of addiction, including biological (e.g., genetics), self-medication (referring to one's attempt to cope with difficult experiences), familial (e.g., childhood exposure to drugs), social (e.g., peer

pressure, social media), and hedonistic factors (referring to seeking pleasure and fun in using drugs and alcohol). These clusters along with participants' explanation of their groupings allowed the authors to generate hypotheses about possible relationship between different clusters and their attributed stigma. In their follow-up investigations, the authors found that compared to participants who endorsed a medical model of addiction – one that focuses on biological, familial, and self-medication factors – participants who adhered to a moral model of addiction – one that focuses on social and hedonistic factors – were more likely to stigmatize people with substance dependency. From this stigmatizing perspective, addiction is framed as something within one's control, and is perceived as an indication of human weakness and an inability to resist social pressures.

In the present study, I used pile sorting to map the cognitive space of the cultural domains of important values and practices, mental illness, and help-seeking preferences. Through three pile sorting activities, I explored the relationships among each domain's elements. The three main exploratory research questions in this chapter are: 1) How do Arab Muslims organize culturally salient elements of the three domains? 2) What are the attributes that they use when distinguishing among the elements of each domain? And 3) What is shared and what is contested in Arab Muslims' thinking in each domain?

Method

Participants

A sample of forty participants was recruited in this study. Table 10 shows the demographic characteristics of the participants. Participants greatly varied in terms of the length of residence in Canada, ranging from 3 months to 37 years and 9 months, with an average length of 12.53 years (SD = 9.98). Participants varied in terms of country of birth as well as previously

taking up residence in a range of Arab and non-Arab countries. In addition, participants reported various ranges of annual household income (ranging from less than $25,000 to more than $100,000 CAD) and education level (ranging from a high school diploma to a graduate degree). The majority of participants (80 percent) identified as female.

Recruitment

The study was conducted between November 2019 to February 2020 after receiving approval from the Concordia University Human Research Ethics Committee. The recruitment strategy for the present study remained similar to the free listing study (please refer to the *Recruitment* section of the previous study for details).

Procedure

Participants were informed that the study involved a pile sorting activity and that in-person participation was required. Similar to the procedure used in the free listing study, I continued to facilitate participation in locations that were most convenient for the participants. Unless participants were fluent in English, a trained Arabic-speaking research assistant accompanied me in all research meetings to facilitate communications. I was present during all stages of data gathering. Participants took between 50 to 80 minutes to complete the study and were paid $20 for their time.

As noted in the previous study, I observed that participants continued to have questions, beyond what was indicated in the consent form, about the 'intention' behind the study. Participant questions or comments, often asked at the end of the interview process, were informally noted and used to inform data analysis.

Measures

Demographic Information

Participants completed a brief questionnaire screening for inclusion criteria and inquiring information regarding their age, gender, relationship status, education level, employment, household income, language, place of birth, citizenship status, and length of residence in Canada.

Sorting Activities

Each participant completed sorting activities in the three domains of important values and practices, mental illness, and help-seeking preferences. In all sorting activities, participants were given a stack of notecards with each including a salient term that was selected from the previous free listing analysis. In the domain of important values and practices, participants were first asked to rank-order 35 notecards in terms of their relative importance. After their responses were recorded, participants were instructed to categorize the notecards (i.e., put the notecards into piles) according to the similarities they perceived among the items, with the only rule being that they were required to make, at least, two piles. In addition, participants were invited to "think out loud" while putting the notecards in order or when making their piles. Participants were also asked to provide a label or a short description for each pile they made. These narratives were audio-recorded and later transcribed for qualitative analysis. The same pile sorting procedure was used in the domains of mental illness and help-seeking preferences.

Recall that the free listing study included asking participants to list items for each subdomain identified within the three domains of interest. In the domain of help-seeking preferences, it made natural sense to combine the subdomains into the large domain of *what you do when you need help with mental illness.* In addition, the salient items listed in the other two domains' subdomains were also merged for the following reasons. First, there was a considerable overlap in salient items in the subdomains of both important values and practices and mental illness. For example, there was a significant overlap between the items mentioned across the

subdomains of symptoms, causes, and consequences of MI. Second, I wished to limit the burden of pile sorting tasks for participants by reducing them to three activities. The following is the instruction provided for each pile sorting activity.

Domain of important values and practices: "*This stack of 35 notecards contains words that people in your community often associate with the most important things in life. Please put these cards in as many piles as you wish."*

Domain of mental illness: "*This stack of 44 notecards contains words that people in your community often associate with mental illness and when things go wrong in one's life. Please put these cards in as many piles as you wish.*"

Domain of help-seeking preferences: "*This stack of 28 notecards contains words that people in your community would often recommend to someone with mental illness to feel better. Please put these cards in as many piles as you wish.*"

Items included in the sorting activities were the salient items mentioned by approximately 10 percent of participants in the free listing study. In addition to the salient ones, some items that did not reach the saliency cut-off point in each subdomain, but were mentioned across multiple subdomains, were added to the stack of notecards. Meanwhile, a single item was used to refer to items that were semantically close to each other, such as using "honesty" to include concepts such as "sincerity" and "trustworthiness". Moreover, some items such as "suicide", although salient, were excluded from the pile sorting study due to their potential to trigger psychological distress. Decisions about what terms to merge, include, or exclude were made through discussion with culturally informed RAs, until consensus was achieved.

Translation

Translation of the Study Material

The notecards used for the sorting activities had both the English and Arabic version of the words and phrases written on them. Participants were offered the choice to complete the study in English or Arabic. A similar collaborative, team-based, iterative approach, described in chapter 2, was used for translation of the study material (Douglas & Craig, 2007; Harkness, 2003; Harkness & Schoua-Glusberg, 1998).

Data Translation

The quantitative data in this study did not require translation as it only involved numeric responses. Out of forty participants, only two described their piles in Arabic. Arabic narratives were translated into English before analysis. One participant refused audio-recording.

Data Analysis

Pile Sorting Analysis

A proximity matrix was created for each participant in which a 1 was placed in cells linking each pair of items that were piled together, while a 0 was placed in cells linking each pair of items that were not piled together. Upon adding the proximity matrixes for all forty participants, an aggregate proximity matrix was created with each cell showing the percentage of times that the two items were piled together (Borgatti, 1999). I then conducted non-metric multidimensional scaling (MDS) on the aggregate proximity matrix using the *Vegan* package in R (Dixon, 2003; Oksanen et al., 2019) to map out the organization of the three domains of interest. MDS reduces the aggregate proximity matrix to a two-dimensional representation of distances between the items. Items that are more frequently piled together will be represented closer together while items that are less frequently grouped together will have greater distance between them (Hout, Papesh, & Goldinger, 2013). MDS also produces a stress value that indicates the fit between the original and transformed (i.e., two-dimensional) distances. Smaller

stress values indicate that the two-dimensional scaling adequately represents the original data (Sturrock & Rocha, 2000).

Given that it requires a somewhat subjective approach to interpret the MDS configurations (Borg et al., 2012), it is common practice to perform cluster analysis of the MDS to facilitate identifying the boundaries between groups of items (Leonard & Ashley, 2012). Here, I applied hierarchical cluster analysis using the *Cluster* package in R (Maechler et al., 2013) to examine how Arab Muslims tend to cluster items together. Moreover, given the lack of agreement on how to decide on the optimal number of groups in cluster analysis (Everitt et al., 2011), my approach involved combining quantitative and qualitative indicators. Specifically, I used scree plots and dendrograms to identify potential clusters and validated my clustering decisions with participants' narratives.

Qualitative Analysis

Qualitative Analysis Approach. I used *Thematic Analysis* (TA), as developed by Braun and Clarke (2006), to analyze the interviews. TA is a systematic method for identifying "patterns of meaning" (i.e., themes) within a data set to gain insights into collective or shared experiences (Braun & Clarke, 2012, p. 57). As outlined by Braun and Clarke (2006, 2013), TA has several advantages that makes it suitable for this study. First, unlike other qualitative analysis approaches that require intensive training and advanced skills, TA is a simple method that can be easily learned by researchers with varying levels of experience. As a novice researcher in the field of qualitative research, I found TA to be a suitable approach for this study due to its relatively straightforward nature. Second, TA is a flexible qualitative analytic method that does not require reliance on any specific methods of data collection, theoretical frameworks, or epistemological stance. It only offers a method for data analysis, which allows for a bottom-up or

top-down approach to identifying themes in the data. This flexibility makes it suitable for analyzing my data that involved exploration of specific items (i.e., the items on the notecards) as well as the relations between these items. Third, despite its flexibility and straightforwardness, TA is a systematic approach to data analysis with clear steps for coding. This quality allowed me to analyse the data in a rigorous and credible way. Finally, TA can be a useful method to provide a nuanced understanding of the data, highlight area of agreement and disagreement, and uncover unanticipated insights. These advantages align well with the goals of my study which included 'unpacking' culture, identifying intracultural variations, and taking on an exploratory emic approach in research.

Coding. The transcripts were coded using NVivo13 qualitative data analysis software. I followed Braun and Clarke's (2006, 2012) six phases of qualitative data analysis. The first phase involved familiarization with data, including listening to the audio recordings, reading the transcripts multiple times, and taking notes on possible interesting findings. The second phase focused on systematically coding data. Coding was done iteratively with some codes being more descriptive and some others being more interpretive. In the third phase, I investigated the codes for patterned responses to generate themes. Themes were mainly created based on my research questions and were grouped together according to the three cultural domains of interest. Themes were then used to create an overall story of shared experiences within each domain. The fourth phase involved a recursive process of reviewing the themes in relation to the entire data set to confirm lack of overlap between the themes and ensure that the themes can be supported by sufficient participants' quotes. This step was helpful in determining not only the shared but also contested themes across the data set. I then defined and named themes in the fifth step, followed by producing a report that meaningfully connected the identified themes in the final phase. As it

is the case in most qualitative studies, the creation of a final comprehensive narrative involved continuous oscillation between micro- and macro-levels of analysis (i.e., the data set and the overall story).

Methodological Integrity. To ensure the methodological integrity and trustworthiness of our analysis, I implemented a range of approaches recommended by the American Psychological Association for qualitative studies (Levitt et al., 2018) as well as Lincoln and Guba's suggestions on strategies to increase credibility, transferability, and dependability of the results (1985, 1986). I took steps to enhance the credibility of the findings by engaging in prolonged engagement with both the data and participants. Additionally, I had formal and informal discussions with cultural insiders on the research team to further verify and receive feedback on the findings. I also used triangulation of the qualitative and quantitative findings across the three studies to further bolster the credibility of the results. To ensure that the themes were grounded in evidence, I frequently used participants' quotes, which were presented as closely as possible to the participants' original words. I removed filler words such as "like", "so", and "you know" to increase the fluency of the quoted text. In cases where participants were not native English speakers or the quotes appeared choppy, I added phrases to the quotes to improve their comprehensibility. These additional words or phrases were clearly marked with square brackets. Each participant was represented using a pseudonym.

To determine the transferability of the findings, I provided a detailed description of participants' demographic characteristics and the cultural context from which the sample was drawn in Chapters 1 and 2. I also sought to enhance the dependability of the research by outlining the methods used and the rationale behind the research decisions throughout this chapter.

Results

Rank Ordering of the Important Values and Practices

The rank ordering of the items within the domain of important values and practices helps to understand not just what values are important, but also how much they matter to participants (Dengah, 2014). As the items were selected based on saliency and were therefore emically important, participants reported difficulty ranking items because *all* items seemed fundamental to them. Table 11 shows the average ranking for each item. Items with lower average ranking indicate that participants listed those items earlier in their list, signifying higher saliency compared to items with higher average rankings. As shown in Table 11, "faith in God and pleasing God" had the lowest average ranking, followed by important religious practices such as, "praying" and "reading the Quran". "Caring for parents" was also ranked as highly important, followed by discussions around the importance of being moral and possessing good manners. In general, participants' narratives centred around discussing the values they deemed most and least important. Ahsan (male, 24), for example, explained his rank ordering this way:

> For me, everything starts from faith in Allah. And our main duty here on the Earth is to please Allah…not to go to heaven but because we love him. And then, from my point of view, treating your parents in a good manner is extremely important. It's one of my priorities…And treating people in a good manner and with morality is important as well because Islam is more about treating people, not how to treat yourself. And then I believe that praying is extremely important because if you are praying, most probably everything else will be okay. It helps you…and praying, preserving and practicing religion, reading Quran, memorizing it…these worshiping acts are important as well. And then I think your role towards society comes… you have to be a good role model. I have

> to benefit society, be active, help others. And you have to be modest as well…[being modest] is more important than having education or being in a good university or having money. And you have to maintain good health because your body has some rights that you have to fulfill.

Themes Related to the Rank Ordering of The Important Values and Practices

Three broad themes were identified in participants' descriptions of their rank ordering of the important values and practices: *Centrality of faith and religion*, *well-being as a result of faith in God*, and *inherent versus secondary importance of values*. Each theme is discussed below.

Centrality of Faith and Religion

A strong theme identified was the *centrality of faith and religion*; all participants described their faith in God as a foundational value around which other values are organized. Participants referred to "faith in God" as the "first pillar" of Islam and the reason for practicing the religion. One participant, for example, said "the thing that's most important to me is to have faith in God and everything afterwards is secondary". Wajd (female, 21) described the centrality of her faith in her day-to-day life:

> If I could summarize my whole life, I would say you have God in the center, and if I say that, it means that whatever he would command me, it goes at the basis of everything I do. My lifestyle is based on God's command in a way. If you ask me what I am going to do today, it would be planned based on my prayer times…that's just one example.

Participants described faith in God as "a key to everything in life", one that serves as "a basis for everything", providing them with "a sense of purpose". Participants agreed that Muslims "believe in the existence of God", "trust his will", and "aim to improve their relationship with

God". A relationship with God was often mentioned as a source of strength, psychological peace, and hope. Nawal (female, 31) described how her relationship with God serves her:

> I put first pleasing God, faith in God, preserving and practicing religion. This is the core foundation of my life. When this is okay, the rest will come into a good line. When I maintain my relationship with God and please him and make sure that my prayers are consistent, it is what satisfies my spirituality…This will bring psychological peace and satisfaction.

It is noteworthy to mention that participants referred to "faith in God" as a foundational value even when ranking other values prior to faith in God. Ghofran (female, 23), for example, ranked "happiness" first, but she explained her rank ordering this way:

> I basically put happiness and psychological peace first, because I think that it's the most important thing and that's my biggest goal in life, but a huge factor behind having psychological peace and happiness is believing in God meaning pleasing God.

Participants highlighted "pleasing God" as an important value that naturally flows from "faith in God". Participants emphasized that when one truly believes in God, one strives to act in accordance with His expectations. Participants agreed that faith can be demonstrated through various daily practices, such as taking care of children, being kind to others, or generally "having God in mind in all interactions". One participant, for example, said "it's not just about believing in something, but it's also about putting in into action and incorporating it into your daily life". However, they underscored the importance of daily prayers as a powerful way to demonstrate faith. The three items of "praying", "practicing and preserving religion", and "reading and learning the Quran" were ranked highly as the most important ways to please God. Najwa (female, 39) described why she prays:

> I do my prayers…not because I have to do them, but I do them for myself to help me keep these two important things [referring to pleasing God and faith in God] in my life…this helps me alleviate my anxiety and my fears. It helps me navigate life. It gives me a compass to know how to act with different types of people and how I can accept circumstances. I overcome depression…I overcome anxiety…I overcome any transition in my life. I accept everything that's happening with me. This gives me happiness.

Participants recognized the Quran as a "valuable guide" for practicing religion and being a good Muslim. They emphasized the need to go beyond simply reading the Quran and to actively strive to put its teachings into practice by comprehending the underlying meanings. Hamza (male, 41) described the importance of developing a deeper understanding of the Quran:

> You have to practice your religion and learn about the Quran. It's not just about reading; you have to understand the meaning…There are people who are specialized in explaining [the meaning of the Quran]…They tell you what to do and what not to do…[Once you know what to do and what not to do], you have to apply [these teachings] and we can see that the rest are results [of applying the teachings] such as happiness, peace, having a nice relationship with people, being good in society, all of these come after [applying the teachings]. We can say the number one [task] is understanding God, what he wants; his order.

Centrality of faith and religion was apparent in participants' narratives when discussing the significance of other important values and practices. An important value that was highly emphasized after "faith in God" and "practicing religion" was "caring for parents". One participant mentioned that "God does not excuse us if we do not take care of our parents" and

others referred to religious teachings that remind Muslims about their "obligation" to their parents. Wajd (female, 21) explained why caring for parents is important to her:

> Of course, we know that in the Quran, in a verse, God gave a commandment about himself and right after, in the same verse, he talks about the parents. Right after God, it is our parents, no matter what. So that's why I have caring for my parents right after these [referring to items related to religious practices].

In addition to "caring for parents", participants referred to their faith and religion when explaining the importance of many other value items. For example, some participants explained that "education and learning" are important because "my religion promotes [education] in order to make a difference for yourself and your society". Inbar (female, 21) explained why education is important to her:

> I think learning about everything in this world and even learning about God is important…For me, personally, my faith in God gives me more skills to deal with stuff and persevere. In Islam, we are very encouraged to learn…like we believe that the first revelation to the prophet was "to read" so I think learning is very important.

Another participant explained that "maintaining health" is a "form of pleasing God" because "you have to take care of the body that he has given you". Another participant said that "hygiene" is important because there is a saying in Islam "that hygiene is half of your religion". When explaining why "benefitting and contributing to society" and "creating good relationships with people" are important to her, Hiba (female, 44) said:

> Benefiting and contributing to society...I mean, if you're a good Muslim, you do that anyways. Everything that has to do with people: kindness, empathy, modesty, loving

> others, respecting others, tolerance and forgiving… they are all together because as a good Muslim, you have to be kind and good to others.

Well-Being as a Result of Faith in God

The second strong theme identified was *well-being as a result of faith in God*. While values such as "happiness", "psychological peace", and "satisfaction" were regarded as important, participants consistently linked them to their relationship with God. Participants frequently described that they can "overcome fear and anxiety" through "trusting God". One participant, for example, said that she can "relax" when she realizes that "God knows what is best for her" and that "God has chosen what is happening" in her life. Another participant mentioned that when she "practices religion" she feels satisfied with herself and her life. Participants frequently mentioned that "praying" and "reading the Quran" can help them feel happy. One participant remarked that reading the Quran every day helps her to "have a good boost for emotional well-being" and "have positive start of the day". Zoha (female, 37) explained how she achieves inner peace:

> How do you to get this inner peace and happiness? When you are satisfied with what you have, when you are satisfying Allah and when you have faith…you are going to have this inner peace…If you do not have your inner peace you will struggle, become miserable and sad.

Yashfa (female, 41) expressed how her happiness is closely linked with her faith in God:

> Happiness is very important because if you are not happy, you can't do anything else. And for me, no matter what comes in your life, if you are satisfied with everything that God has given you, you should be happy.

Inherent Versus Secondary Importance of Values

The third theme identified was the contested view regarding the *inherent versus secondary importance of values*. While participants generally viewed all the items presented to them as important, they had varying opinions on whether certain values were inherently or secondarily important. For instance, values related to faith, family, and morality were considered fundamentally important, as were values that emphasized a Muslim's role in society. However, some participants disagreed on the inherent importance of values such as "success", "financial security", "happiness", "education", and "working". While some considered these values as important in their own right, others viewed them as secondary to more fundamental values.

Secondary Importance. Those who described "success", "financial security", "happiness", "education", and "working" as secondary, referred to these values as important only if "serving a religious purpose", or referred to them as results of being a good Muslim or having fulfilled all the other inherently important values. Ammara (female, 30) explained how some items hold a secondary importance to her:

> I don't know how to explain it, but some of them [referring to the items] are only important because they serve another purpose that is listed here. For instance, when I am talking about stability, success, and happiness, and working… I feel successful because I live my life with a clean conscious every single day.

As mentioned previously, participants frequently associated "happiness" with having faith, and viewed its value as conditional. Similarly, some participants considered "success" a secondary value that results from faith and made a distinction between materialistic and spiritual success. For instance, Wajd (female, 21) explained how she defines success differently from others, and would rank it differently based on the two definitions:

> Success, of course, depends on what we are talking about. When I read it, I thought of what everyone thinks success is: like having money and being popular. But I can put my own definition of what success is and, in that case, it would go in the beginning [of the list]…I believe we are in this life as a test so, success would be to go to the right place. If that's the case, it is the goal of life according to me.

Similarly, Ahsan (male, 24) noted what "success" means to him:

> I think people define a successful person as someone who has a reasonably good position and money. And I do not think that it's important. It's more important to do your duties here on Earth and in life: which is to worship Allah because you love him and to do your duties towards the society. Being successful in people's eyes is not that important for me. You have to do what you have [to do in accordance with religion] and the results are not that important.

"Financial security" was also often referred to as holding importance only "after all the other values", and as a result of being able to practice other important values. Inbar (female, 21), for example, said:

> Financial security… I think it is important to everyone, but it is not a guarantee. I think in Islam, it's more about providing [for others] and be hardworking…to have the ability to provide and just have the drive…that's more of a value, whereas financial security is not a value. It's like a result… like if you are doing all of this [referring to all other rank ordered cards], you will get to achieve financial security, success, and happiness.

To those who regarded "financial security" as a secondary value, the importance of this value was derived from allowing one to fulfill other important values such as "helping others" or

"providing for family". Hamza (male, 41), for example, described why financial security is important to him:

> Money and financial security are important as well. There are a lot of hadiths [prophet's sayings] about money. People who give money are better than those who receive money. It is very important to leave money for your family. Helping people, generosity…you have to give money. At the end of each year, you have to calculate your benefits and you have to give about 2.5 percent of your money to the poor…

"Working" and "education" were both regarded as important. Nevertheless, some participants emphasized that these practices are important because they allow Muslims to benefit and contribute to their society. Nawal (female, 31), for example, explained that "working" is just one form of contributing to society and that "education", if not accompanied by other important values, and if not in service of other important practices, does not carry much importance to her:

> Education and our learning are very important, but if we don't have this [referring to values related to religion and morality] and have this [referring to education], then it is very bad. Like we can use education and learning in a bad way. We have to have the good core values… I would rather be with someone who is not educated, but who has good manners…Education is a very important tool that we use to benefit society…and we use it to benefit ourselves and everyone else.

Inherent Importance. In contrast to participants who regarded "success", "financial security", "happiness", "education", and "working" as only conditionally important, some others referred to these values as inherently important. These participants, instead of referring to religion or other important values, were more likely to refer to their own needs when explaining

the importance of these values. Adil (male, 22), for example, noted the importance to achieving success for his motivation and making progress:

> Success is important for the things that you work on because if you work on something that matters to you and you work hard on it, you would want to get success at the end…some phases of our life is about achieving things and not staying on the same level…trying to push ourselves constantly.

Similarly, some participants mentioned that "education" is important because it simply helps them "find a job" and "earn an income". Some others mentioned that education and learning can be rewarding because they can benefit themselves through benefiting others. Jamila (female, 24) described how having an education makes her think more positively about herself:

> I'm glad I have education. I love it. When people trust me for work or when they open up about something, it is really valuable to me…to have this education and learning is important to me. I think it is something that I owe myself and I owe it to people around me. I feel like, the more you learn, the more you are able to share, the more you're able to give and the more you get yourself.

When discussing the importance of "working", participants mentioned that working can be a significant source of "satisfaction" and well-being for them. Qadira (female, 41), for example, put the importance of working for her in this way:

> Working is my top priority. It has always been…whether I have a family or not. It is life. For me, health is working!

Others explained that working can give them a "sense of purpose". Hoorab (female, 22) made an association between working, success, and financial security:

> I rank working because it gives you a sense of life…like if you are working and you are happy with what you are doing, that means you are successful, and have financial security.

Explaining the importance of "financial security", some participants mentioned that financial concerns can be a significant "source of stress" for them. Financial security, as such, was regarded as important because it can help participants "avoid stresses", "maintain life-style", "meet the basic needs", and "focus on doing the other things that you like to do". Aneesa (female, 19), explained the importance of "financial security" in creating a sense of stability:

> I put them [referring to financial security and stability] together because from the moment that you do not have to think about what you are going to eat, where you are going to live, and those basic needs… then you can move onto the next steps.

Finally, unlike the narratives of those participants who believed that "happiness" and "satisfaction" come only as a result of having faith or being a good Muslim, a few participants described happiness as inherently important and a necessity, one that protect people from "stressful" life events. In addition, some participants explained an opposite relationship between faith and happiness such that happiness would allow a person to practice religion and maintain faith. Hoorab (female, 22), for example, said:

> If you are not at peace psychologically, if you are not happy, you are not really going to be able to pray… you are not going to be able to have faith in God.

Despite Hoorab's view linking happiness with faith, most participants in the study viewed religious duties as unconditional and not dependent on one's level of happiness. They believed that having faith in God and practicing religion are a Muslim's duty, regardless of desired outcomes such as happiness, success, or financial security. Hoorab's view, however, suggests a

reverse relationship between the two concepts, where happiness is prioritized over faith, and practicing religion is seen as conditional upon another quality (i.e., happiness).

Overall, it appears that although the majority of participants described "success", "financial security", "happiness", "education", and "working" as secondary and only important when used in the service of religious duties, a minority of participants think of these values as inherently important in enabling them to fulfill their personal needs for "purpose", "satisfaction", and "stability".

Pile Sorting Analysis of the Domain of Important Values and Practices

On average, participants created 5.4 piles with a range of 3 to 8 piles when categorizing the items in the domain of important values and practices. A non-metric multidimensional scaling of the elements of this domain is shown in Figure 2. The two-dimensional solution was satisfactory (stress = 0.134); this stress value is below the threshold of 0.3 suggested in Sturrock and Rocha's guidelines to detect an underlying structure of 35 items along two dimensions. This stress value indicates that the obtained MDS solution is unlikely to have occurred by chance and that it represents the data within a 99 percent confidence interval (Sturrock & Rocha, 2000). Also displayed in Figure 2 are six groups of items obtained from a hierarchical cluster analysis applied to the MDS. Items with the same colour were more frequently piled together. The labels for each cluster are given by the author and are generally informed by how participants labeled their piles.

Starting in the higher-right corner of Figure 2 is a tightly clustered items labelled *faith and religion*, which includes "faith in God", "pleasing God", "learning and reading the Quran", "praying", and "preserving and practicing religion". In addition to "faith" and "religion", participants often labelled piles containing similar items as "the fundamentals", "the most important pile", and "the pillars of life". These labels are consistent with the aforementioned

theme of centrality of religion. In addition to themes emphasizing the importance of these items, participants described this pile as ways to strengthen their "relationship with God", experience the "presence of God", and ways of showing that they "worship Allah".

The second display of closely placed items forming a cluster are labelled *family*, which include "caring for parents", "providing for family", "providing for family", and "raising children". When discussing values related to family, participants often regarded "caring for parents" as the most important family value, whereas they often referred to values related to creating a family and raising children as practices that can depend on one's level of readiness to do so. Younger participants, in general, indicated that creating a family is presently not a priority for them. Participants used labels such as "family roles" and "fundamentals of family" to refer to the items in this cluster.

On the far left of Figure 2 is a cluster of items labelled *community*, which includes "benefiting and contributing to the society", "cooperation", "being a good example", "respecting others", "helping others", and "a sense of community". Participants described the piles with similar items as "responsibilities towards other people", "the values that permit us to be a part of a society", and "ethical values that help with relationships with others". Fulfilling one's duties towards society was often regarded as one of the "main duties of a Muslim".

Right below the community cluster is the cluster of items labelled *morality*, which includes "honesty", "modesty", "good manners", "generosity", "tolerance", and "kindness". Participants described the piles containing these items with labels such as "personal ethics" and "moral values". Participants described that these values naturally "come with the belief in God" and that Muslims are often taught to be mindful of them from a young age. Participants often

emphasized that these values provide guidelines on "how to treat people" and how to "maintain positive relationship with others".

On the bottom-right of Figure 2 are two overlapping clusters of items labelled as *well-being* and *economic aspirations*. This overlap is not surprising given that many participants referred to the items in these two clusters as the results of being a good Muslim and fulfilling one's duties towards God and society. Despite the conceptual overlap between these two clusters, participants varied in the ways that they described the two clusters. The well-being cluster containing items including "happiness", "satisfaction", "psychological peace", "patience", "perseverance", "hygiene", and "health" was often described by participants by labels such as "psychological and physical well-being", "mental health", and "health related". Participants often explained that these qualities are needed to live a purposeful and healthy life and overall, they perceived these values positively. However, the majority of participants used labels with negative connotations when describing the economic aspirations cluster containing items including "success", "working", "financial security", and "education". Piles containing these items was often labelled as "secondary values", "unrealistic goals", materialistic and capitalistic goals", "monetary importance", "values imposed by society", and "survival pile". As discussed previously, a minority of participants had a more favourable view of these items and labelled piles with similar items as "values related to professional life", "things you desire", "things that allow us to be a part of a society", and "nice things to have".

Overall, the result of MDS and hierarchical cluster analysis along with participants' narratives suggest the presence of a culturally-shared system of thinking that allowed participants to make distinctions between various important values and practices. As seen in Figure 2, one dimension along which participants organized these concepts was importance. Moving from the

top to the bottom of Figure 2, participants seemed to organize the values based on their importance, where the most important values and practices such as religion and family-related values appear on top, community-related values in the middle, and more individualistic values at the bottom. Moving from the right of the figure to the left, participants seemed to have organized the concepts along the dimension of individuality-community with more personal values appearing on the right, moving to family-related values in the middle, and finally, with values related to one's community and society to the left.

Pile Sorting Analysis of the Domain of Mental Illness

On average, participants created 6.4 piles with a range of 3 to 10 piles when categorizing the items in the domain of mental illness. A non-metric MDS of the elements of this domain and the hierarchical cluster analysis applied to the MDS are shown in Figure 3. The two-dimensional solution was satisfactory (stress = 0.112) as it was below the threshold of 0.3 suggested in Sturrock and Rocha's (2000) guidelines to detect an underlying structure of 44 items along two dimensions.

Starting on the right side of Figure 3 is a cluster of items labelled as *psychological difficulties*, comprising "sadness", "negative thinking", "eating too much or too little", "anger", "fear", "guilt", "worry", "stress", "confusion", "loss of desire", "sleeping problems", "depression", and "introversion". These internal and personal experiences were described by participants as factors that can both cause MI, but also indicate the presence of MI. Participants often labelled piles containing these items as "emotions", feelings that come as a result of mental illness", "negative feelings", "states of mind", or "psychological experiences" emphasizing how these items are related to what a person can experience internally. In addition, participants often referred to these items as "symptoms of mental illness" or "observable signs of mental illness".

Participants mentioned that the items in this pile can at times be “common experiences” that are “normal responses to negative life events”, making them “not necessarily negative”. Participants typically emphasized that it is only in “severe” forms that these experiences can cause MI, or indicate the presence of MI. For example, participants often mentioned that sadness and crying are “common human experiences” that can be symptom of MI only if they are “excessive”.

The next cluster appearing in the middle part of Figure 3 is labelled *interpersonal difficulties* comprising “loss”, “failure”, “not being accepted by others and being judged, “problems with people”, “isolation”, and “loss of friends”. This cluster was mainly related to interpersonal issues that participants described as “social” and “people-related” concepts that can contribute to MI. One participant described “failure” as perceived by society, which can lead to “isolation and feeling judged by others”. Similarly, “loss” was associated with “loss of the loved ones” or “losing one’s social circle”, “leading to isolation and feeling alone”. Participants typically associated the items in this cluster with causes of MI; however, some participants described this cluster as “the outcome of bad things happening to you” or “what happens to your social life when you are depressed”, emphasizing the social and interpersonal consequences of struggling with MI. According to participants, these consequences consist of both a person’s desire to voluntarily self-isolate from society due to experiencing MI, as well as involuntary experience of isolation due to experiences of being judged, rejected, or stigmatized by one’s community.

On the top left part of Figure 3, there is a cluster of items labelled *negative experiences* consisting of “experiencing violence”, “greed and frugality”, “experiencing neglect”, “being abused”, “bad influence”, and “addiction to drugs and alcohol”. The common themes linking the items in this cluster seem to the highly undesirable, severe, and stigmatizing nature of the

experiences included in this cluster. Participants typically referred to these experiences as "traumatizing", "severe", and "causing mental illness", as well as highlighting the belief that a person who is abusive, violent, and neglectful "is not a good Muslim". Participants typically associated the items in this cluster with "bad influence" that may be the outcome of exposure to "bad peers" or "social media". Similarly, "addiction to drug and alcohol" was considered a "severe problem" that can both lead to and be a consequence of MI.

In the middle left side of Figure 3, there is a cluster of items labelled *negative circumstances*, which includes "illness", "genes", "problems at work", "poverty", "shocking events", "immigration", "weather and climate", and "bad living conditions". Participants typically described this pile as "external causes of MI" that "you do not have control over". Participants agreed that the items in this cluster can cause mental illness; however, participants mentioned that some of these items, such as "immigration" or the "weather", are not necessarily negative experiences and can at times lead to psychological growth for a person.

In the bottom left side of Figure 3, there is a cluster of items labelled *familial problems* comprised of "childhood problems", "disintegration of family", "problems with children", and "being away from family". Participants typically described the items in this cluster as "family-related difficulties" that lead to MI or be a consequence of MI.

Finally, on top of Figure 3, there is a small cluster labelled *issues related to faith* comprised of "lack of faith" and "being away from religion". Despite the small size of this cluster, the elaborate narratives underscore the significance of these items for participants. A qualitative analysis of these narratives reveals a divergence of views among participants regarding these items. Although all participants agreed that faith in God and practicing religion can aid in coping with MI, participants disagreed on whether these concepts can directly cause

MI. While most participants agreed that weakness in faith and not practicing religion can contribute to MI, a minority of participants mentioned that such views of MI can be stigmatizing. Given the saliency of this cluster for participants and the abundance of narratives offered, here, I present participants' quotes on both themes: *lack of faith as a cause of MI* and *faith as a coping strategy*.

Lack of Faith as a Cause of MI

Participants who believed that lack of faith or not practicing religion can cause MI often linked these items with most items included in all the other piles described above. For example, participants mentioned that weakness in faith can cause a person to experience a range of negative emotions such as fear, anger, or sadness as well as experiencing low confidence or negative thinking. Similarly, participants stated that not practicing religion can cause one to have interpersonal difficulties or that it can lead to addiction to drugs and alcohol. Zoha (female, 37) explained the relationship she perceives between religion and all the other items she had pile sorted:

> This group is just by itself: religious stuff such as lack of faith and being away from religion. But for sure, they [referring to the nine piles that she had made] all intersect at some point. For example, if you do not believe in something, you start asking what your purpose is and might end up with depression, feeling stressed, failure, etc.

Participants commonly named some of their piles with labels such as "being away from religion and consequences of it" or "what happens if you get away from religion". Describing her pile labeled "what happens when you distance yourself from God and religion" Aman (female, 22) said:

> This [referring to the pile] is what I relate to the most: when I distanced myself from God and religion…it made me fearful. And the fear made me depressed…all these things [referring to the other items in the pile such as "sadness", "addiction to drugs and alcohol", "unstable mood", "bad Influence"] can happen if you are away from religion. Also, failure can happen; whether it's failing in the world or failing God.

Karyme (female, 19) noted the impact of lack of faith on her emotions:

> I think lack of faith and being away from religion cause worry, guilt, fear. When I do not have much faith, I am always scared… I am always thinking… Always thinking about what if I die? What if I have not done anything for my religion? … and also, some other types of fear, like perhaps the loss of parents when you lack faith. When you lose your family members and when you hope that religion is real so you can perhaps see them later.

Participants also described the relationship between daily prayers and MI. Jamila (female, 22), for example, described how the cause of her anxiety was explained to her by her mother:

> I had a lot of sleep problems and anxiety. My mom would always say it's because you do not pray and you're far from God. She would see it as a cause but for me, it would be more of a result. It could be both, it depends.

Similarly, Akilah (female, 20), explained what "failure" means to her and how it can relate to other negative feelings:

> I think when I see failure… I think it's mostly religious failure of not being able to fulfill your five daily prayers because you are struggling with them, or you just think you are not good enough… I think that fear comes from the fact that you are not doing enough,

> and you might be afraid to go to hell type of thing… and feeling guilty that you are not fulfilling those religious obligations.

Faith as a Coping Strategy

Contrary to believing that there is a causal association between faith and MI, some participants rejected this association and emphasized that faith in God and religion can help a Muslim to better cope with the difficulties caused by a MI. Participants in this group appeared to be aware of the prevalence of the causal associations between lack of faith and MI within their community and wished to offer an alternative explanation when describing their piles. Hamza (male, 38), for example, said:

> Closeness to God could help you to get out of mental illness but it is not the cause of it. If you get closer to Allah… it's like meditation and therapy, or all the other things that can help you…

Nabila (female, 32) noted that there may be misconceptions about the association between faith and MI:

> I call them [referring to her pile containing items such as "lack of faith" and "being away from religion"] misconceptions usually associated with psychological problems… people thinking that they [i.e., "lack of faith" and "being away from religion"], are either leading to psychological conditions or are the result of psychological conditions. That's why I believe there are misconceptions. I do not think they have anything to do with mental illness.

Nawal (female, 31) mentioned that linking religion and MI can be stigmatizing and she considers that causes of MI can be independent from one's faith and religious practices:

> I wanted to put lack of faith and being away from religion here with this group [referring to her pile labelled "depression and anxiety group"] but I do not want to stigmatize it. Because you can be close to religion and God…you can pray but still feel depressed…maybe you're depressed because someone passed away. Then you can cry, you can be sad, you can be unsatisfied with life. It's a normal emotional reaction.

Finally, Najwa (female, 39) explained that being religious does not necessarily protect you from MI but it can help with coping:

> I put lack of faith and distance from God here [in a pile labelled "severe problems related to mental illness" including items such as "depression", "failure", "loss of desire"] not to say that religious people do not feel these things and don't suffer from these things. But I just put it as a way of saying that if you have closeness to God, you can get through these easier than someone who possibly doesn't… having faith in God helps you to accept and deal with losses without falling into despair.

Overall, the results of the MDS and hierarchical cluster analysis, coupled with participants' narratives in the domain of mental illness, indicate the existence of a shared cultural framework that enables participants to differentiate between a range of spiritual, biological, social, psychological, and environmental contributors to MI, while also distinguishing between causes, symptoms, and consequences of mental illness. Moreover, the two primary dimensions along which participants organized these concepts appear to be the degree of severity and the individuality-community axis. The top of Figure 3 reflects the most severe, unpleasant, and stigmatized concepts related to "lack of faith", "abuse", "addiction", "shocking events", "illness", and "anger". Conversely, less severe and less stigmatized concepts, such as "introversion", problems related to family, and interpersonal difficulties, appear at the bottom.

Participants also organized the concepts along the individuality-community axis, with individual experiences such as emotions, thoughts, and behaviours placed on the right side of the figure, while community or environmental concepts are on the left side.

Pile Sorting Analysis of the Domain of Help-Seeking Preferences

On average, participants created 4.3 piles with a range of 3 to 8 piles when categorizing the items in the domain of help-seeking preferences. A non-metric MDS of the elements of this domain and the hierarchical cluster analysis applied to the MDS are displayed in Figure 4. The two-dimensional solution was satisfactory (stress = 0.081) as this stress value was below the threshold of 0.3 suggested in Sturrock and Rocha's (2000) guidelines to detect an underlying structure of 28 items along two dimensions.

The items on the middle right side of Figure 4 form a tightly clustered group labelled *religious solutions*, including "talking to God", "invocation", "praying", "strengthening faith", "reading the Quran", and "practicing religion". Participants often referred to the items in this cluster as "religious", "spiritual", or faith-based solutions" that are focused on strengthening one's "relationship with God". This cluster was described by participants as effective ways to "overcome negative thoughts" by "seeking help from God" and "allowing God to interfere" when going through emotional difficulties. Participants emphasized that solidifying one's connection with God through prayers, invocation, and reading the Quran can make a person with MI to "not feel alone". Nawal (female, 31), for example, described how religious solutions can help:

> Even if we have the most amazing family, friends, community, and social workers, only God can understand deeply what we are feeling. Only Him can give us the remedy for

> our heart and soul. When we talk to him, He will not judge us, He is the one who can change our destiny.

The next cluster, comprised of "going to the mosque" and "attending religious workshops", was labelled *secondary religious solutions.* While participants considered these two items to be related to religion and generally helpful strategies to cope with MI, they often emphasized that they are "secondary" to the first group and "less essential". Participants offered three perspectives for why they viewed the items in this pile as different from the first pile. First, participants distinguished between "strengthening one's personal relationship with God" versus attending events at mosques or religious workshops and emphasized that the former can have greater healing power for Muslims. Second, participants agreed that these secondary religious solutions may not be helpful to everyone, and it may be too demanding to ask someone with MI to attend such events. Third, participants referred to the presence of stigma and lack of understanding that a person with MI may have to face if having to attend public events at a mosque or a religious workshop. Nawal (female, 31), for example, noted:

> I would not tell someone to…go to the mosque…because unfortunately, I am sorry to say this, but I do not know how much the Muslim community can help. They cannot provide a good social support. I am not being judgmental, but it'd be great to work on the community and the support we can get from the Muslim community.

The third cluster, consisting of "seeing an imam" and "getting help from the Muslim community", was labelled *help from the Muslim Community*. Participants described these items as both "religion-related" and "social". Consistent with how participants described this pile, this cluster appears between the religion related clusters on the right and the *social support* cluster on the left in Figure 4. Similar to the second cluster described above, participants generally

described the items in this pile as "secondary" to the first pile or as "less helpful" relative to the items in other piles. Specifically, while participants agreed that consulting an imam about religious concerns can be helpful, they emphasized that imams are not trained to address issues related to mental health. Najwa (female, 39), for example, explained why she would not consider seeing an imam for issues related to MI:

> I don't think they [referring to talking to an imam or getting help from the Muslim community] work [to improve mental health]. An imam or sheik are not registered… They're not licensed counsellors. They do not know how to talk to people. They know how to lead prayers and that's it… That's why I said I do not talk to a sheikh or an imam because [if I bring up something that is upsetting for me] they would say "this is God's plan! Are you upset with God's decision?" Sometimes they say the wrong things.

Moreover, participants referred to the presences of stigma and lack of understanding about MI within the Muslim community that can make these two strategies less optimal. Maham (female, 27), for example, described:

> I don't know if you have noticed this but especially in the Muslim community, we don't pay attention to professional interventions at all… and it's very important. And they [people in the Muslim community] say if you have mental illness, it means you are not a good Muslim. Like we have this saying all the time but I do not think it's true.

The fourth cluster, appearing on the left of Figure 4, comprised of "asking for help", "talking to friends", "talking to family members", "talking to a wise person", "confiding in someone close", and "seeking social support", and was labelled *social support*. Participants generally referred to the items in this pile as social behaviours that involve "communication with others" and "asking for help from others". While participants generally considered these items to

be a helpful source of support for a person experiencing MI, they emphasized that seeking social support can backfire for two reasons. First, participants mentioned that people may offer advice that is not helpful. Adil (male, 22), for example, explained why seeking social support may not be a solution to MI:

> I think this one [social support] is great because it adds another perspective, to the extent that you are comfortable sharing with others, but usually people will give you advice from their own experiences in life that would not solve your problems…so it is always good to talk with people if it relieves you a bit, but it's not a long-term solution if you want to seek real solution at the end.

Second, similar to discussions of stigma in the previous two clusters, participants warned against the presence of stigma and lack of understating about MI within families and social circles. Karyme (female, 19), for example, recalled her friend's experience when facing MI:

> I have a friend who gets panic attack all the time and her family are very ignorant of mental illness. They [her family] say to her: go ahead and pray even though she went to see a doctor and she told her that she needs to see a psychologist and they [her family] kept ignoring her, telling her no, if she just prays, things are going to be fine for you.

The fifth cluster, located at the top left of Figure 4, contains "having free time", "relaxation", "travelling", "exercise", and "working on self", and was labelled *self-help*. Participants generally referred to the items in this pile as "personal activities", "things you can do on your own when you feel sad", or "self-care strategies you can find on Google". Participants viewed these items positively and agreed that they can help to "improve self", "prevent getting deeper into depression", "overcome bad thoughts", or "change your mood".

The sixth cluster, located in the middle left of Figure 4, includes "non-isolation" and "helping others", and was labelled *social involvement*. Participants generally viewed the items in this pile as social activities that are distinguished from the items included in the social support cluster. Participants indicated that the purpose of these two items was to get socially involved rather than to necessarily seek social support from others. Not surprisingly, and due to its association with both social and personal behaviours, this cluster appears in-between the self-help and the social support clusters in Figure 4. Participants often mentioned that MI can naturally lead to isolation and emphasized the importance of non-isolation through social involvement. Participants agreed that helping others can be an excellent way to increase social engagement, as well a positive way to cope with MI.

The final cluster in the bottom left of Figure 4, includes "seeing a psychologist or a psychiatrist", "seeing a social worker", "seeing a life coach", "seeing a medical doctor", and "taking medication", and was labelled *professional help*. Participants frequently labelled these items as "professional interventions". Participants emphasized that what makes this cluster of items different from the social support cluster is that professionals are "trained" and formally "educated" to address issues related to mental health, and that their interventions are "science based". Participants made a clear distinction between different types of professionals highlighting that psychologists, psychiatrists, and social workers are the most trained to treat issues related to MI relative to physicians. In addition, participants often mentioned that life coaching, although considered a *profession*, may not be as reliable, science based, or effective as the other types of professional mental health interventions in this cluster. Adnan (male, 22) for example, referred to a lack of formal education for life coaching and mentioned that "seeing a psychologist would help because I think they can understand you better and they studied a lot,

but anyone can be a life coach". In addition, participants often described hesitation in considering taking medication for mental health issues. Participants generally viewed taking medication as a temporary solution that "does not really change your mood" and can potentially lead to further complications by "messing up your mind". Participants noted that medication can be considered in "serious cases" and only after exhausting other help-seeking strategies. Akilah (female, 20), for example, mentions that taking medication "should be the last resort" explaining that, "I do not like seeing that we have to depend on a pill to feel better, but if it's needed, I understand". When describing the items in the professional help cluster, participants elaborated on their preferences for a mental health professional and the variables that would make them more likely to consider seeing a professional. A strong theme related to cultural mistrust emerged from participants' narratives about this cluster. As such, this theme will be discussed in depth later in this chapter.

Overall, the MDS and hierarchical cluster analysis, combined with participant narratives, revealed the presence of a culturally-shared system of thinking that allowed participants to make nuanced distinctions between various help-seeking strategies. As seen in Figure 4, it appears that participants organized the concepts in this domain along two main dimensions: religiosity and social involvement. Moving from right to the left of Figure 4, it appears that participants organized the most religion-related items on the right, social religious activities in the middle, and non-religious personal, social, and professional help-seeking strategies on the left. Moving from the top of the figure to the bottom, it appears that participants moved from activities that they can do on their own to activities that require social involvement such as social support and professional help. Religious activities were in the middle, as they encompassed both personal and social help-seeking. Notably, participants did not prioritize any cluster of strategies, seeing

them as complementary. Therefore, preferences for one cluster did not preclude participants from considering others. Participants believed that "all [solutions] should be implemented together". Zoha (female, 37) explained how she would recommend various religious, professional, social, and self-care solutions to someone with MI:

> Talk to God… Once you finish your prayer, you have to go to the doctor… Seek professional help. Then, after you take your medication, you have to try to relax, do some exercise, have some free time, travel, or talk to someone close to you and choose that person wisely. Someone who does not judge you.

Participants noted that often there is a perception within the Muslim community and the society at large that religious coping and seeking professional help contradict each other. Participants stressed, however, that Islam promotes active help-seeking. Ghofran (female, 23), for example, noted:

> You could talk to God… seek psychological help… and also talk to your family for example. I don't think the Quran or Islam necessarily go against seeking medical help. I think it promotes a combination.

Altogether, the results discussed in the domain of help-seeking preference point to the presence of an active and informed approach to help-seeking within our sample. While participants point to the perception of stigma towards people with MI, as well as lack of understanding of issues related to MI within their community, I did not find evidence of holding personal stigma within our sample. Participants seemed to be aware of and expressed a critical attitude towards perceived MI stigma within their community. Contrary to previous studies indicating the presence of unfavourable attitudes towards seeking professional help (e.g., Aloud & Rathur, 2009), I found strong evidence for willingness to seek professional support among

participants, and identified the absence of negative attitudes towards people suffering from MI. However, the qualitative analysis of participants' narrative shed light on why participants may hesitate to seek professional help. This analysis revealed a strong theme of *cultural mistrust of Western mental health professionals*.

Cultural Mistrust of Western Mental Health Professionals (WMHPs)

Participants held favourable views towards seeking professional help for MI symptoms. They emphasized that while religious coping, social support, and self-care were also beneficial, relying solely on these strategies without professional services may not lead to symptom improvement. Participants, however, expressed strong preferences for a mental health professional who is "from the same cultural background", "familiar with the Muslim culture", or "a Muslim". Ahsan (male, 24), for example, stated:

> If I have the choice between two therapists, I would prefer someone with the same background and religion, because it will be equal to my values, beliefs and the solutions [offered by the professional] will be easier for me [to implement].

Similarly, Shafagh (female, 21) expressed that in addition to wanting her therapist to be "non-judgmental" and "an active listener", she prefers a Muslim therapist because he/she/they "would relate to what I am thinking". She pointed to the lack of representation of cultural minorities within professional services and asked: "if I ever want to see a psychologist, why do I always have to see a white, middle-aged woman who has no understanding of my culture?"

Investigating participants' preferences, a strong theme of *cultural mistrust of Western mental health professionals* (WMHPs) was identified. This theme is broken down into five sub-themes that together point to the presence of cultural mistrust and apprehension for Arab Muslims when considering professional treatment. These sub-themes conceptually overlap as

they all point to an underlying concern about feeling misunderstood or misperceived by Western professionals. These sub-themes include *apprehension about not feeling understood, apprehension about being judged*, *perceived incompatibility of values*, *lack of openness*, and *apprehension about being imposed upon*.

Apprehension About Not Feeling Understood

Many participants noted that "feeling understood" is a determining element when considering seeking professional help. Participants, however, commented on their concerns about feeling understood by WMHPs. Akilah (female, 20), for example, stated:

> I'm Muslim… I have my own beliefs. I was born into different culture, so I don't think they [mental health professionals] understand where I come from. Even if they do understand, I don't think they understand on a personal level. And I think you need that personal level connection to be able to understand. Especially when it comes to a psychologist. I think it's really important to go to someone who understands you and went through the same life experiences. Not necessarily the same exact, but if you're Muslim go to a Muslim psychologist. I think that it helps with the connection…

Participants noted that Muslim views on mental illness may be unique and challenging to convey to a non-Muslim therapist. As Najwa (female, 39) explained, in Islam, hardships are seen as a "test", and Muslims facing mental illness may struggle with questions like "is this a test?", "is this a punishment?", or "does God love me?". Najwa added that mental health professionals "don't always understand the concepts we have about why people are given hardship, and these concepts are difficult to explain unless the person is a Muslim". In addition to general apprehension about feeling not understood, some participants shared their actual experiences of

seeing a WMHP. Ghofran (female, 23), for example, recalled having to prematurely terminate therapy with a WMHP due to not feeling understood:

> I actually have a therapist; I've seen more than one. I originally saw one who was not as culturally educated, and it was really hard to talk to her about my family issues or religious issues. She tried her best to understand, but she did not have the experience or the knowledge to understand where I was coming from, so I stopped seeing her and just assumed that I would figure it out on my own. But when I was still struggling, I decided to go to a different place, and they actually asked specific reasons as to why you are seeking therapy and I mentioned cultural sensitivity, so I was actually paired with a therapist who was Lebanese. She is not Muslim, but she is Lebanese and culturally sensitive, so I don't have to explain so hard… she just understands.

Apprehension About Being Judged

Many participants commented that they would consider seeing a mental health professional who is "non-judgmental" and "not quick to make assumptions" about participants' values and/or identity. When considering seeing a WMHP, participants expressed apprehension about being judged. Maliha (female, 37), for example, explained her concern about how she can be perceived by a WMHP: "it is in human nature to judge, especially if someone doesn't understand your religion and culture, they [WMHP] might feel it is weird that you are doing certain things". Similarly, Ghofran recalled her concerns about how she may be perceived by her therapist:

> I just felt like I would give her certain conflicts and her eyes would widen and she would be so confused. I would try to tell her that this is normal in my culture, but then I also felt weird telling her that because I did not want her to think that my culture was just crazy or

> anything. I just stopped seeing her, but with the new therapist I do not need to explain myself.

In addition, participants commented on concerns about being perceived in stereotypical ways leading them to feel inaccurately judged. Ammarah (female, 30), for example, recalled having to drop out of therapy with a WMHP due to feeling "being put in a box" based on her appearance:

> If I would look for someone [i.e., a mental health professional], I would choose someone that is unbiased. Because I was in situations where people assume that you are somebody just by looking at you. Obviously, I am part of a visible minority so I need someone that could remain professional and not start to try to include their beliefs in the situations I am going through. My reaction would be defensiveness. I am only feeling this because I already experienced something like this. A professional had a lot of assumptions about me. She didn't read the questionnaires I answered, and she didn't help me, so I stayed seven minutes with her and excused myself and stopped. I don't have a gender preference or language preference; it is more about how I connect with the person and if I feel understood.

Inbar (female, 23), too, recalled an unpleasant encounter with a WMHP making assumptions about a Muslim child's family:

> I did social service at a college… and I was working with a counsellor. I noticed that when she was working with kids, she would have certain assumptions… and it was so annoying because you can't start a session with a kid already assuming that their parents are not going to be treating them well…So there was one girl who was wearing a hijab and the counsellor basically told me that "I'm pretty sure her [the kid's] family are very conservative like I am sure she is forced to wear it [the hijab]"…how do you start a

session assuming that about someone that you don't even know… It was so upsetting… I have so many friends who have also tried to get help and then they just feel more isolated in some ways because they are trying to get help, but the help isn't right.

Perceived Incompatibility of Values

Many participants commented on the lack of compatibility between Islamic and Western worldviews leading them to believe that a WMHP, who likely upholds a Western view, would not be able to understand issues that are important for someone with faith. Oma (female, 24), for example, put it this way:

> Personally, I would go to the psychologist. But I want to make sure that a psychologist is someone culturally competent. Often times, therapy is Eurocentric. I would feel better to see someone who understands my faith and it's so hard to find someone like that here.

Aman (female, 22) explained how this perceived incompatibility of values led her to feel misunderstood and judged in therapy:

> When I wanted to seek professional help, I realized that I couldn't really tell them [my problems] because everything I was feeling was linked to the religion…What happened is that for the first time this semester, I experienced panic attacks. I thought I was dying because I was not praying… I started thinking about this all the time, how I wasn't ready [to die]…Then I talked to a social worker that the doctor referred to me. And the social worker was like: "if you die everything is going to be finished… there's not going to be anything". And I was like "it's worse than you think". Then she's like "I am pretty sure you're good". Then I went to a psychologist…I think she's Christian, she was Latina. So, I felt I was less judged. But she couldn't understand because I think Christians believe

they're all saved, and I don't believe that. So, I was like she doesn't really get me and the only people that helped were my Muslim friends and family.

In addition to incompatibility of values in the domain of faith, some participants expressed concerns about lack of compatibility between Western and Muslim values related to family. Specifically, some participants reported believing that the centrality of values related to family and caring for parents are not often fully understood by WMHPs. Discussing some family disagreements with a WMHP, Inbar (female, 23), recalled her family environment being described as "really toxic" by her therapist and being advised to leave home, leading her to feel judged. Inbar added:

> The way people here [in the Western communities] think about family is different to what a Muslim thinks about family because we're brought up with so much emphasis on taking care of our parents and not just leaving them…I realized she [the WMHP] had no understanding of how important my family is to me. Sometimes people here move out if there's any form of disagreement with their families. But in the way that I've been raised, you work through it. I can get into an argument with my mom, but it doesn't mean I am never talking to her again and cut her off.

Additionally, some participants pointed out that incompatibility of values leads to WMHPs offering solutions that may not be helpful to a Muslim patient. Maham (female, 27), for example, explained why she prefers a Muslim therapist:

> I would prefer a Muslim psychologist to just help me go through it [MI]…Maybe in the Muslim way…I think the ideal would be someone who could give me steps and advice that are related to my faith. For example, I do not want someone to say "oh, go do yoga or meditate". I will go pray instead…because meditation and prayer are the same

> depending on your religion… [I like recommendations] that are specific to Islam but in a professional way.

Apprehension About Being Imposed Upon

Some participants expressed concerns about WMHPs imposing their worldview upon Muslim patients. They noted that cultural differences could lead to suggestions that conflict with a Muslim's values, potentially resulting in feeling "disrespected", "questioned" or "attacked". Participants also feared being pressured to change beliefs or behaviours that did not align with Western values. For instance, Nawal (female, 31) emphasized the importance of respecting her religion when seeking mental health services.

> I don't have a problem trusting the person [a WMHP] and I am open to meet anyone who is genuine, kind, sensitive, understanding, patient, and truly understands who I am and wants the best for me. It does not have to necessarily be a Muslim psychologist, but it would be ideal…if the psychologist is not a Muslim, it does not mean I have a problem because as long as we know who we are at the core, we can refuse certain coping strategies that might be suggested by the psychologist… As long as the psychologist is open to respect my religion, and not try to change me or try to attack my religion in an unconscious way, then it's fine.

Similar to Nawal's apprehension about the potential for one's religion to be "attacked" by a professional, some participants expressed concerns about mental health professionals being perceived as a "bad influence" in the Muslim community. Hiba (female, 44) noted that people often seek therapists of the same religion to avoid feeling "wrong" or alienated from their "family, culture, or community" due to suggestions that conflict with their values. Hiba added:

> Sometimes people literally say that they (WMHPs) are like the enemy. It's like they are going to take away kids, parents, or families. That's why it's very hard to convince someone that going to see a psychologist or psychiatrist is a good thing. And some people who do it [seeing a professional], do it in secret…it's very hard.

Inbar (female, 23) provided an example of a WMHP offering a coping strategy that felt inappropriate to her friend:

> After Bill 21 just passed, one of my friends was dealing with a lot of anxiety regarding the hijab because she'd been denied a job and had a couple of incidents of discrimination happened… she was in a really bad place so she went to talk to a psychologist and after a couple of sessions, she said that basically the psychologist came to a sort of conclusion that "maybe you should take your hijab off for some time and it'll help you to get back the strength"… The psychologist clearly had no understanding of how important the headscarf is for a Muslim woman. And if let's say it was a girl who wanted to take her hijab off, I can understand the psychologist supporting her in that, but she clearly did not understand the values of my friend who wanted to continue wearing her hijab but just feel safe while doing it.

Perceived Lack of Openness

Some participants expressed concern about a perceived lack of openness among mental health professionals to improve their cultural competency through curiosity and research about their patients' cultural background. While acknowledging that it is normal for professionals to lack knowledge about cultural contexts they have not been exposed to, participants emphasized the importance of having a mental health professional who actively seeks to understand their patients' background by acknowledging cultural differences, asking relevant questions, and

engaging in ongoing research. Yashfa (female, 42), for example, expressed wanting her therapist to be open to "do some research on her background" in-between sessions. Oma (female, 24), too, explained her preference this way:

> I don't like when people say "Oh I don't look at your faith, I don't judge this, etc." That is what you need to do as a professional. What I want to hear is "Yes, I know you are different, I know you are feeling this". Very clear. It's like the thing about being colour blind…. The differences feel like the elephant in the room. Then, I feel uncomfortable bringing things up and wonder if they [professionals] will get offended. If they are open, then the trust starts to build.

In addition, participants noted lack of openness to incorporate holistic healing methods into Western models of therapy, as well as involving one's family in the therapeutic process. Participants highlighted that a patient cannot be separated from their cultural environment and family and a professional's openness to include such elements in the treatment can increase their willingness to seek professional services. Qadira (female, 41) described her preferences for a therapist:

> Someone who is willing to incorporate holistic methods… like checking my diet, psychological hygiene, my environment, and then giving recommendations…The qualities [I prefer for a WMHP] would be someone who is open to holistic methods that would work. Especially someone who would insist that my environment should be coached. If I live with my parents, for example, my therapist needs to talk to my parents and know what words to use.

Summary of The Findings

Three cultural domains were investigated using pile sorting and qualitative analyses: important values and practices, mental illness, and help-seeking preferences The summary of the main findings in each domain is provided in Figure 5.

By exploring the domain of important values and practices among Muslim participants, I was able to gain insights into the prototypes associated with being a 'good Muslim'. This study revealed that faith-related values, including the belief in God, were considered central to Muslim identity and served as the foundation upon which other values and practices were built. These values were utilized as a framework for interpreting various aspects of one's life, including making sense of MI and coping with the symptoms. Moreover, I found a strong association between faith-related values and perceived well-being among participants. In contrast to faith-related values, values related to economic aspirations, such as career achievements and financial gains, were deemed important but ranked lower in significance compared to other values. Additionally, my analysis uncovered a 'cultural tension' among participants regarding the inherent or secondary importance of economic aspirations. Some participants viewed these values as meaningful only insofar as they help to fulfill one's duties as a Muslim, while others emphasized their individual needs, such as financial security or personal achievements.

In the domain of mental illness, my investigation uncovered that participants distinguished between a range of causal concepts, including biological, social, environmental, familial, psychological, and spiritual. While the majority of participants agreed that various biological, social, and psychological concepts could contribute to the onset of MI, there were differences in perspectives regarding the role of spiritual concepts in this regard. Specifically, a contested view emerged regarding whether violations of core faith-related values, such as disbelief in God or infrequent prayer, could lead to MI.

Finally, within the domain of help-seeking preferences, I found that a variety of strategies were valued by participants, including spiritual coping, social support, self-help techniques, community support, and professional help. While participants expressed willingness and a positive attitude towards seeking professional help for mental health challenges, my qualitative analysis identified a pervasive theme of cultural mistrust towards WMHPs when considering professional help in Montreal. Participants referred to concerns about being misunderstood, judged, and stereotyped by WMHPs as main barriers for seeking professional help.

Overall, the findings suggest the presence of a comprehensive EM of MI among Arab Muslim participants, which encompasses various causal concepts. While many aspects of this EM overlap with the biopsychosocial models of MI endorsed in Western cultural contexts, what seems to differ are the underlying values and practices that form a distinct frame of reference. For example, participants may acknowledge the role of childhood trauma in contributing to MI while also attributing the association to divine will and believing that faith can offer protection from the potential negative effects of this cause.

Moreover, participants' views on help-seeking preferences were integrative, with religious coping strategies coexisting with other forms of help-seeking commonly endorsed in Western cultural contexts, such as self-care and seeking professional help. Despite common elements in EMs of Arab Muslims and Western professionals, participants expressed concerns that their frame of reference, informed by their religious values, would not be understood or respected by professionals. Instead, participants perceive the clinician-patient encounters in professional settings as a reflection of the larger society in which they face stigmatization and stereotyping. Furthermore, the results suggest the presence of a 'dual frame of reference' among

Arab Muslims, in which they continuously reflect on their own cultural models while also evaluating and contrasting them against those of WMHPs.

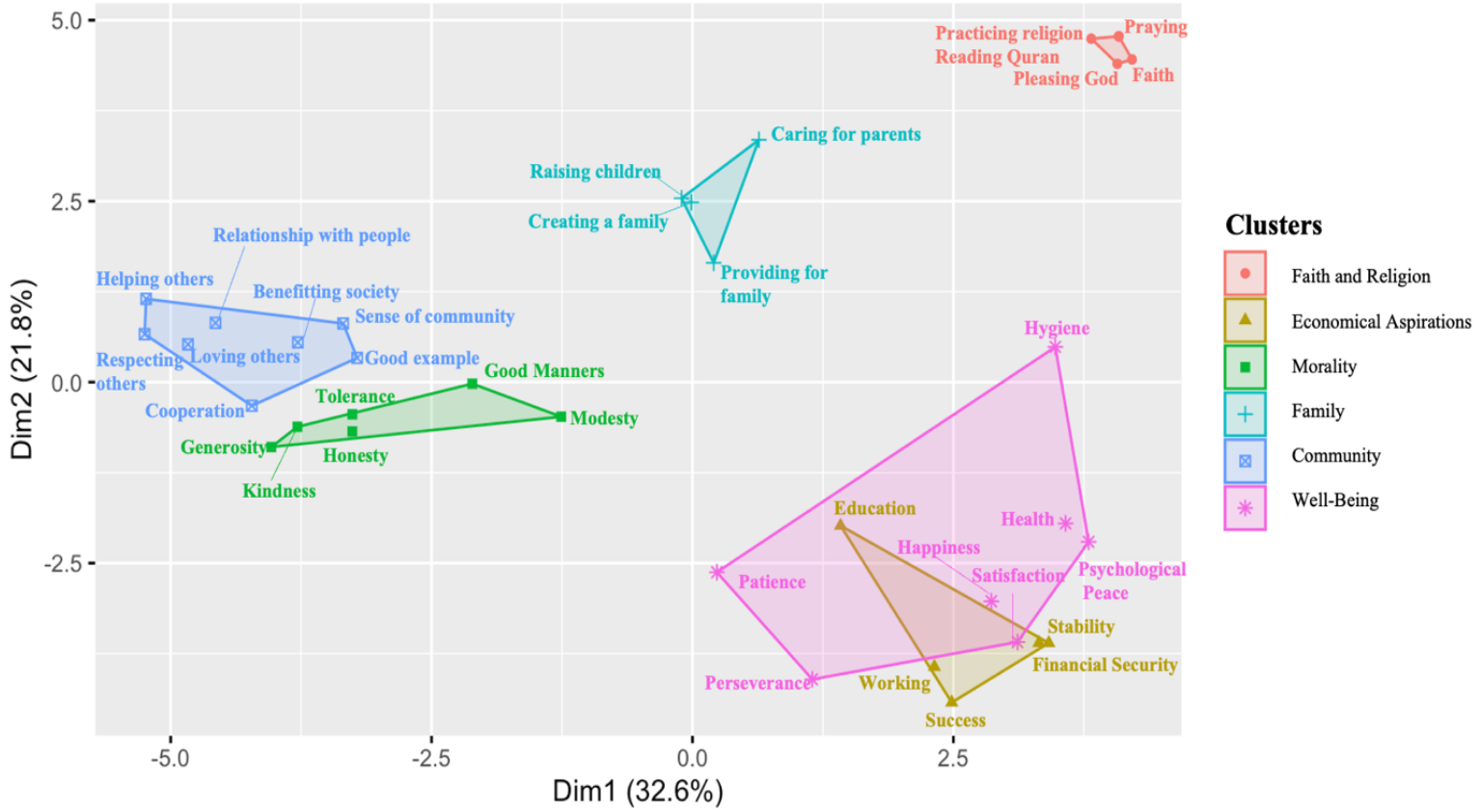

Figure 2. MDS of elements of the domain of important values and practices, with terms grouped based on a hierarchical cluster analysis.

Note. Percentage in parentheses is variance explained by each dimension.

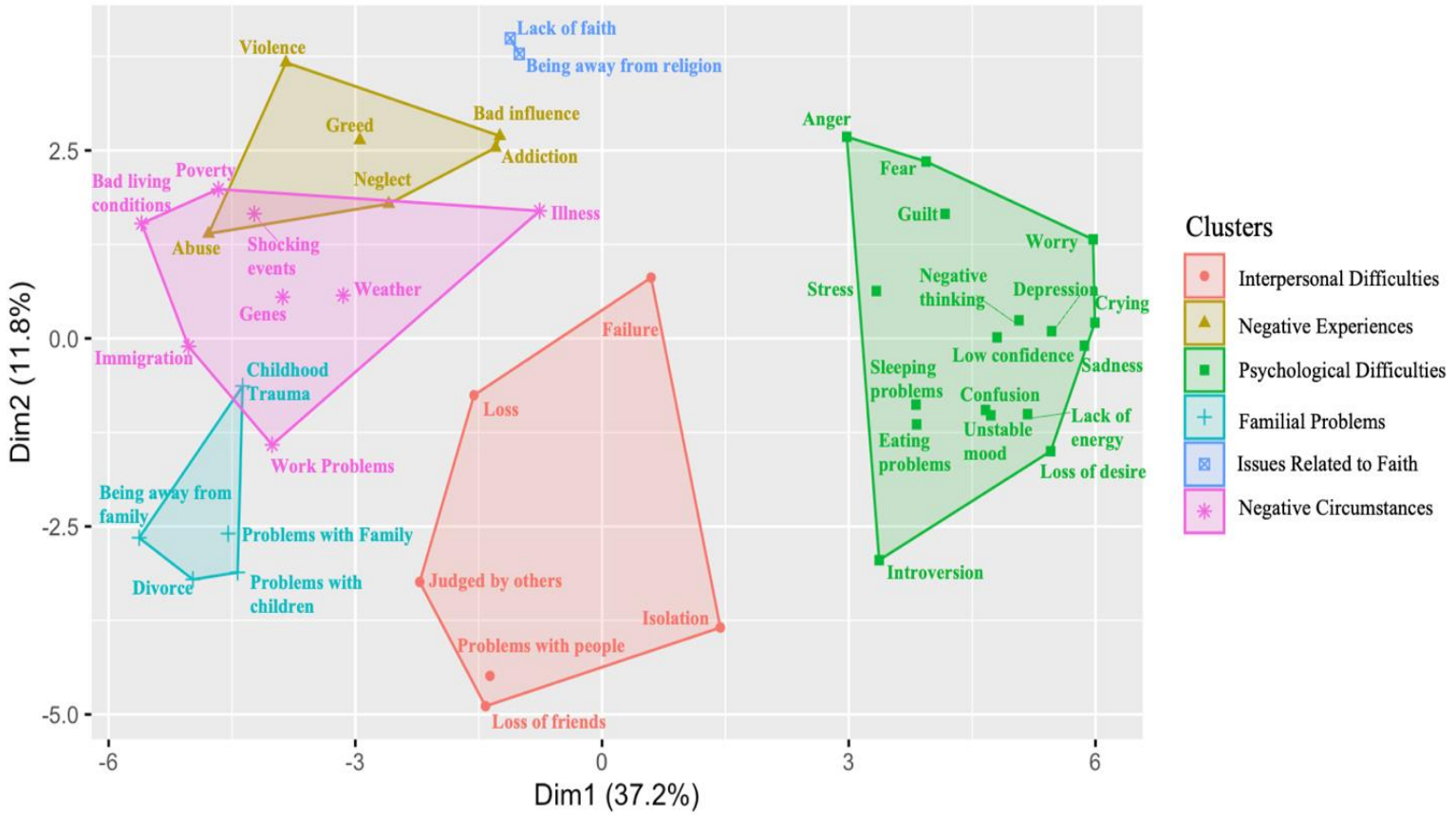

Figure 3. MDS of elements of the domain of mental illness, with terms grouped based on a hierarchical cluster analysis.

Note. Percentage in parentheses is variance explained by each dimension.

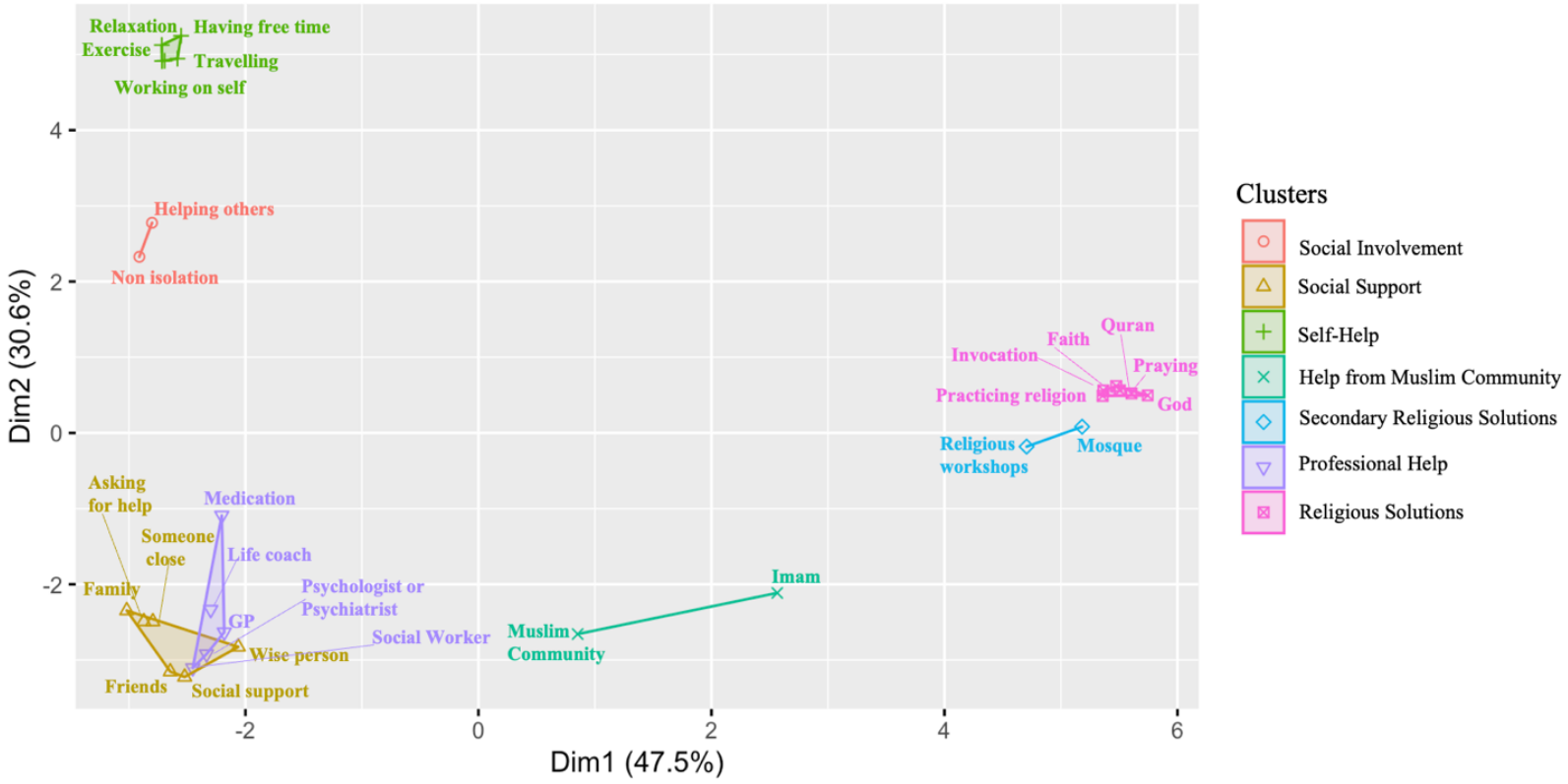

Figure 4. MDS of elements of the domain of help-seeking preferences, with terms grouped based on a hierarchical cluster analysis.

Note. Percentage in parentheses is variance explained by each dimension.

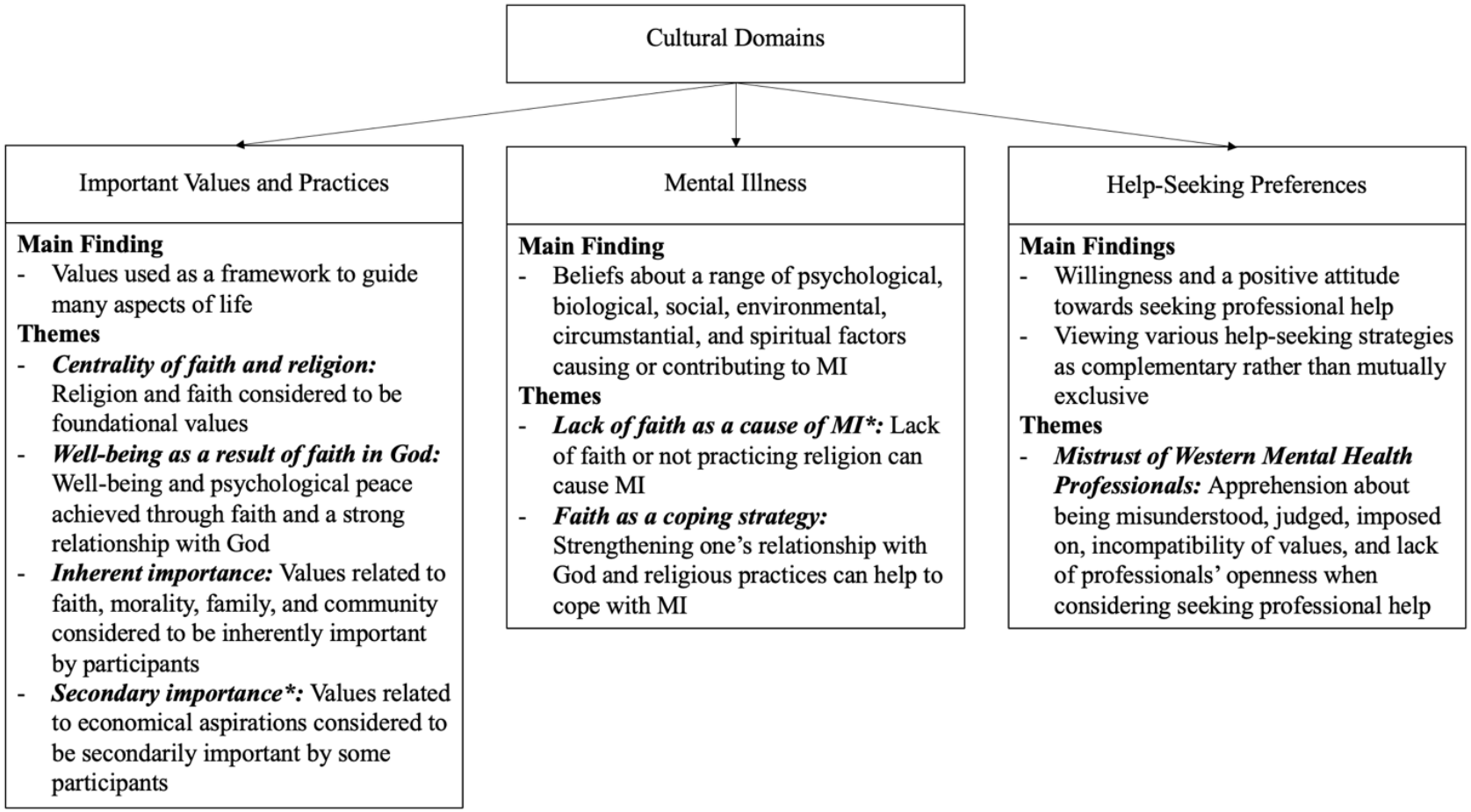

Figure 5. Summary of the main findings and themes within each domain.

Note: Items with an asterisk (*) represent contested themes.

Table 10. Sample characteristics of participants in the pile sorting study ($N = 40$).

Characteristics	M (SD) Or *n* (%)
Age in years	31.62 (9.87)
Female	32 (80)
Citizenship status	
Canadian citizen	31 (77.5)
Permanent resident	6 (15)
Refugee claimant	1 (2.5)
International student	2 (5)
Years in Canada	12.53 (9.98)
Country of birth	
Egypt	8 (20)
Algeria	5 (12.5)
Lebanon	5 (12.5)
Morocco	3 (7.5)
Tunisia	2 (5)
Syria	2 (5)
Qatar	1 (2.5)
Pakistan	1 (2.5)
Saudi Arabia	1 (2.5)
USA	1 (2.5)
Bahrain	1 (2.5)
Not indicated	10 (25)
Most proficient language	
Arabic	26 (65)
English	7 (17.5)
French	7 (17.5)
Second proficient language	
Arabic	5 (12.5)
English	22 (55)
French	12 (30)
Other	1 (2.5)
Third proficient language	
Arabic	6 (15)
English	10 (25)
French	16 (40)
Other languages or no third language	8 (20)
Relationship status	
Single	17 (42.5)
In a relationship/engaged	6 (15)
Married/cohabiting	15 (27.5)
Divorced/separated	2 (5)

Employment status	
Employed	27 (67.5)
Unemployed	13 (32.5)
Level of education completed	
High school	3 (7.5)
Pre-university college/CEGEP	13 (32.5)
Undergraduate	10 (25)
Graduate/post-graduate studies	14 (35)
Annual household income (Canadian Dollars)	
Less than $25,000	14 (35)
$25,001 to $50,000	8 (20)
$50,001 to $70,000	6 (15)
$75,001 to $100,000	5 (12.5)
More than $100,000	6 (15)
Not indicated	1 (2.5)

Table 11. Average ranking of important values and practices.

Item	Average Ranking
1. Faith in God	2.27
2. Pleasing God	6.25
3. Praying	7.47
4. Preserving and practicing religion	8.75
5. Caring for parents	9.12
6. Reading and learning the Quran	11.45
7. Good manners and morality	12.92
8. Psychological peace	12.97
9. Maintaining health	14.05
10. Honesty	15
11. Hygiene	15.4
12. Education and learning	17.1
13. Happiness	17.2
14. Satisfaction	18.37
15. Patience	18.7
16. Helping others	18.85
17. Respecting others	19.6
18. Tolerance and forgiving	20.15
19. Kindness and empathy	20.25
20. Loving others	21
21. Stability	21.02
22. Perseverance	21.22
23. Benefitting and contributing to the society	21.67
24. Working	22
25. Being a good example	22.4
26. Creating good relationships with people	22.55
27. Financial security	22.6
28. Modesty	22.65
29. Provide and responsibility for family	22.67
30. Generosity	22.82
31. Creating a family and marriage	23.5
32. Cooperation	23.82
33. Success	23.9
34. Raising children	24.12
35. Sense of community	26.05

Note. Items with lower average ranking indicate that participants listed those items earlier in their list, signifying higher saliency.

Bridging Exploratory Phases to Cultural Consensus Analysis

The exploratory and qualitative phases of this program of research allowed me to elicit salient elements of the cultural domains of interest and to have a prototypical understating of the culturally shared and contested models that Arab Muslims living in Montreal refer to when navigating MI and help-seeking. Moreover, I uncovered contextual elements that influence their EMs of MI and help-seeking preferences, such as the perceived lack of cultural safety with mental health professionals.

In Study 3, I aim to confirm these findings using a quantitative methodology. Specifically, I seek to establish the degree of agreement among participants within the domains of interest using cultural consensus analysis. Furthermore, I aim to statistically validate the culturally contested views using residual agreement analysist and assess whether the divergent perspectives predict different help-seeking preferences. Finally, I aim to examine the interaction between the endorsement of cultural values and practices, beliefs about the causes of MI, and contextual components in predicting help-seeking preferences.

CHAPTER 4

A Survey: Exploring The Relationship between Cultural Values, Beliefs About Causes of Mental Illness, and Help-Seeking Preferences Using Cultural Consensus Analysis

Addressing the mental health needs of ethnocultural minorities necessitates a nuanced understanding of a host of individual, cultural, and contextual elements that influence EMs and help-seeking preferences. While scholars have underscored the urgency of addressing health disparities (Napier et al., 2014), there is a lack of a comprehensive understanding of the mental health needs of ethnocultural minorities, particularly Arab Muslims. The literature exploring the underuse of mental health service among Muslims living in Western countries has identified several potential contributors. These contributors include: negative attitudes towards seeking professional help (Aloud & Rathur, 2009; Ciftci, Jones & Corrigan, 2012); religious or cultural beliefs about cause and nature of mental illness (Ali et al., 2022; Rassool, 2015); the use of informal-traditional resources such as seeking help from an imam (Aloud & Rathur, 2009; Haque & Keshavarzi, 2014; McLaughlin et al., 2022); practical barriers such as issues related to the cost of services, linguistic barriers, or unfamiliarly with available services (Ali et al., 2022; Aloud & Rathur, 2009); stigma about mental illness and treatment (Ciftci et al., 2012; Phillips & Lauterbach, 2017); and concerns about encountering discrimination from Western mental health professionals (Amer & Bagasra, 2013; Amri & Bemak, 2013; Khan et al., 2019; Rassool, 2015). The present literature, however, lacks an emic understanding of cultural components that impact service utilization, which makes it difficult to unpack the influence of culture and contextual elements on help-seeking behaviours. The overall goal of this study is to achieve a more nuanced understanding of Arab Muslims' help-seeking preferences using measures that are emically grounded in the insights gained through the preceding studies in this dissertation.

As stated in Chapter 1, one of the main goals of cognitive anthropology is to investigate cultural models from a 'cultural insider' perspective (Borgatti, 1994). Culture is conceptualized as an *intersubjectively shared knowledge* (de Munck, Dudley & Cardinale, 2002), and methodologies within this theoretical framework focus on reliably eliciting the elements of this knowledge and investigate its structure and distribution (Dengah et al., 2020). In line with this goal, free listing and pile sorting studies were conducted to elicit and explore the relationship between salient elements of the cultural models among Arab Muslims living in Montreal.

While free listing, pile sorting, and interview findings provided emic ways to capture cultural knowledge among Arab Muslims, they do not tell us whether the identified cultural models represent shared knowledge, rather than a collection of personal opinions. To address this issue, I use cultural consensus analysis (CCA; Romney, Weller, & Batchelder, 1986) to rigorously test whether there is enough agreement among participants to infer that the knowledge captured in previous studies represent a shared cultural understanding. Furthermore, I use Residual Agreement Analysis (RAA; Dressler, Balieiro, & Dos Santos, 2015), as an extension of CCA, to statistically validate the culturally contested views suggested by the previous study. Once the *sharedness* and *patterned divergence* of the findings are confirmed through these analyses, I use cultural consonance – the degree to which participants' beliefs and behaviours align with the shared model (Dressler, Balieiro, & Dos Santos, 1997) – to empirically investigate how cultural values and beliefs about MI impact help-seeking preferences.

Research Questions and Predictions

The current study has three primary objectives. First, I aim to statistically determine the presence of both a shared cultural model and intracultural variations. Second, I aim to examine the influence of cultural consonance with shared values on participants' beliefs about the causes

of mental illness and their help-seeking preferences. By adopting this approach, I aim to empirically link individuals to their culture and examine the role of both cultural and personal components in shaping EMs. Third, I intend to explore how cultural consonance interacts with contextual elements, such as mistrust of Western Mental Health Professionals (WMHPs), to influence help-seeking preferences. This approach will enable me to contextualize individuals' help-seeking behaviour within both their cultural and sociopolitical context.

In line with these objectives, here I provide an overview of the main research questions and corresponding predictions. First, using CCA, is there enough agreement among participants on the importance of identified values and practices to infer the presence of a culturally shared model of being an Arab Muslim? I hypothesize that a shared cultural model of Arab Muslim important values and practices will be evident in this study. Second, using RAA, can we statistically validate contested views about the causes of MI? Drawing from the results of the qualitative study, I predict that participants will vary on the causal role they attribute to biopsychosocial (BPS) versus spiritual causes of MI (e.g., violation of faith related values as causes of MI). Third, if the presence of shared cultural model is established via CCA, does adherence to different facets of this shared model (i.e., cultural consonance) have varied impact on help-seeking preferences? Specifically, does endorsement of faith-related values versus values related to economic aspirations differentially predict help-seeking preferences? I hypothesize that higher degrees of consonance with faith-related values will be positively correlated with use of religious coping strategies, seeking help from the Muslim community, and preferences for a professional who is familiar with Islamic values while being negatively associated with willingness to seek help from a WMHP. On the other hand, I predict that consonance with economic values will be positively correlated with willingness to seek help

from a WMHP and negatively correlated with use of religious coping strategies and seeking help from the Muslim community. Fourth, do beliefs about BPS versus value violation (VV) causes of MI differ by endorsement of faith-related values versus values associated with economic aspirations? I anticipate that endorsement of faith-related values will be positively linked to beliefs about VV causes of MI and negatively linked to BPS causes of MI, whereas endorsement of values related to economic aspirations will be positively linked to beliefs about BPS causes of MI and negatively linked to beliefs about VV causes of MI. Fifth, what are some of the variables associated with attitudes towards professional help for mental health problems? This research question is exploratory. Research on cultural minorities' attitudes towards professional help suggests that identification with the heritage culture and cultural beliefs about causes of mental illness are associated with less inclination toward seeking professional help (Aloud & Rathur, 2009; Ciftci, Jones & Corrigan, 2012). However, our qualitative analysis indicated a favourable attitude toward professional help and a lack of association between cultural EMs of MI and the desire to seek professional help. Therefore, no hypothesis was proposed for this research question. Aspects of cultural consonance, beliefs about causes of MI, as well as personal stigma and practical barriers will be used to explore associations with attitudes towards professional help in this study.

Given the exploratory nature of this study, I utilized the findings from the correlational analyses to develop further research questions and hypotheses that were then tested through regression analyses. Thus, my last research questions were focused on investigating variables that predict willingness to seek professional help. The findings of the preceding studies suggest that beyond general attitudes toward professional help, the cultural identity of the professional can play a determining role in shaping willingness to seek professional help. Additionally, the

compatibility of values and beliefs about causes of MI between the patient and the professional is a determining contributor to the clinician-patient relationship (Banish et al., 2011). To investigate these variables, participants will be explicitly asked about their preferences to seek help from a *Western* or *Islamically-oriented* professional. Cultural consonance and beliefs about causes of MI will be examined to determine their influence on willingness to seek help from a WMHP or an Islamically-oriented professional. It is possible that values related to economic aspirations may be more aligned with Western value systems that emphasize personal achievement and success (D'Andrade, 2005; Mizelle, 2015), whereas faith-related values may be more compatible with Islamically-oriented professionals. Moreover, BPS causes of MI may be more aligned with Western and secular models of treatment (Pilgrim, 2002), whereas VV causes may be inconsistent with Western psychotherapy models. Additionally, as mistrust of WMHPs was highlighted in the previous study, this variable will be explored beyond issues related to compatibility of values and causal beliefs.

I will test four hypotheses in this regard. First, I hypothesize that after controlling for demographic variables, personal stigma, attitudes toward seeking professional help, and practical barriers, cultural consonance with faith-related values and beliefs about VV causes of mental illness together will predict a preference for an Islamically-oriented professional. Second, I predict that after controlling for demographic variables, personal stigma, attitudes toward seeking professional help, and practical barriers, cultural consonance with values related to economic aspirations and beliefs about BPS causes of mental illness together will predict a higher willingness to seek help from a WMHP. Third, I hypothesize that higher degrees of cultural mistrust will predict lower willingness to seek help from a WMHP and conversely, higher willingness to seek help from Islamically-oriented professional over and beyond

demographic variables, personal stigma, attitudes toward seeking professional help, and practical barriers, beliefs about causes of mental illness. Lastly, I hypothesize that endorsement of faith-related values and beliefs about VV causes of MI together will predict greater inclination for religious coping strategies.

Method

Participants

Table 12 shows the demographic characteristics of 68 participants whose responses were included in the study after data screening (see Appendix A for details of data screening). The majority of participants (86.8%) identified as female, and participants' age ranged from 19 to 61 with an average age of 32.06 (*SD* = 9.64). Participants greatly varied in terms of the length of residence in Canada, ranging from 6 months to 38 years and 5 months, with an average length of 11.35 years (*SD* = 9.77). Participants varied in terms of country of birth as well as previously taking up residence in a range of Arab and non-Arab countries. In addition, participants reported various ranges of annual household income (ranging from less than $25,000 to more than $100,000 CAD) and education level (ranging from a high school diploma to a graduate degree).

Recruitment

After receiving approval from the Concordia University Human Research Ethics Committee, this study was conducted between June to December 2020. The recruitment strategy for the present study shifted to online advertisement due to overlap with the COVID-19 global pandemic preventing us from in-person visits. As such, all participants were recruited using a flyer circulated on various social media platforms (e.g., Facebook, Instagram, and Kijiji, WhatsApp). Recruiting from the community was prioritized and snow-ball sampling was used to obtain an adequate sample size. The obtained sample size was adequate based on a priori power

analyses conducted with G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) with the following parameters: $f^2 = 0.15$; $\alpha = .05$; $1-\beta = .80$. Medium effect size was used in determining the sample size as previous estimates are not available in the literature.

Procedure

Due to the COVID-19 pandemic, an online platform (i.e., Checkbox) was used in the present study. Interested participants contacted me by email. Participants were provided with a link to an online survey with the choice to complete the survey in English or Arabic. Upon completion of the online questionnaire, participants were compensated with $10.

Fifty-one participants completed the online survey in English and 17 participants completed the Arabic version. Independent sample *t*-tests were conducted to investigate potential differences on the dependent variables between participants who completed the Arabic versus the English versions. There were no significant differences on willingness to seek help from a Western professional, $t(66) = 0.534$, $p = .59$, or preferences for a professional who is aware of Islamic values, $t(66) = 1.647$, $p = .104$, between participants in the two groups. However, participants who had completed the survey in Arabic had a significantly higher preference for religious coping strategies, $t(66) = 2.109$, $p = .019$. Language was controlled for in all regression analyses.

Measures

Item Development

The survey utilized a combination of validated measures and measures created by the research team. Adopting an emic approach, I employed an iterative process that incorporated existing literature and insights from previous studies to inform the survey items and subscales. Furthermore, I incorporated the results of the cluster analysis and contested views from the

previous study to create subscales. To ensure cultural relevance and linguistic accuracy, survey items were initially developed by me, then reviewed and revised by cultural insiders within the research team, and finally evaluated by members of the Culture, Health, and Personality Laboratory (see Appendix B for the measures used in this study). A similar collaborative and iterative approach to translation (Douglas, & Craig, 2007) described in previous chapters was used to translate the items.

Demographic Information

Participants completed a brief questionnaire screening for inclusion criteria and inquiring information regarding their age, gender, relationship status, education level, employment, household income, language, place of birth, ethnicity, citizenship status, and length of residence in Canada.

Cultural Consensus

Using the free listing technique in the previous study, elements of the domain of important values and practices were collected. To empirically test if there is a consensus among Arab Muslims on the importance of these elements, a 35-item measure reflecting these elements was developed. To create this measure, each previously identified culturally significant theme was turned into a statement (e.g., *"People in the Muslim community believe that it is important to have faith in God").* The instructions given to participants emphasized the importance of rating the statements based on their perceptions of the Arab Muslim community, rather than their own personal beliefs or practices. Participants ranked the items on a scale from 1 (*not at all true*) to 4 (*very true*). Following Dressler (2005) and to reduce the likelihood of an acquiescent response pattern, the phrasing of the statements was varied such that some statements were

intended to be descriptive of, and others discrepant from, the anticipated consensus beliefs held in the Arab Muslim community.

Cultural Consonance

A 35-item measure was developed to assess the degree to which participants personally endorse or adhere to the culturally shared values and practices. The items in this measure reflect the 35 items in the cultural consensus measure; however, participants were instructed to rate the statements based on their *personal* beliefs and practices. Following Dressler (2005), I varied the wording of some of the statements to prevent participants from responding affirmatively and without thinking. For example, the statement "*It is important for me to be moral*", changed to "*Sometimes I put my personal interests before being moral".* Some of the items were also reverse coded to prevent participants from developing a habitual response pattern of agreeing with the statements. Participants ranked the items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). After accounting for reverse-coded items, the ratings for each statement were summed up for a total score of cultural consonance; with higher scores indicating greater match between personally endorsed values and those shared within the community. Cronbach alpha for the English and Arabic versions of this measure were .89 and .70, respectively.

The cultural consonance scale was further broken down into subscales based on the previous cluster analysis as well as the qualitative analysis. The subscales included faith (e.g., "*My faith in God is the most important aspect of my identity*"), family (e.g., "*I believe that having children is an important goal to pursue*"), economic aspirations (e.g., *"Pursuing financial security is an important goal in my life"*), community (e.g., *"I believe that I benefit and contribute to the society I live in"*), well-being (e.g., *"Pursuing happiness is an important goal in my life*"), and morality (e.g., *"Sometimes I put my personal interests before being moral"*).

Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH- SF)

Intentions for professional help-seeking was measured using a modified version of the ATSPPH (Fischer & Farina, 1995). The ATSPPH- SF is a 10-item revision of the original 29-item measure (Fischer & Turner, 1970) designed to measure participants' willingness toward seeking professional psychological help for mental health difficulties (e.g., "*If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy*"). The original measure provides a 4-point rating scale of 0 to 3; however, the rating scale was adapted to range from 1 to 7 to improve consistency along the entire survey. As such, participants rated each statement from 1 (*strongly disagree*) to 7 (*strongly agree*). After reverse coding five items, ratings were summed up for a total score with higher scores reflecting higher inclination toward seeking professional services. Estimates of internal consistency ($\alpha = .84$) and 1-month test-retest reliability ($r = .80$) have been reported for ATSPPH- SF (Fischer & Farina, 1995). The Arabic version of ATSPPH- SF, translated by Al-Darmaki (2003), was also used in this study. The Arabic version has reported internal consistency estimate of .78 (Al-Darmaki, 2003; Al-Darmaki, 2011). In the present study the Cronbach alpha for the English and Arabic versions were .84 and .79, respectively. In both versions of the survey, the wording of statements was adapted to refer to general professional help instead of focusing on a type of professional, such as a *psychologist*, or a type of professional service, such as *psychotherapy*. This adaptation was made to reliably assess willingness to seek professional services beyond possible preferences for types of professionals (e.g., psychologists, counsellors, psychiatrists, social workers, or physicians).

Discrimination-Devaluation Scale (D-D revised)

To assess personal stigma (i.e., participants' own stigmatizing attitudes about mental health treatment), a three-item scale developed by Eisenberg, Downs, Golberstein, and Zivin (2009) was used. A 6-point rating scale is used in the original scale. However, the rating scale was adapted to range from 1 to 7 to improve consistency along the entire survey. Participants rated each statement (e.g., "*I would willingly accept someone who has received mental health treatment as a close friend*") from 1 (*strongly disagree*) to 7 (*strongly agree*). After reverse coding one item, ratings were summed up for a total score with higher scores indicating higher stigma about mental health treatment. This scale is an adaptation of the well-validated Discrimination-Devaluation Scale developed by Link and colleagues (2001) and itself has demonstrated an internal consistency of .78 in a national analysis of stigma and help-seeking (Eisenberg et al., 2009). In the present study the Cronbach alpha for the English and Arabic versions were .68 and .61, respectively.

Practical Barriers to Seeking Professional Help

This measure was developed to assess potential practical barriers preventing participants from seeking professional help. Eight statements were developed based on some of the most highlighted practical barriers in the literature (e.g., Ali et al., 2022; Aloud & Rathur, 2009; Derr, 2016) such as unfamiliarity with the services, financial costs, difficulties with language, problems with transportation, and long wait times (e.g., *"Limited language proficiencies in English would prevent me from seeing a mental health professional"*). Participants rated their agreement with each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) and the ratings were summed for a total score with higher scores indicating more difficulties with practical barriers. In the present study, the Cronbach alpha for the English version was .69 and .73 for the Arabic version.

Help-Seeking Preferences

An 18-item measure was developed based on the most frequently mentioned help-seeking strategies in the preceding studies to assess participants' help-seeking preferences. I aimed to include at least a few items from each of the categories that emerged from the cluster analysis. Participants were instructed to rate how helpful they think each help-seeking item would be to them if they were experiencing mental illness on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). This measure was then broken down into four subscales based on the clusters emerged in the previous study. Each cluster – which in turn was turned into a total score by adding up the ratings for each item in that cluster – was used as a different variable in the study. The five clusters included religious coping (e.g., *praying*, *reading the Quran*, *strengthening one's faith*), social support (e.g., *talking to friends*, *talking to family members*), seeking help from the religious community (e.g., *talking to an imam*, *seeking help from the Muslim community*), and self-help (e.g., *exercise*, *relaxation*). Considering that the result of the qualitative study indicated the presence of a cultural apprehension about seeing a WMHP beyond considerations about general professional help, this item was also used separately as variable on its own. In the survey, a WMHP was defined as any mental health professional including psychologists, counsellors, psychiatrists, social workers, and therapists.

Preferences for a Mental Health Professional

Considering that many participants in the previous study indicated religion-related preferences for a mental health professional, I developed three statements reflecting these preferences. Participants rated each statement (e.g., "*I prefer a mental health professional who is familiar with Islam*") from 1 (*strongly disagree*) to 7 (*strongly agree*). Ratings were summed up for a total score with higher scores reflecting higher preference for a professional who is

knowledgeable about Islam. Cronbach alpha for the English and Arabic versions were .95 and .81, respectively.

Beliefs About Causes of Mental Illness

A 26-item measure was developed to assess participants' views on possible causes of MI. Items included in this measure were developed based on some of the causes or contributors that were most frequently mentioned in the preceding studies in the domain of mental illness. Recall that participants categorized contributors to MI into a range of biological, social, psychological, and spiritual elements. In addition, participants disagreed on whether violation of some spiritual values can cause mental illness. As such, the present measure was broken down into two subscales: one reflecting BPS (18 items, e.g., "*Negative thinking can cause mental illness*") and one reflecting VV causes of MI (8 items, e.g., "*Not praying regularly can cause mental illness*"). Participants rated the degree to which they believe each item can contribute to the development of MI from 1 (*strongly disagree*) to 7 (*strongly agree*). The ratings for each statement were summed up for a total score in each category; with higher scores indicating stronger beliefs about the influence of BPS or VV causes on development of MI. Cronbach alpha for the English and Arabic versions of the BPS subscale were .90 and .85, respectively. Cronbach alpha for the English version of the VV subscale was .90 and .80 for the Arabic version.

Cultural Mistrust Scale

A 30-item scale was developed to measure participants' mistrust of WMHPs; a salient theme discussed in the previous study. The statements reflected participants' narratives as closely as possible (e.g., "*WMHPs make Muslim patients feel "weird*""; "*WMHPs judge the way Muslim parents raise their kids*"). In addition, statements represented all the sub-themes emerged in the qualitative analysis including *apprehension about not feeling understood, apprehension*

about being judged, *perceived incompatibility of values*, *lack of openness*, and *apprehension about being imposed upon*. Participants rated each statement based on the degree to which they think each statement is true about WMHPs on a scale from 1 (*not true at all*) to 4 (*very true).* After accounting for reverse-coded items, the ratings for each statement were summed up for a total score of mistrust of WMHPs; with higher scores indicating greater levels of mistrust. This scale had excellent internal consistency with the Cronbach alpha of .94 for both the English and Arabic versions.

Statistical Analyses

Cultural Consensus Analysis (CCA)

CCA was conducted using the *psych* package in R (Revelle, 2021) to test for the presence of a culturally shared model. In essence, CCA is a form of exploratory factor analysis that uses iterated principal component analysis to detect an underlying latent variable that can account for variation among participants (Weller, 2007). As recommended by Segalowitz et al. (2016) and to obtain more accurate estimates, a 5,000 bootstrapping resampling strategy was used, which involved repeated random selection of subsets of participants. The first factor in CCA, which is expected to explain most, but not all, of the variance, can be used to infer the presence of a shared cultural knowledge if the first to second eigenvalue ratio is greater than 3 (Weller, 2007). Loadings on the first factor reflect the degree to which a participants' responses correspond to the consensus, with higher coefficients indicating greater agreement between a participant's response and the estimated consensus. These loadings, ranging from -1 to 1, are referred to as *cultural competence*. When there is a shared cultural model, the average cultural competency score will be large and there will be none or a few negative cultural competence scores (Romney, Weller, & Batchelder 1986).

In addition to testing for the presence of shared cultural model, CCA can estimate a cultural 'answer key' by using the competence coefficients. Weller (2007) suggests estimating the answer key by multiplying each participant's ratings with their competence score before averaging ratings across all participants. In this way, a greater weight will be given to participants who possess higher cultural knowledge when determining the relative importance of the elements of a shared model.

Residual Agreement Analysis (RAA)

RAA was conducted to investigate intracultural variations within the models. When there is consensus, the first factor in CCA explains the majority of the variance. However, analysis of the second factor can determine if a group of participants' responses deviate from the aggregated model in a patterned way (Dressler, Balieiro, and Dos Santo's, 2015). Moreover, when there is no consensus, analysis of the second factor can help determining the presence of sub-groups of people that may be agreeing with parts but not all elements of a cultural model.

To analyze the residual variance on the second factor in this study, I used a method proposed by Dressler et al. (2015). In this method, the average rating for each item is subtracted from each participant's item rating, creating a deviation from consensus score. When averaged across participants, the deviation scores for each item represent the variance unaccounted for by the first factor. The residual agreement coefficients are not directly interpretable; however, they can be investigated to see if they correlate with any of the demographic variables or be used to divide participants into groups. The identified groups can then be compared to explore if their ratings deviate from the consensus in a meaningful way.

Regression Analyses

Using SPSS (Version 28), hierarchical multiple linear regression analyses were used to determine the impact of variables of interest on two continuous dependent variables (i.e., religious coping strategies and preferences for professional who is aware of Islamic values). Multiple regression analysis was determined to be useful to explore the research questions as this analysis helps to measure the relative effect of each variable on outcome while controlling for the other variables (Jeong & Jung, 2016). Furthermore, a hierarchical ordinal logistic regression was used to disentangle the relative importance of variables of interest in predicting an ordinal dependent variable (i.e., Willingness to seek help from a WMHP, ranging from 1 to 7; Warner, 2008).

Results

CCA in The Domain of Important Values and Practices

CCA was used to test for the presence of a shared cultural model in the domain of important values and practices. CCA revealed that the first factor accounted for 52% of the variance. The eigenvalue for the first and second factors were 5.24 and 0.74, respectively, with an eigenvalue ratio of 7.06. This ratio indicates that the first factor explained approximately 7 times the variance of the second factor and is well beyond the cut-off ratio of 3. The mean cultural competency score was .69 (*SD* = .22) and only one negative value was detected. The results indicate the presence of a substantial agreement among participants. Therefore, it can be inferred that participants are drawing from a shared cultural knowledge about the values and practices that are central for being a Muslim. Table 13 provides the culturally correct answer key by providing the weighted average rating for each item.

A series of tests were conducted to explore if competence scores were related to any of the demographic variables. An independent samples *t*-test showed no significant difference in

cultural competency scores when comparing males and females. Correlational analyses also revealed no significant associations between competency scores, age, and length of stay in Canada.

RAA in The Domain of Important Values and Practices

Although CCA supported the presence of a shared model, I used RAA to see if the variance on the second factor can statistically reflect the cultural variations identified in the pile sorting study. Specifically, is there a subgroup of participants who rated economic aspirations to be more important? Conversely, is there a subgroup of participants that rated faith-related values to be more important?

The mean residual agreement coefficient was .06 (*SD* = .26) ranging from -.35 to .72. An independent samples t-test showed no significant difference in residual agreement coefficients when comparing males and females. Correlational analyses also revealed no significant associations between residual coefficients, age, and length of stay in Canada. Twenty participants with the highest and 20 participants with the lowest residual agreement coefficients were selected for RAA to examine the pattern of variation. Figure 6 shows the mean deviation scores from the shared model for participants with high versus low coefficients. As depicted, there is a strong negative correlation between the mean deviation scores between the two groups (r = -.91, p <.001) such that items rated as the most important by the Group 1 are rated as the least important by Group 2. Items closer to the 0,0 coordinates are those with minimal deviation from the shared model by both groups.

As shown in Figure 6, values such as “faith in God” and “fasting in the month of Ramadan” are very close to the 0,0 coordinates indicating an agreement between the groups on the importance of these values. However, two values related to economic aspirations (i.e.,

"material success" and "financial security") were rated as more important by the group with high residual coefficients compared to the group with low residual coefficients. Conversely, values related to daily practice of religion (e.g., practicing what is taught in the Quran), and finding happiness and satisfaction through remembering God (e.g., "intending to please God daily") were among the values rated as more important by the group with high residual coefficients compared to the group with low residual coefficients. The results of the RAA support the findings of the qualitative analysis pointing to a contested view on the importance of values related to economic aspirations.

Cultural Consonance with the Elements of the Shared Model

Since the hypothesis about the existence of a shared cultural model in the domain of important values and practices is supported, cultural consonance can be reliably measured. Following Dressler et al. (2005), each participant's response was multiplied by the weighted average for each item so that a greater weight would be given to the elements of the cultural model that have been rated as more important by the aggregate. As mentioned previously, cultural consonance was further broken down into subscales based on the results of the cluster analysis. The subscales included consonance with values related to faith, family, economic aspirations, community, well-being, and morality. The consonance scores for the faith-related and economic values were adjusted to reflect the results of the RAA. Specifically, the originally 4-item subscale for economic values was reduced to a 2-item measure including "material success" and "financial security", and the originally 12-item subscale for faith-related values was reduced to a 9-item measure as the following culturally agreed-upon items were excluded: "faith in God", "fasting", and "remembering God". As maintaining more items in subscales increases reliability of the measure, I prioritized using the original subscales (i.e., those based on the

cluster analysis) in regression analyses. However, I will report whether using the original versus adjusted subscales affects the analyses differently.

CCA and RAA in The Domain of Mental Illness

CCA and RAA were used to investigate variation in beliefs about causes of MI. CCA revealed that the first factor accounted for only 38% of the variance. The ratio of the first to second factor eigenvalue was 0.3, which is considerably below the suggested cut-off. The mean cultural competency score was .38 (*SD* = .27) and many negative values were detected. The results indicate the absence of a culturally shared model for causes of MI. The absence of a culturally shared model in this domain is not surprising given that participants were instructed to indicate their personal beliefs about causes of MI, rather than their knowledge of the common beliefs in their community. Nevertheless, conducting CCA followed by RAA can help to examine whether the variance on the second factor can statistically reflect the cultural variation discovered in the previous study. Specifically, is there a subgroup of participants who believe BPS causes are more influential in development of MI? Conversely, is there a subgroup of participants who believe VV causes are more influential in development of MI?

The mean residual agreement coefficient in the domain of MI was .09 (*SD* = .27) ranging from -.14 to .38. An independent samples *t*-test showed no significant difference in coefficients when comparing males and females. Correlational analyses also revealed no significant associations between the coefficients, age, and length of stay in Canada. Twenty participants with the highest and 20 participants with the lowest residual agreement coefficients were selected for RAA to examine the pattern of variation.

Figure 7 shows the mean deviation scores from the shared model for participants with high versus low residual agreement coefficients in the domain of mental illness. As depicted,

there is a strong negative correlation between the mean deviation scores between the two groups (r = -.94, p <.001) such that causes rated as the most influential in developing MI by the group with high residual coefficients are rated as the least influential by the group with low residual coefficients and vice versa. The results of the RAA support the presence of a patterned agreement among the sub-groups. As shown in Figure 7, all BPS causes of mental illness appear on the upper left side of the figure while all VV items, except "a test of endurance from God", appear on the bottom right of the figure. This pattern of results make sense as "a test of endurance from God", while spiritual, is not a violation of a value. This item was therefore removed from the VV subscale. Moreover, Figure 7 shows that there are fewer disagreements between the two groups about the BPS causes of MI as most of the items cluster closer to the 0,0 coordinates relative to the VV causes of MI that appear to deviate from the mean more considerably. This deviation pattern supports the findings of the qualitative analysis pointing to a general agreement on the causal role of BPS causes of MI and the presence of a cultural tension among participants about whether violation of important Islamic values can cause MI.

Correlational Analyses

Correlational analyses were used to investigate associations between cultural consonance subscales, beliefs about causes of MI, personal stigma, practical barriers, and help-seeking related variables. Table 14 shows the results of the correlation analyses. Descriptive statistics for all relevant measures are included in Table 15.

As shown in Table 14, higher cultural consonance with faith-related values was significantly associated with higher preference for religious coping strategies (r = .53, p < .001, higher preference for social support (r = .29, p = .016), higher preference for seeking help from the Muslim community (r = .36, p = .002), and higher preferences for a mental health

professional who is aware of Islamic values ($r = .30$, $p = .012$). The same pattern of correlation was also observed when using the adjusted cultural consonance with faith-related values.

Higher cultural consonance with family-related values was significantly associated with higher endorsement of VV causes of MI ($r = .29$, $p = .013$), higher preference for religious coping strategies ($r = .25$, $p = .033$), higher preference for seeking help from the Muslim community ($r = .25$, $p = .034$), and higher preferences for a mental health professional who is aware of Islamic values ($r = .30$, $p = .012$).

Higher cultural consonance with values related to well-being was only significantly associated with higher preference for getting help from the social circle ($r = .30$, $p = .011$). Higher cultural consonance with community-related values was significantly associated with higher preference for religious coping strategies ($r = .28$, $p = .019$), and higher preference for seeking help from the Muslim community ($r = .24$, $p = .042$).

Cultural consonance with morality-related values was not associated with any help-seeking preferences or beliefs about causes of MI. However, higher cultural consonance with economic related values was significantly associated with higher endorsement of BPS causes of MI ($r = .35$, $p = .003$), and higher willingness to see a WMHP ($r = .31$, $p = .009$). The same pattern of correlation was also observed when using the adjusted cultural consonance with economic related values.

Higher endorsement of BPS causes of MI was significantly associated with higher preferences for self-help strategies ($r = .28$, $p = .019$) as well as higher willingness to see a WMHP ($r = .32$, $p = .007$). Higher endorsement of VV causes of MI was significantly associated with higher preferences for religious coping strategies ($r = .41$, $p < .001$), higher preference for self-help strategies ($r = .26$, $p = .032$), higher preference for seeking help from the Muslim

community (r = .28, p = .019), and higher preferences for a mental health professional who is aware of Islamic values (r = .37, p = .001). In addition, none of the consonance subscales or beliefs about causes of MI were significantly associated with mistrust of WMHPs.

Higher level of personal stigma was significantly associated with less favourable ATSPPH for mental health difficulties (r = -.31, p = .009) but not associated with any other variable of interest. Practical barriers were not associated with any help-seeking preferences. More favourable ATSPPH was significantly associated with higher willingness to seek help from a WMHP (r = .25, p = .038).

Overall, the correlational results partially support our hypotheses. As predicted, higher degrees of consonance with faith-related values were associated with higher preferences for religious coping strategies, seeking help from the Muslim community, and preferences for a mental health professional who is aware of Islamic values. However, consonance with faith-related values did not have a significant association with willingness to see a WMHP. Moreover, consonance with economic values was positively correlated with willingness to seek help from a WMHP but not significantly correlated with use of religious coping strategies and seeking help from the Muslim community. The hypothesis that endorsement of faith-related values is associated with beliefs about VV causes of MI whereas endorsement of values related to economic aspirations is associated with beliefs about BPS causes of MI is only partially supported as endorsement of faith-related values did not correlate with beliefs about VV causes of MI.

Furthermore, correlational results indicate that contrary to what has been suggested in the literature, cultural values, and beliefs about causes of MI do not predict general ATSPPH. However, it may be important to explore the role of cultural characteristics of the mental health

professional in predicting willingness to seek help. The results may be consistent with the qualitative analysis conducted in the pile sorting study suggesting that our sample had an overall favourable attitude towards seeking professional help but expressed apprehension about seeking help from mental health professionals whose cultural values and explanatory models of MI may be different from theirs (i.e., WMHPs).

Regression Analyses

Hierarchical multiple regression analysis was used to test the hypothesis that endorsement of faith-related values and beliefs about VV causes of MI together predict higher preferences for faith-based help seeking strategies after controlling for demographic variables. Age, gender, language of the survey, and length of stay in Canada were entered at the step 1 of the regression. Consonance with faith-related values and beliefs about VV causes of MI were entered at step 2 of the regression. Table 16 shows the results of the regression. Step 1 did not explain a significant amount of variance and none of the demographic variables were significant predictors of preferences for faith-based help seeking strategies. Step 2 accounted for a significantly increased amount of variance, $\Delta R^2 = .44$, $p < .001$. The final model accounted for 45.60% of the variance, $F(6,60) = 10.23$, $p < .001$, and both higher consonance with faith-related values ($\beta = -.57$, $p < .001$) and beliefs about VV causes of MI ($\beta = -.27$, $p = .007$) significantly predicted higher preferences for religious coping strategies. Same pattern of results was observed when using the adjusted faith-related consonance score that reflected the results of the intracultural variation uncovered by RAA (Table 17). The results support the hypothesis that spiritual coping strategies, such as praying or asking God for help, are used by those who highly endorse faith-related cultural values and those who attribute MI to violation of values.

A second hierarchical multiple regression analysis was used to test the hypothesis that beyond demographic variables, personal stigma, practical barriers, and ATSPPH, cultural consonance with faith-related values and beliefs about VV causes of MI together predict preference for a mental health professional who is aware of Islamic values. Moreover, I hypothesized that this preference can be predicted by mistrust of WMHPs beyond all the other predictors. Age, gender, language of the survey, length of stay in Canada, personal stigma, ATSPPH, and practical barriers were entered at the step 1 of the regression. Consonance with faith-related values and beliefs about VV causes of MI were entered at step 2 and mistrust of WMHPs was entered at step 3. Table 18 shows the results of the regression. Step 1 did not explain a significant amount of variance and none of the variables in step 1 were significant predictors of preferences for a professional who is aware of Islamic values. Step 2 accounted for significantly increased amount of variance, $\Delta R^2 = .16$, $p = .002$ with beliefs about VV causes of MI significantly predicting preference for a professional who is aware of Islamic values ($\beta = -.28$, $p = .022$) but consonance with faith-related values did not achieve conventional level of significance ($\beta = -.26$, $p = .069$). Step 3 accounted for a smaller but significantly increased amount of variance, $\Delta R^2 = .04$, $p = .038$. The final model accounted for 23.70% of the variance, $F(10,57) = 3.08$, $p < .038$, with both higher consonance with faith-related values ($\beta = -.29$, $p = .042$) and higher mistrust of WMHPs ($\beta = -.23$, $p = .038$) predicting greater preference for a professional who is aware of Islamic values.

Table 19 shows the results of the regression using the adjusted scale. When using the adjusted faith-related consonance in the regression model, the overall amount of variance explained in the final model remained similar (22.70%), however, along with mistrust of WMHPs, beliefs in VV causes of MI, but not faith-related consonance, predicted preference for a

professional who is aware of Islamic values. Overall, results partially support our hypothesis, such that beliefs about VV causes of MI, but not consonance with faith-related values, predict preferences for a religiously oriented mental health professional. However, consonance with faith-related values only predicts outcome when mistrust of WMHPs is accounted for. Moreover, mistrust of WMHPs seems to predict preference for a religiously oriented mental health professional over and beyond the match between explanatory models of MI. The amount of variance explained in this model was small. One possibility may be that the outcome variable in this analysis may be too hypothetical and not reflecting a viable choice of help-seeking for participants in real life. In other words, it is likely that Arab Muslims living in Montreal are not often faced with having to make a choice between seeing a *Muslim* versus a *Western* professional in their day-to-day life as cultural minorities are not often sufficiently represented in professional settings.

A hierarchical ordinal logistic regression was used to test the hypothesis that beyond general attitudes towards seeking professional help for mental health difficulties, the match between the cultural values and believed causes of MI predict willingness to seek help from a WMHP. Moreover, over and beyond general attitudes and the cultural match between a professional and a patient, mistrust of WMHP predicts decreased willingness to see a WMHPs. Age, gender, language of the survey, length of stay in Canada, personal stigma, ATSPPH and practical barriers were entered at the step 1. Consonance with values related to economic aspirations and beliefs about BPS causes of MI were entered at step 2 and mistrust of WMHPs was entered at step 3 of the regression. Table 20 shows the results of the ordinal regression. The first model did not explain a significant amount of variance, $\chi^2\,(7) = 12.78$, $p = .077$. In the first model, older participants had a lower likelihood of seeking help from a WMHP (*OR* = 0.93, 95%

CI = 0.88–0.98, p = .019) than younger ones did and ATSPPH positively predicted willingness to seek help from a WMHP (*OR* = 1.99, 95% CI = 1.25–3.17, p = .003). The second model explained a significantly increased amount of variance (Nagelkerke ΔR^2 = .14, χ^2_{ch} (2) = 12.21, p < .01. In the second model, age (*OR* = 0.93, 95% CI = 0.88–0.98, p = .007) and ATSPPH (*OR* = 1.91, 95% CI = 1.20–3.04, p = .007) continued to predict willingness to seek help from a WMHP. After controlling for the above variables, both consonance with economic values (*OR* = 1.28, 95% CI = 1.02–1.61, p = .036) and beliefs about BPS causes of MI (*OR* = 2.13, 95% CI = 1.13–4.00, p = .020) positively predicted willingness to seek help from a WMHP. The final model explained 48.60% of variance and accounted for significantly increased amount of variance compared to the second model (Nagelkerke ΔR^2 =.17, χ^2_{ch} (1) = 18.34, p < .001). In the final model, age (*OR* = 0.93, 95% CI = 0.88–0.98, p = .008) and ATSPPH (*OR* = 1.63, 95% CI = 1.01–2.62, p = .046) further continued to predict willingness to seek help from a WMHP. Beliefs about BPS causes of MI (*OR* = 2.44, 95% CI = 1.26–4.73, p = .008), but not consonance with economic values, remained a significant predictor of the outcome. Controlling for all variables, mistrust of WMHPs negatively predicted less willingness to seek help from a WMHP (*OR* = 0.10, 95% CI = 0.04–0.29, p < .001).

Table 21 shows the results of the regression using the adjusted scale. When using the adjusted consonance with economic values in the regression model, the final model explained 51.50% of the variance with age, ATSPPH, consonance with economic values, endorsement of BPS causes of MI, and mistrust of WMHPs all significantly contributing to predicting the outcome in the final model. The results of the ordinal logistic regression support the hypothesis that beyond personal stigma, general attitude, and practical barriers, the cultural match between a professional and patient is an important predictor of willingness to seek help when the cultural

characteristic of a mental health professional is highlighted (i.e., Western). Moreover, beyond issues related to cultural match, and consistent with the results of the qualitative findings, cultural mistrust of professionals is a significant contributor to lack of willingness to seek professional help for Arab Muslims living in Montreal.

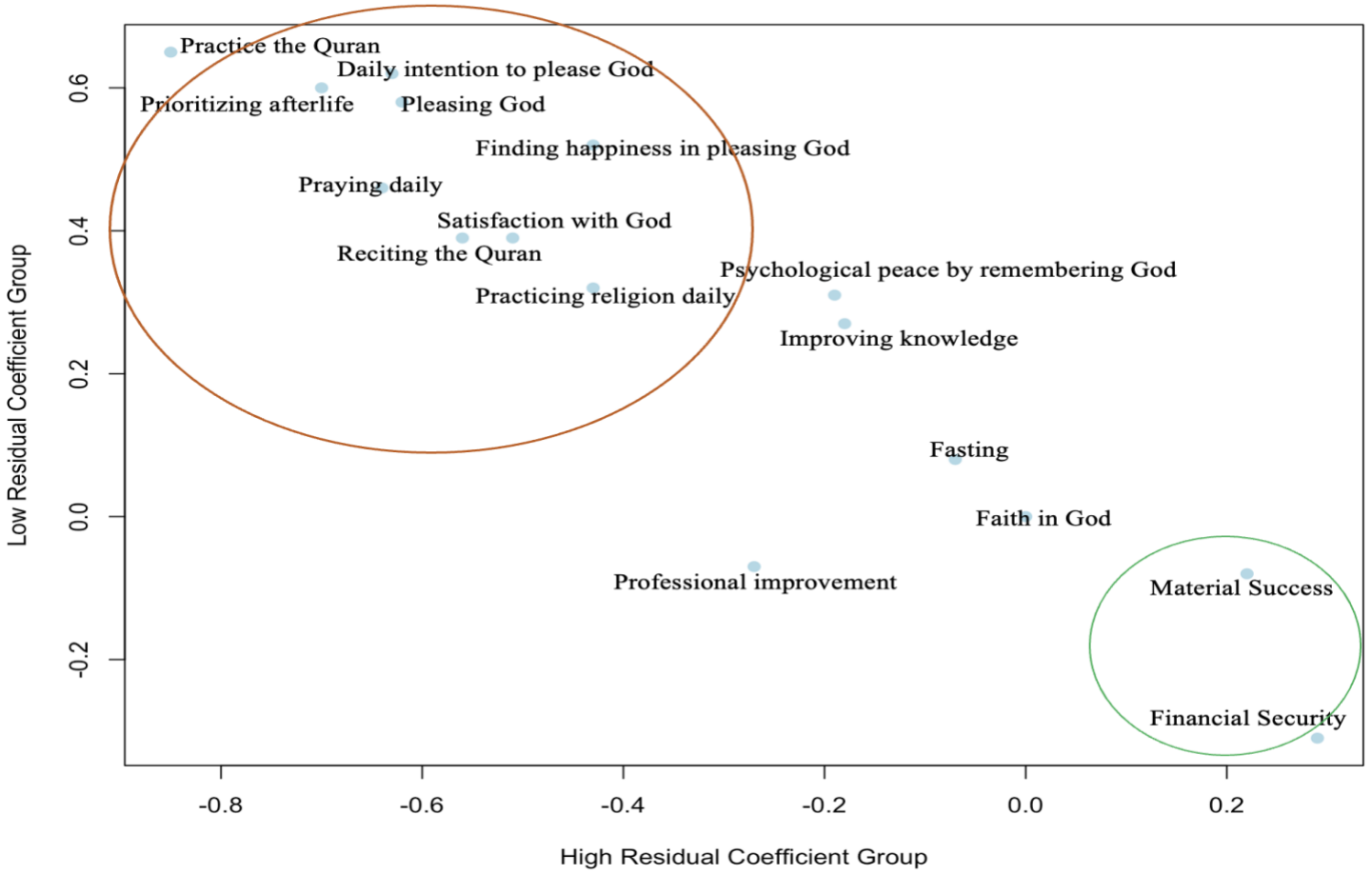

Figure 6. Relationship between mean deviations from average for the group with high residual coefficients and the group with low residual coefficients in the domain of important values and practices.

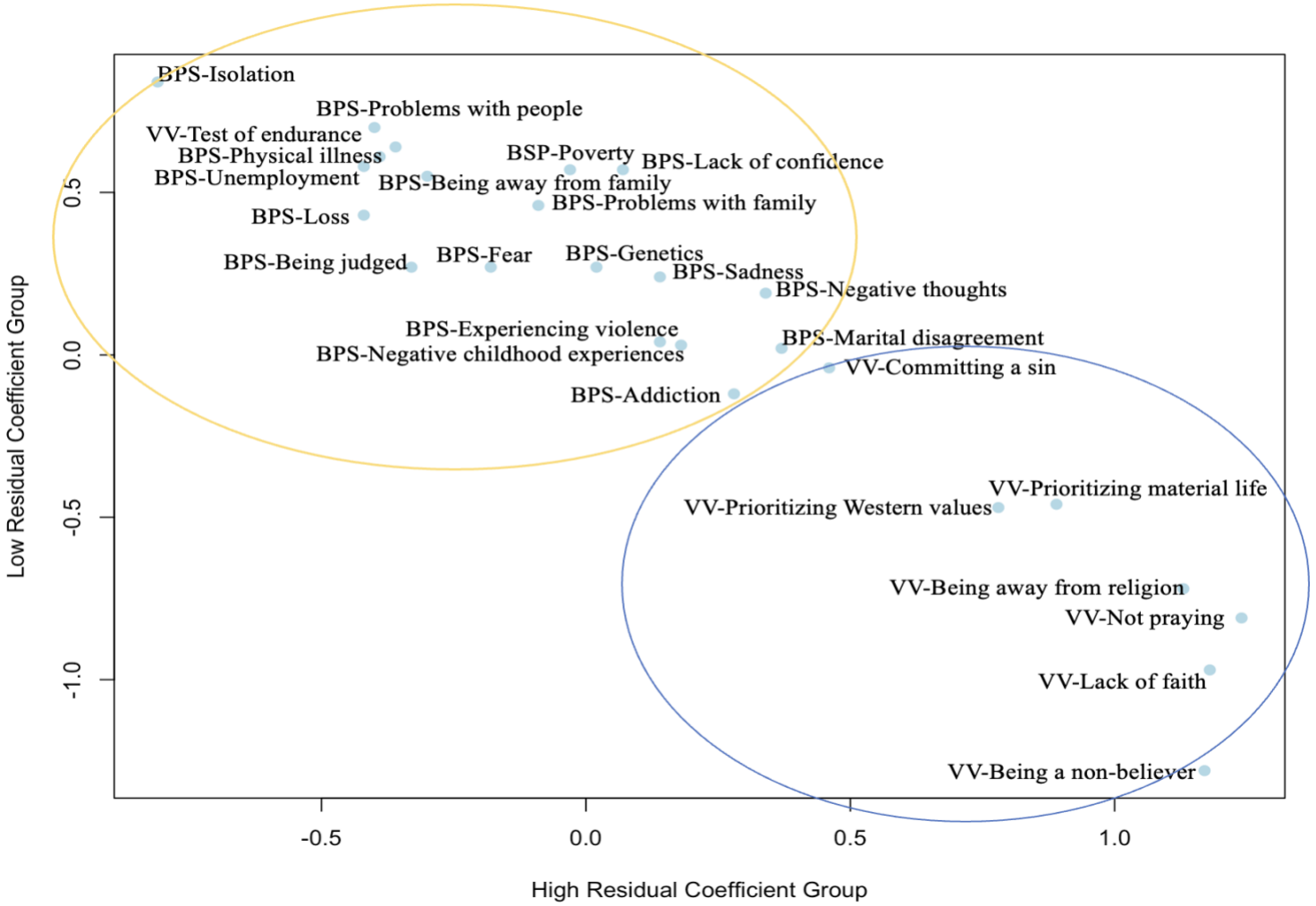

Figure 7. Relationship between mean deviations from average for the group with high residual coefficients and the group with low residual coefficients in the domain of mental illness.

Table 12. Characteristics of participants in the survey study ($N = 68$).

Characteristics	M (SD) Or *n* (%)
Age in years	32.06 (9.64)
Female	59 (86.8)
Citizenship status	
Canadian citizen	37 (54.4)
Permanent resident	18 (25.5)
Refugee status	1 (1.5)
Refugee claimant	2 (2.9)
International student	6 (8.8)
Exchange student	1 (1.5)
Other	3 (4.4)
Years in Canada	11.35 (9.77)
Country of birth	
Egypt	16 (23.5)
Saudi Arabia	7 (10.29)
Algeria	6 (8.8)
Morocco	6 (8.8)
Syria	6 (8.8)
Canada	6 (8.8)
Lebanon	5 (7.4)
United Arab Emirates	5 (7.4)
Iraq	2 (2.9)
Libya	2 (2.9)
Tunisia	1 (1.5)
Afghanistan	1 (1.5)
Bahrain	1 (1.5)
France	1 (1.5)
Jordan	1 (1.5)
Turkey	1 (1.5)
USA	1 (1.5)
Most proficient language	
Arabic	42 (61.8)
English	12 (17.6)
French	13 (19.11)
Other	1 (1.5)
Second proficient language	
Arabic	15 (22.5)
English	42 (61.8)
French	11 (16.17)
Third proficient language	
Arabic	10 (14.7)

English	14 (20.6)
French	25 (36.8)
Other or no third language	19 (27.94)
Relationship status	
Single	31 (45.6)
In a relationship/engaged	6 (8.8)
Married/cohabiting	26 (38.2)
Divorced/separated	5 (7.4)
Employment status	
Employed	27 (39.7)
Unemployed	41 (60.3)
Level of education completed	
High school	11 (16.2)
Pre-university college /CEGEP	9 (13.2)
Undergraduate	29 (42.6)
Graduate/post-graduate studies	19 (27.9)
Annual household income (Canadian dollars)	
Less than $25,000	32 (47.1)
$25,001 to $50,000	14 (20.6)
$50,001 to $70,000	18 (26.5)
$75,001 to $100,000	3 (4.4)
More than $100,000	1 (1.5)

Table 13. Weighted culturally correct answer key for the domain of important values and practices and the corresponding clusters (rating scale from 1 to 4).

Value Item	Cluster	Weighted Average Rating
1. Having Faith in God	Faith	2.68
2. Fasting in the month of Ramadan	Faith	2.59
3. Caring for and honouring Parents	Family	2.55
4. Creating psychological peace by remembering God	Faith	2.49
5. Helping those in need	Morality	2.48
6. Teaching Islamic values to one's children	Family	2.43
7. Having children	Family	2.43
8. Getting married	Family	2.43
9. Finding happiness in pleasing God	Faith	2.43
10. Praying five times a day	Faith	2.40
11. Being generous with one's time and money	Morality	2.37
12. Benefitting and contributing to the society	Community	2.37
13. Being kind and having empathy	Morality	2.36
14. Pursuing professional opportunities	Economic	2.36
15. Preserving and practicing Islamic teachings daily	Faith	2.34
16. Pursuing financial security	Economic	2.32
17. Having the intention to please God daily	Faith	2.30
18. Reciting the Qur'an	Faith	2.29
19. Being satisfied with what God has given one	Faith	2.29
20. Being honest and trustworthy	Morality	2.29
21. Being patient	Well-being	2.27
22. Practicing what is advised in the Qur'an	Faith	2.26
23. Pursuing opportunities to improve knowledge	Economic	2.25
24. Pursuing opportunities for material success	Economic	2.24
25. Representing the Muslim community well	Community	2.24
26. Prioritizing pleasing God over personal interests	Faith	2.23
27. Prioritizing morality over personal interests	Morality	2.21
28. Being modest in the way one talks about self	Morality	2.18
29. Prioritizing afterlife over the material life	Faith	2.17
30. Pursuing happiness	Well-being	2.15
31. Respecting others	Community	2.12
32. Prioritizing health	Well-being	2.07
33. Prioritizing harmonious relationships over personal accomplishments	Community	2.05
34. Prioritizing cooperation with others over personal interests	Community	1.98
35. Being modest in the way one dresses	Morality	1.80

Table 14. Pearson correlations between consonance scores, beliefs about causes of mental illness, and help-seeking related variables ($N = 68$).

	Beliefs about Causes of MI		Help-Seeking Related Variables							
	BPS Causes	VV Causes	ATSPPH	Help-Religious	Help-Self	Help-Social	Help-Religious Community	Help-WMHP	Mistrust of WMHPs	Religious Preference
Cons-Faith	.01	.20	.02	.53***	.18	.29*	.36**	-.02	.08	.30*
Cons-Faith-Adj	.06	.15	.07	.49***	.17	.29*	.35**	-.01	.09	.25*
Cons-Family	.18	.29**	.08	.25*	.01	.14	.25*	-.01	.05	.30*
Cons-Well-being	-.09	-.07	.01	.14	.07	.30**	.07	.09	-.16	.20
Cons-Morality	-.07	-.19	.14	.03	.01	-.09	.06	-.04	.08	-.00
Cons-Community	.07	-.14	.16	.28*	-.21	.19	.24*	-.00	-.07	.17
Cons-Economic	.35**	-.07	.21	.07	.04	.14	-.02	.31**	-.19	.06
Cons-Economic-Adj	.36**	-.03	.08	.01	-.09	.05	-.12	.34**	-.06	.12
BPS Causes	1	.45***	.15	.19	.28*	.17	.06	.32**	-.05	-.10
VV Causes	.45***	1	-.05	.41***	.26*	.00	.28*	.03	.14	.37**
Personal Stigma	-.21	.01	-.31**	-.22	.16	-.18	-.16	-.09	-.00	.01
Practical Barriers	.14	.02	.20	-.16	.01	.05	.04	-.07	-.01	-.15
ATSPPH	.15	-.05	1	.10	.01	-.02	.14	.25*	-.17	.05

Note. *$p < .05$, **$p < .01$, ***$p < .001$. Cons = Consonance, Adj = Adjusted, BPS = Biopsychosocial, VV = Value Violation, ATSPPH = Attitudes Toward Seeking Professional Psychological Help.

Table 15. Means and standard deviations of all untransformed variables ($N = 68$).

Scale	Mean	Standard Deviation
Attitudes towards seeking professional psychological help	4.90	1.07
Practical barriers	4.3	1.16
Personal stigma	1.72	0.95
Biopsychosocial causes of MI	5.70	0.77
Value violation causes of MI	4.78	1.32
Consonance-faith	18.22	3.39
Consonance-faith adjusted	12.67	2.55
Consonance-family	17.40	3.94
Consonance-well-being	16.52	2.65
Consonance-community	14.43	2.18
Consonance-morality	11.79	2.04
Consonance-economic	14.38	2.82
Consonance-economic adjusted	11.85	3.15
Religious coping strategies	5.84	1.51
Social help seeking strategies	5.02	1.44
Self-help strategies	4.97	1.03
Religious community help seeking strategies	4.10	1.41
Willingness to seek help from a WMHP	5.41	1.58
Mistrust of WMHPs	2.31	0.51
Preferences for a professional with Islamic awareness	5.09	1.54

Note. MI = Mental illness, WMHP = Western Mental Health Professional.

Table 16. Hierarchical regression analysis predicting preference for religious coping strategies (N = 67).

							95% CI	
	$R^2_{adjusted}$	*B*	*SE B*	β	*t*	*p*	LL	UL
Step 1	.01					.276		
Intercept		0.59	0.20		2.94	.005	0.19	1.00
Language		-0.14	0.08	-0.26	-1.92	.059	-0.29	0.00
Age		0.00	0.00	0.02	0.14	.886	-0.00	0.00
Gender		-0.09	-0.13	-0.13	-1.09	.281	-0.28	0.08
Length of stay in Canada		0.00	0.00	-0.00	-0.01	.989	-0.00	0.00
Step 2	.45					<.001		
Intercept		1.26	0.18		7.12	<.001	0.90	1.62
Language		-0.07	0.06	-0.13	-1.27	.209	-0.19	0.04
Age		0.00	0.00	0.17	1.61	.112	-0.00	0.00
Gender		-0.01	0.07	-0.01	-0.19	.848	-0.15	0.13
Length of stay in Canada		0.00	0.00	-0.11	-1.08	.287	-0.00	0.00
Consonance-faith		-0.05	0.01	-0.57	-5.37	<.001	-0.07	-0.03
Value violation causes		-0.04	0.01	-0.27	-2.82	.007	-0.08	-0.01

Note. DV is transformed using log10.

Table 17. Hierarchical regression analysis predicting preference for religious coping strategies using the adjusted scale ($N = 67$).

							95% CI	
	$R^2_{adjusted}$	*B*	*SE B*	β	*t*	*p*	LL	UL
Step 1	.01					.276		
Intercept		0.59	0.20		2.94	.005	0.19	1.00
Language		-0.14	0.08	-0.26	-1.92	.059	-0.29	0.00
Age		0.00	0.00	0.02	0.14	.886	-0.00	0.00
Gender		-0.09	-0.13	-0.13	-1.09	.281	-0.28	0.08
Length of stay in Canada		0.00	0.00	-0.00	-0.01	.989	-0.00	0.00
Step 2	.45					<.001		
Intercept		1.96	0.17		6.87	<.001	0.84	1.54
Language		-0.08	0.05	-0.14	-1.43	.156	-0.19	0.03
Age		0.00	0.00	0.18	1.78	.079	-0.00	0.01
Gender		-0.01	0.06	-0.02	-0.24	.809	-0.15	0.12
Length of stay in Canada		0.00	0.00	-0.09	-0.09	.334	-0.00	0.00
Consonance-faith-adj		-0.05	0.01	-0.56	-5.35	<.001	-0.07	-0.03
Value violation causes		-0.05	0.01	-0.31	-3.17	.002	-0.08	-0.02

Note. DV is transformed using log10. Adj = Adjusted.

Table 18. Hierarchical regression analysis predicting preference for a mental health professional who is aware of Islamic values ($N = 68$).

							95% CI	
	$R^2_{adjusted}$	*B*	*SE B*	β	*t*	*p*	LL	UL
Step 1	.03					.257		
Intercept		0.85	0.27		3.17	.002	0.31	1.39
Language		-0.14	0.08	-0.26	-1.90	.063	-0.30	0.00
Age		0.00	0.00	0.06	0.41	.679	-0.00	0.00
Gender		-0.18	0.09	-0.24	-1.88	.065	-0.36	0.01
Length of stay in Canada		0.00	0.00	-0.00	-0.02	.982	-0.00	0.00
Personal Stigma		-0.00	0.04	-0.01	-0.13	.894	-0.08	0.07
Practical Barriers		-0.03	0.03	-0.15	-1.10	.275	-0.09	0.03
ATSPPH		0.03	0.03	0.14	1.04	.304	-0.03	0.09
Step 2	.19					.002		
Intercept		1.37	0.28		4.74	<.001	0.79	1.94
Language		-0.12	0.07	-0.22	-1.74	.086	-0.27	0.01
Age		0.00	0.00	0.16	1.15	.256	-0.00	0.01
Gender		-0.11	0.08	-0.16	-1.32	.192	-0.29	0.06
Length of stay in Canada		0.00	0.00	-0.11	-0.85	.399	-0.00	0.00
Personal Stigma		-0.03	0.03	-0.13	-0.92	.360	-0.11	0.04
Practical Barriers		-0.02	0.02	-0.13	-1.13	.265	-0.08	0.02
ATSPPH		0.02	0.02	0.08	0.69	.496	-0.03	0.07
Consonance-faith		-0.02	0.01	-0.26	-1.85	.069	-0.06	0.00
Value violation causes		-0.05	0.02	-0.28	-2.59	.022	-0.09	-0.00
Step 3	.23					.038		
Intercept		1.69	0.32		5.30	<.001	1.05	2.33
Language		-0.13	0.07	-0.24	-1.95	.055	-0.28	0.00
Age		0.00	0.00	0.18	1.30	.199	-0.00	0.01
Gender		-0.11	0.08	-0.16	-1.38	.173	-0.28	0.05
Length of stay in Canada		0.00	0.00	-0.07	-0.57	.571	-0.00	0.00

Personal Stigma	-0.04	0.03	-0.16	-1.14	.255	-0.11	0.03
Practical Barriers	-0.02	0.02	-0.14	-1.16	.252	-0.08	0.02
ATSPPH	0.00	0.02	0.03	0.29	.766	-0.04	0.06
Consonance-faith	-0.03	0.01	-0.29	-2.08	.042	-0.05	-0.00
Value violation causes	-0.04	0.02	-0.23	-1.97	.053	-0.08	0.00
Mistrust of WMHPs	-0.11	0.05	-0.23	-2.12	.038	-0.22	-0.00

Note. DV is transformed using log10. ATSPPH = Attitudes Toward Seeking Professional Psychological Help, WMHPs = Western Mental Health Professionals.

Table 19. Hierarchical regression analysis predicting preference for a mental health professional who is aware of Islamic values using the adjusted scale ($N = 68$).

							95% CI	
	$R^2_{adjusted}$	*B*	*SE B*	β	*t*	*p*	LL	UL
Step 1	.03					.257		
Intercept		0.85	0.27		3.17	.002	0.31	1.39
Language		-0.15	0.08	-0.26	-1.90	.063	-0.30	0.00
Age		0.00	0.00	0.06	0.41	.679	-0.00	0.00
Gender		-0.18	0.09	-0.24	-1.88	.065	-0.36	0.01
Length of stay in Canada		0.00	0.00	-0.00	-0.02	.982	-0.00	0.00
Personal Stigma		-0.00	0.04	-0.01	-0.13	.894	-0.08	0.07
Practical Barriers		-0.03	0.03	-0.15	-1.10	.275	-0.09	0.03
ATSPPH		0.03	0.03	0.14	1.04	.304	-0.03	0.09
Step 2	.18					.003		
Intercept		1.31	0.29		4.64	<.001	0.74	1.87
Language		-0.13	0.07	-0.22	-1.79	.078	-0.27	0.02
Age		0.00	0.00	0.17	1.15	.304	-0.00	0.01
Gender		-0.12	0.09	-0.16	-1.32	.192	-0.29	0.06
Length of stay in Canada		0.00	0.00	-0.11	-0.85	.435	-0.00	0.00
Personal Stigma		-0.02	0.03	-0.14	-0.73	.468	-0.11	0.04
Practical Barriers		-0.03	0.03	-0.14	-1.13	.265	-0.08	0.02
ATSPPH		0.02	0.03	0.08	0.69	.504	-0.03	0.08
Consonance-faith-adj		-0.03	0.01	-0.22	-1.63	.107	-0.06	0.00
Value violation causes		-0.05	0.02	-0.31	-2.59	.012	-0.09	-0.01
Step 3	.22					.039		
Intercept		1.63	0.32		5.19	<.001	1.00	2.26
Language		-0.14	0.07	-0.24	-2.00	.055	-0.28	0.00
Age		0.00	0.00	0.71	1.18	.240	-0.00	0.01
Gender		-0.12	0.08	-0.16	-1.38	.173	-0.29	0.05
Length of stay in Canada		0.00	0.00	-0.07	-0.57	.618	-0.00	0.00

Personal Stigma	-0.04	0.04	-0.16	-0.94	.255	-0.10	0.03
Practical Barriers	-0.03	0.02	-0.14	-1.16	.252	-0.08	0.02
ATSPPH	0.00	0.03	0.04	0.30	.766	-0.05	0.07
Consonance-faith-adj	-0.02	0.01	-0.25	-1.86	.067	-0.05	0.00
Value violation causes	-0.04	0.02	-0.26	-2.21	.031	-0.08	-0.00
Mistrust of WMHPs	-0.11	0.05	-0.24	-2.10	.040	-0.22	-0.01

Note. DV is transformed using log10. ATSPPH = Attitudes Toward Seeking Professional Psychological Help, WMHPs = Western Mental Health Professionals, Adj = Adjusted.

Table 20. Hierarchical ordinal logistic regression analysis predicting willingness to see a WMHP (*N* = 68).

	Negelkerke R^2	OR (95% CI)					
		OR	LL	UL	*E*	*SE*	*p*
Step 1	.17						.077
Language		1.06	0.35	3.20	0.06	0.56	.911
Age		0.93	0.88	0.98	-0.06	-0.02	.019
Gender		0.67	0.17	2.56	-0.39	0.68	.562
Length of stay in Canada		0.99	0.99	1.00	-0.00	0.00	.520
Personal Stigma		1.213	0.70	2.08	0.19	0.27	.487
Practical Barriers		0.81	0.54	1.22	-0.20	0.20	.328
ATSPPH		1.99	1.25	3.17	0.69	0.23	.003
Step 2	.31				.003		
Language		0.87	0.27	2.75	-0.14	0.59	.807
Age		0.93	0.88	0.98	-0.08	0.03	.007
Gender		0.85	0.22	3.30	-0.16	0.69	.819
Length of stay in Canada		1.00	1.00	1.01	0.00	0.00	.806
Personal Stigma		1.60	0.89	2.88	0.47	0.30	.113
Practical Barriers		0.71	0.47	1.08	-0.34	0.21	.108
ATSPPH		1.91	1.20	3.04	0.65	0.24	.007
Consonance-economic		1.28	1.02	1.61	0.25	0.12	.036
Biopsychosocial causes		2.13	1.13	4.00	0.75	0.32	.020
Step 3	.48				<.001		
Language		1.26	0.39	4.14	0.23	0.61	.701
Age		0.93	0.88	0.98	-0.08	0.03	.008
Gender		1.05	0.27	4.13	0.05	0.70	.940
Length of stay in Canada		1.00	1.00	1.01	0.00	0.00	.377
Personal Stigma		1.46	0.80	2.65	0.38	0.30	.214
Practical Barriers		0.67	0.44	1.03	-0.40	0.22	.068

ATSPPH	1.63	1.01	2.62	0.49	0.24	.046
Consonance-economic	1.18	0.93	1.50	0.17	0.12	.163
Biopsychosocial causes	2.44	1.26	4.73	0.89	0.34	.008
Mistrust of WMHPs	0.10	0.04	0.29	-2.28	0.54	<.001

Note. ATSPPH = Attitudes Toward Seeking Professional Psychological Help, WMHPs = Western Mental Health Professionals.

Table 21. Hierarchical ordinal logistic regression analysis predicting willingness to see a WMHP using the adjusted scale ($N = 68$).

	Negelkerke R^2	OR (95% CI)					
		OR	LL	UL	*E*	*SE*	*p*
Step 1	.17						.077
Language		1.06	0.35	3.20	0.06	0.56	.911
Age		0.93	0.88	0.98	-0.06	-0.02	.019
Gender		0.67	0.17	2.56	-0.39	0.68	.562
Length of stay in Canada		0.99	0.99	1.00	-0.00	0.00	.520
Personal Stigma		1.213	0.70	2.08	0.19	0.27	.487
Practical Barriers		0.81	0.54	1.22	-0.20	0.20	.328
ATSPPH		1.99	1.25	3.17	0.69	0.23	.003
Step 2	.33				.002		
Language		0.93	0.30	2.89	-0.07	0.58	.906
Age		0.94	0.89	0.99	-0.06	0.03	.025
Gender		0.76	0.19	2.95	-0.28	0.69	.688
Length of stay in Canada		1.00	1.00	1.01	0.00	0.00	.743
Personal Stigma		1.56	0.87	2.79	0.45	0.30	.113
Practical Barriers		0.71	0.47	1.07	-0.35	0.21	.100
ATSPPH		1.93	1.21	3.07	0.66	0.24	.006
Consonance-economic-adj		1.22	1.04	1.44	0.20	0.08	.016
Biopsychosocial causes		2.13	1.12	4.03	0.75	0.33	.021
Step 3	.51				<.001		
Language		1.25	0.39	3.98	0.23	0.59	.703
Age		0.93	0.88	0.99	-0.07	0.03	.016
Gender		0.94	0.24	3.71	-0.06	0.70	.928
Length of stay in Canada		1.00	1.00	1.01	0.00	0.00	.347
Personal Stigma		1.51	0.84	2.73	0.41	0.30	.171
Practical Barriers		0.64	0.42	0.99	-0.44	0.22	.044

ATSPPH	1.66	1.03	2.67	0.50	0.24	.039
Consonance-economic-adj	1.21	1.03	1.43	0.19	0.08	.022
Biopsychosocial causes	2.28	1.18	4.41	0.83	0.34	.014
Mistrust of WMHPs	0.09	0.03	0.26	-2.40	0.53	<.001

Note. ATSPPH = Attitudes Toward Seeking Professional Psychological Help, WMHPs = Western Mental Health Professionals, Adj = Adjusted.

CHAPTER 5

General Discussion

In this dissertation, I used a mixed-methods approach to examine the disparities in utilization of mental health services among Arab Muslims residing in Montreal. The purpose of this exploratory research was two-fold. First, I sought to investigate the mental health needs of this population by addressing the following research questions: (a) What are the values and practices that comprise a good life for Arab Muslims? (b) What are the common EMs of MI among them? (c) What are their preferred ways of help-seeking? and (d) How do cultural values, EMs, and contextual variables predict help-seeking preferences? Second, I aimed to showcase the utility of CCA as a method for addressing the conceptual and measurement challenges that frequently arise in studies of culture. By operationalizing culture, I hoped to generate findings that are both reliable and emically valid. With these purposes in mind, I conducted three studies, each building upon the previous one, to explore cultural models of MI and help-seeking among Arab Muslims residing in Montreal.

Summary and Synthesis of the Mixed-Methods Results

I employed series of ethnographic methods including free listing, pile sorting, and qualitative interviews in the exploratory stages of this dissertation to explore the elements of three domains of interest: important values and practices, mental illness, and help-seeking preferences. Through the use of free listing, I was able to elicit locally relevant concepts within each domain, which provided a rich dataset for identifying the salient elements of cultural models and the relationship among these elements. Pile sorting allowed me to understand how the salient concepts are categorized and to gain insights about underlying dimensions and the conceptual relationships between clusters of items. Pile sorting findings were complimented by

qualitative interviews to gain a more comprehensive understanding the cultural models. While the quantitative analysis of the pile sorting data made it possible to visually identify patterns and categories in the data that might not be apparent through qualitative analysis alone, the qualitative interviews allowed us to attend to contextual components and the criteria used to categorize concepts and their relationship.

Within the domain of important values and practices, the study revealed that cultural models among Muslims are centred around faith and religion, as evidenced by the saliency of concepts such as the relationship with God, implementing God's will, and living according to Islamic values. These values were not only among the most salient items that emerged in the free listing study, but also formed coherent, distinct, and highly discussed clusters in the pile sorting and qualitative studies. In addition, I found that the cultural model of Muslimhood includes values related to family, community, society, morality, well-being, and economic aspirations, which were often explained in terms of their function in helping Muslims live in accordance with the Divine will. For example, many participants explained that Muslims can please God through fulfilling their responsibilities towards family and society. With such centrality of faith, it is not surprising to see that for participants, psychological well-being was highly associated with the quality of their relationship with God and their perceived ability to fulfill their duties as a Muslim. The results are largely consistent with previous literature on central aspects of Muslim culture such as values related to faith, morality, family, and community (E.g., Amri & Bemak, 2013; Haque & Keshavarzi, 2014; Haque & Nadir, 2008 Phillips & Lauterbach, 2017). However, this study adds to the literature by uncovering the saliency of economic and educational aspirations for this community. Although often ranked as "less important" relative to faith-related items, economic aspirations were among salient and talked about items in our study.

Moreover, our qualitative analysis revealed divergent frames of reference when discussing the importance of these values. While some participants viewed these values as meaningful only insofar as they help to fulfill one's duties as a Muslim (e.g., pursue education in order to please God through serving the society), some others emphasized their individual needs for success, financial security, education, and professional development. I speculate that the contrasting value systems that Muslims living in Western societies face daily may contribute to this religious versus secularly/individualistically oriented frame of reference. Relative to a religious one, a secularly/individualistically oriented frame of reference appears to be more aligned with Western value systems that emphasize personal achievement and success (D'Andrade, 2005; Mizelle, 2015). The use of emic ethnographic techniques allowed me to minimize the impact of researchers' bias in item development and contribute to the existing literature on Muslims' cultural models by uncovering aspects of Muslimhood rarely mentioned in the literature.

Within the domain of mental illness, this study revealed a multifaceted view of the causes, symptoms, and consequences of MI among Arab Muslims. Specifically, participants generated and distinguished between a host of biological, psychological, social, environmental, circumstantial, and spiritual components that can contribute to MI. I observed that participants did not assign a more influential role to any particular set of causes of MI compared to the other clusters, indicating a comprehensive and integrated view of MI. The results are consistent with previous research by Bagasra and Mackinem (2014), which similarly found a multifaceted view of MI causes. However, these findings contradict existing literature that emphasizes the salience of spiritual conceptualization of MI with little investigation of the beliefs about biopsychosocial causes among Muslims (e.g., Abu-Ras & Abu -Bader, 2009; Ali et al., 2022; Aloud & Rathur, 2009; Rassool, 2015; Seyed, 2003). Furthermore, the quantitative analysis revealed a significant

correlation between beliefs about biopsychosocial and spiritual causes of MI, indicating that the Western dualism between these two sets of causes may not be applicable to Arab Muslims. Notably, the findings challenge the prevalent literature that commonly cites supernatural causes of MI among Arab Muslims (e.g., Abu-Ras & Abu -Bader, 2009; Lim, Hoek & Blom, 2015; Rassool, 2015). Several potential explanations can be offered for this discrepancy. First, beliefs about supernatural causes of MI may be more prevalent among Muslims residing in Muslim-majority countries relative to those living in Western cultural contexts. Second, the samples included in this research comprised many Muslims living in Canada for over a decade, and thus, the results may differ for samples with higher number of newcomers. Third, it is possible that some Muslims endorse supernatural causes of MI, but these concepts were not salient or *prototypical* enough to be mentioned by our participants. Fourth, it is possible that participants provided more secularly consistent beliefs about causes of MI due to presence of cultural mistrust or perceiving the research team as representing secular values and beliefs. Nevertheless, the findings underscore the importance of ongoing investigation into the cultural dimensions of MI, which requires researchers to remain attentive to intracultural variations. To avoid developing research questions that are guided by stereotypes and misconceptions, ethnographic methods employed in this study can be helpful. Conducting multiple studies over extended periods of time and recruiting diverse samples from various cultural contexts can help to further investigate variations on conceptualization of MI for this population.

Moreover, this research revealed another noteworthy variation within our sample. Although the free listing and pile sorting findings pointed to the salience of spiritual elements, the qualitative analysis revealed nuanced and contested views on the causal role of violation of faith-related values in the development of MI. While some participants believed that distance

from God and religion can cause MI, others perceived such a view as stigmatizing and untrue about the nature of MI. Despite these divergent views, participants generally agreed that seeking closeness to the Divine and strengthening one's faith could help in coping with MI.

In the domain of help-seeking preferences, this study revealed that participants held an integrative perspective towards help-seeking, where religious coping strategies were viewed as complementary to other forms of help-seeking, such as social support, self-help techniques, community support, and professional help. I documented that participants exhibited a positive attitudes toward seeking professional psychological help (ATSPPH), with some sharing their actual experiences of visiting a mental health professional in the past. Specifically, participants noted that professional services can be helpful, and at times necessary to help improve symptoms of MI. The quantitative findings were consistent with previous literature, which suggests that positive ATSPPH was associated with higher willingness to seek such help (e.g., Aloud & Rathur, 2009). However, ATSPPH was not associated with any aspects of cultural consonance. In other words, the endorsement of important cultural values and practices did not correlate with general ATSPPH when the cultural identity of the professional was not indicated (e.g., Western versus Muslim). The qualitative analysis shed light on these findings by uncovering a pervasive theme of cultural mistrust towards Western Mental Health Professionals (WMHPs) among participants. Participants expressed concerns about being misunderstood, judged, and stereotyped by WMHPs. Notably, the quantitative results demonstrated that cultural mistrust of WMHPs was not associated with ATSPPH or cultural consonance, suggesting that cultural mistrust may be an independent construct from general attitudes and cultural values identified in this study. This study contributes a new dimension to the existing literature by emphasizing the importance of measuring attitudes towards professional help while clearly specifying who or what institution is

delivering the services. The results indicate that the cultural identity of the service provider matters, and cultural mistrust towards WMHPs can significantly hinder Muslims' willingness to seek professional help.

Building on the results of the ethnographic and qualitative stages, the final study aimed to quantitively confirm the presence of a shared cultural model of Muslimhood and statistically investigate intracultural variations. Results revealed that a shared cultural model of important values and practices exists among our sample. However, the analysis of the residual variance confirmed the divergent views identified in the qualitative study, such that while all participants agreed on the importance of faith in God, some individuals placed greater importance on religious practices, such as daily prayers, while others prioritize values related to economic aspirations, such as financial security and success. In the domain of MI, and reflecting the divergent views found in our qualitative study, analysis of the residual variance demonstrated a multicentric model of the causes of MI with some individuals emphasizing the biopsychosocial (BPS) causes of MI and some others highlighting value violation (VV) as a cause of MI.

Moreover, this study aimed to investigate the impact of these diverging views on help-seeking preferences. The analyses showed that cultural consonance with faith-related values as well as beliefs about VV causes of mental illness predicted higher preference for religious coping. These variables, however, were not significantly associated with ATSPPH, cultural mistrust, or willingness to seek help from WMHPs. Results also indicated that beyond personal stigma, ATSPPH, and practical barriers, the cultural match between a practitioners and patient is an important predictor of willingness to seek help when the cultural characteristic of a mental health professional is highlighted (i.e., Western versus Muslim). Specifically, beliefs about VV causes of MI and cultural consonance with faith-related values were significantly associated with

preferences for a religious practitioner whereas beliefs about BSP causes of MI and cultural consonance with values related to economic aspirations were significantly associated with willingness to seek help from WMHPs. Given these findings, it may be challenging to explain the lack of significant negative associations between consonance with faith-related values and beliefs about VV causes of MI with willingness to see a WMHP, as well as the lack of significant negative associations between consonance with economic values and beliefs about BPS causes of MI with preferences for a religious practitioner. One potential explanation for these results is the conceptual overlap between these variables, as strong correlations were observed between them, potentially masking their independent impact on help-seeking preferences. Moreover, the relationship between cultural values and help-seeking preferences is complex, and it is possible that other variables, such as previous experiences with practitioners or levels of acculturation, may have moderated the relationship between these variables and the outcome. Additionally, the measures used in this study may have lacked sensitivity in detecting subtle patterns. Thus, future research using more refined and reliable measures, and assessing the role of potential moderating variables, can help to clarify these findings. Importantly, however, beyond issues related to cultural match, this study indicates that cultural mistrust of WMHPs was a significant contributor to the desire to seek help from religious practitioners and conversely, lack of willingness to seek from help from WMHPs.

Altogether, the findings provide yet another support for Kleinman's theory (1978, 1987) that suggests that a patient's illness experience and healing process is shaped by their culturally constructed explanation of the illness, as well as the practitioner's EM. Furthermore, the findings are consistent with theories that suggest what makes healing practices 'legitimate' is the degree of fit between the psychotherapeutic explanation of illness offered by the service provided and

the sufferer's understanding of illness (Frank & Frank, 1993; Benish et al., 2011; Wampold, 2007). For instance, a Muslim individual who prioritizes values related to economic and educational aspirations and believes in the BPS causes of mental illness may find it easier to open up to a Western mental health professional who shares similar values and cultural references. On the other hand, those whose value system is centered around faith and believe in the causal role of the violation of Islamic values in MI development, may prefer a religious professional who can effortlessly understand their point of view.

Beyond the importance of cultural alignment in values and EMs between patients and care providers, these findings suggest that the sociopolitical context can be an important variable in shaping mental health help seeking among Arab Muslims. This study contributes to the existing literature by shedding light on cultural mistrust among Arab Muslims in Canada, which has not been extensively explored before. To contextualize the findings, it is important to consider our sample characteristics. Across the three studies, 45% of the participants had lived in Canada for more than 10 years, with an average length of approximately 12 years. The majority of participants (87%) were Canadian citizens or permanent residents, with 38% and 30% holding undergraduate and graduate degrees, respectively. Additionally, most of the participants completed the research tasks in English and reported fluency in French. Moreover, the majority of participants (80%) identified as female. Using length of stay in Canada, immigration status, language abilities, and education levels as proxies for acculturation, our sample consisted of well-acculturated individuals within Canadian society. The findings may not generalize to Arab Muslims with different demographic characteristics. Nonetheless, given the levels of exposure to Canadian cultural contexts in our sample, and considering that females are generally more likely to hold positive attitudes towards seeking mental health services (Mackenzie, Gekoski, & Knox,

2006), identifying significant cultural barriers within this sample implies that the experiences of less-acculturated individuals may be even more challenging. I speculate that the identified cultural barriers may be more pronounced for Arab Muslim newcomers, individuals with lower education levels, those who lack fluency in English or French, or those who identify as male.

The concept of cultural mistrust is not exclusive to Arab Muslims, as similar research has been conducted with Black Americans (Nickerson, Helms, & Terrell, 1994; Terrell & Terrell, 1981) and Indigenous communities (Dyck & Kearns, 1995; Gone, 2013). Cultural mistrust is fundamentally about cultural safety, which involves respectful and meaningful engagement with patients, irrespective of their cultural background (Koptie, 2009; Polaschek, 1998). Failure to provide cultural safety within mental health services can create mistrust and reluctance to seek help. Cultural safety acknowledges that mental health service use is influenced by historical, economic, and social contexts (Curtis et al., 2019). In this regard, this study reveals the impact of sociopolitical contexts, such as widespread Islamophobia in Quebec, on the cultural mistrust of WMHPs by Arab Muslims. Moreover, these findings underscore the concept of *social suffering* as described by Kleinman et al. (1997), in which broader societal power dynamics and cultural values contribute to the EMs of MI for minority populations who endure unequal power within society. The clinical literature has illustrated how beliefs about the implications of MI can set off a chain reaction of physical, emotional, and social consequences. These consequences can then loop back and further impact the manifestation of symptoms (Chentsova-Dutton & Ryder, 2019; 2020; Kirmayer & Sartorius, 2007; Ryder & Chentsova-Dutton, 2015). For Arab Muslims living in Canada, cultural mistrust may have become intertwined with their EMs of MI. The perception of symptoms and help-seeking behaviour among Arab Muslims could be influenced by their knowledge of societal attitudes towards Islam, including within the mental health profession.

Such knowledge may contribute to a belief that optimal psychological help is not readily available, thereby potentially exacerbating their distress. Islamophobia can pose a dual risk for Muslims, as it can lead to both increased psychological distress and reduced willingness to seek professional help (McLaughlin, Ahmad & Weisman de Mamani, 2022). The potential looping impact of reduced willingness to seek help on exacerbating the symptoms in this population needs further investigations.

Clinical encounters can be viewed as a microcosm of the world, where broader societal power dynamics and cultural values are reflected in the interactions between mental health professionals and patients (Vasquez, 2007; Wampold, 2013). This phenomenon emphasizes the need to consider the wider societal and systemic contributors that shape Muslim patients' attitudes and behaviours towards Western mental health care. From this perspective, health disparities are not solely the product of cultural differences, but also reflect historical and contemporary events that shape the relationship between members of a cultural minority community and the host community. Thus, future research can benefit from shifting the focus from the cultural values and beliefs of Muslim patients to broader societal issues, and an intersectional approach is essential for understanding the underutilization of mental health services among Muslims. The clinical implications of these findings will be discussed further.

Clinical Implications

Attending to Issues Related to Cultural Mistrust

With cultural mistrust playing an influential role in service utilization among Arab Muslims, mental health services could benefit from prioritizing the assessment of cultural mistrust when working with this population. To my knowledge, the Cultural Mistrust Scale developed in this study is the first to specifically measure this construct towards WMHPs among

Muslims. Upon further validations, this measure can be used in clinical settings as a starting point to measure and invite Muslim patients to share their concerns about cultural safety. Failure to address cultural mistrust may impede the elicitation of patients' EMs of MI, that is often needed to inform diagnosis and treatment decisions. As reflected in participants' narratives, Arab Muslims may discontinue treatment if they perceive the clinical encounter to be culturally unsafe. As cultural mistrust can be rooted in societal elements beyond the therapy room, it is crucial to avoid presuming that patients will feel comfortable disclosing their cultural identity in the absence of explicit indications of cultural safety and positive regard. It may be necessary to extend positive regard outside of the therapeutic context by incorporating such affirmations into mental health facility websites or informational materials. This approach can help establish a welcoming and inclusive environment for potential patients.

When asking patients about their identity, it is critical to consider how the questions are asked and the patients' perceptions of the clinician and the safety of the clinical environment (Kirmayer, Mezzich, & Van Staden, 2016). To this end, literature on cultural safety encourages service providers to actively and continuously engage in critical self-reflection that challenges taken-for-granted practice and policies (Curtis et al., 2019). Moreover, this literature recognizes that it is the responsibility of the dominant health care culture to undertake the process of transformation of mistrust to trust. Studies have shown that service providers ability to engage in explicit dialogue about culture, known as *broaching*, can help to build a safe and comfortable place for patients to talk freely without restrictions (e.g., "*I noticed that we both have a different ethnic background. Could you tell me a bit more about your ethnic identity*?", Depauw et al., 2022, p.3). Broaching can prevent negative effects that may arise from cultural differences, including withholding cultural aspects of oneself and instances of microaggression (Chang &

Yoon, 2011; Depauw et al., 2022). Broaching has been shown to benefit the therapeutic relationship, patient satisfaction, level of patient disclosure, and service provider's credibility (King & Borders, 2019; Knox et al., 2003). These findings are consistent with the reports of some of our participants wishing that their service providers would "address the elephant in the room" by explicitly discussing cultural differences. Attending to cultural safety is an on-going endeavour that can be facilitated through a person-centred approach to treatment (Kirmayer et al., 2016). In person-centered approaches, the focus is on understanding and engaging with patients as individuals. This involves paying systematic attention to their social context, both in terms of their personal history and their current situation. Additionally, such practice would take into account how culture's meaning changes in relation to the evolving social world and how such changes may be reflected in clinical encounters.

Eliciting Explanatory Models of Mental Illness

The present dissertation focused on examining the EMs of MI among Arab Muslims. Nevertheless, EMs are not fixed representations; rather, they are dynamic and continuously transforming (Dinos et al., 2017; Kirmayer & Bhugra, 2009; Nichter, 2010). While the findings in this dissertation may provide general insights, generalizing them to Muslim patients in real-world clinical settings without careful consideration of their unique EMs would be potentially inaccurate, stereotyping, and oversimplifying. Instead, I hope that this study highlighted the significance of cultural frames of reference and the meanings attributed to MI symptoms, emphasizing that neglecting patients' EMs could contribute to mental health disparities.

These findings underscore the importance of eliciting EMs systematically. The Cultural Formulation Interview (CFI), included in DSM-5, can serve as a simple tool to elicit patients' perspectives on their symptoms (Lewis-Fernandez et al., 2013; Lewis-Fernández, Aggarwal, &

Kirmayer, 2020). The CFI has a notable benefit of assisting service providers in assessing not just the patient's personal and idiosyncratic beliefs, but also their intersubjectively shared knowledge regarding their distress in a broader cultural context (Lewis-Fernandez et al., 2013). CFI does not require extensive training (Lewis-Fernández et al., 2017) and can serve as a *mini ethnographic tool* that can be used with each individual patient. Research by Lewis-Fernández et al. (2017) suggests that allocating roughly 20 minutes during the initial evaluation to utilize CFI can have a beneficial effect on not just the therapeutic relationship and communication, but also the accuracy of diagnosis and patient engagement with treatment. As noted by Jarvis et al. (2020), the use of CFI can be a crucial element in achieving person-centered care. The systematic use of this tool can encourage clinicians to adopt a reflective approach and encourage holistic thinking about the patient's illness experiences, which may otherwise be challenging to incorporate into standard clinical practice.

Implication for Professional Mental Health Trainings

Mental health practices, including psychiatry and psychology, originate from Western cultural traditions and perspectives on human nature (Kirmayer, 2007). Consequently, mental health professionals who receive training in these approaches may inherently hold comparable cultural values. Without additional training, such professionals may face challenges when working with cultural others. Unfortunately, many biases may remain unnoticed due to their culturally shared and taken-for-granted nature (Plaut, 2010), and some Western mental health clinicians may be unaware of the dual power they hold, both due to their race and their privileged position as experts in clinical encounters. Those who may be aware of these issues may yet avoid conversations about cultural differences for various reasons. Some may feel uneasy discussing cultural issues due to the sensitive nature of race relations or fear of offending patients. Others

may not know how or when to introduce these conversations, while some may wait for patients to bring up the topic (Cardemil & Battle, 2003).

To provide an example of how biases can impact treatment approaches, consider the narrative shared by a participant about a female Muslim who sought psychological help due to distress related to wearing the headscarf after being denied a job as a result of Bill 21. The service provider advised the patient to remove her hijab to reduce her distress, which caused her to feel misunderstood about her desire to continue wearing the hijab while feeling safe doing so. This encounter highlights potential sources of bias that may have contributed to a therapeutic rupture. First, the narrative suggests that discussions about the significance of the headscarf for this female patient were absent, as well as conversations about appropriate therapy outcomes (e.g., feeling safe wearing the hijab). Second, the clinician may have placed the root of the patient's distress on her personal behaviour of wearing the hijab, rather than acknowledging the broader societal context of discrimination. Third, the clinician's advice may reflect ethnocentric biases that view all Muslim women as oppressed victims of patriarchy (Hoodfar, 2001; Zine, 2001), while missing the nuance that wearing the hijab has been reclaimed by some Muslim women to challenge patriarchal values (Hoodfar, 2001).

The narrative shared by this participant is representative of a larger issue as many other participants shared similar experiences of encountering microaggressions and discrimination in clinical settings. The study's results align with the mounting evidence that these adverse encounters play a significant role in the creation and perpetuation of mental health disparities (DeBlaere et al., 2023). Given the significance of these negative encounters, there is an urgent need to help clinicians to enhance their reflective abilities. Merely suggesting that service providers practice cultural sensitivity is inadequate, as individuals may be unaware of their

limitations. Therefore, training institutions must implement structured curricula to improve the reflective abilities of service providers. Reflective abilities are crucial for adopting a person-centred approach to treatment, eliciting EMs of MI, and addressing issues related to cultural mistrust. Rousseau et al. (2020) argue that even structured interview protocols, such as the CFI, may lead to misunderstanding and oversimplification if used without systematic reflection. For example, through implementing regular case discussion seminars, which included individual, disciplinary, and interinstitutional diversity, Rousseau et al. showed that the trainees' cultural formulations moved away from identity assignment and essentializing culture to more comprehensive conceptualizations that account for biases and structural dimensions.

The widely held belief that Western psychological practices are 'culture free' or 'value neutral' poses a barrier to developing reflective abilities in mental health professionals (Jackson, 2015). For example, models of cultural competence and culturally adapted therapy locate the culture in patients, often essentializing cultural groups, and therefore, not providing clinicians with tools to enhance their awareness of their cultural references (Gopalkrishnan, 2018; Kirmayer, 2012; Lakes et al., 2006). This dissertation suggests a need to include mental health professionals in studies of culture. For example, service providers' attitudes towards Muslim patients and their experience of working with them has not been studied. Such studies are needed to develop training programs that teach clinicians the skills to practice reflexivity, beginning with the recognition of their own positionality and assumptions.

An example of an instrument that views practitioners as *cultural beings* and can be used to facilitate reflections is a tool proposed by Hays (2008), called ADDRESSING. This tool can be used by mental health practitioners to identify and understand cultural dimensions of both themselves and their patients. The acronym stands for Age, Disabilities, Religious orientation,

Ethnic identity, Socioeconomic status, Sexual orientation, Indigenous heritage, National origin, and Gender. By utilizing this tool, the practitioner can gain an understanding of themselves in the relationship with the patient. This approach is useful as it makes cultural attributes transparent, invites patients to talk about their culture, and encourages practitioners to be mindful of their own biases and culture in clinical encounters.

Similarly, Feedback-Informed Treatment (FIT) is a therapeutic tool that can help service providers to actively engage in seeking feedback from patients (Miller et al., 2016). FIT is based on well-established insights from the psychotherapy outcome literature and seeks to create a "culture of feedback" within the field (Miller et al., 2016, p. 5). By regularly and systemically collecting feedback, the goal of FIT is to ensure that therapy is meeting the patient's needs and to make adjustments to the therapeutic process in real-time. While FIT is not specifically designed to address cultural issues in therapy, it can be a helpful tool for self-reflection by identifying and addressing contributors that may be impacting the therapeutic relationship, such as discrimination (Chesworth et al., 2017). FIT can be well-aligned with practicing cultural humility; an approach that prioritizes being receptive to ongoing communication and learning from individual patients to facilitate mutual understanding (Fisher-Borne et al., 2015; Tervalon & Murray-Garcia, 1998).

Theoretical and Methodological Implications

In this dissertation, I aimed to demonstrate the value of incorporating theories and methodologies from cognitive anthropology into cultural-clinical psychological research focused on exploring the complex interplay between culture and mental health. Although anthropology and cultural-clinical psychology share a common interest in studying culture, cognitive anthropology offers a systematic framework that is consistent with the theoretical aspirations of

cultural-clinical psychology. In particular, cognitive anthropology provides researchers with the means to empirically investigate individuals within their cultural context, which is essential for studying mental health disparities.

As Chirkov (2015) argues, a comprehensive understanding of culture as a multidimensional social, mental, and intersubjective phenomenon is imperative for culture and psychology research to make progress. This dissertation utilized a cognitive theory of culture (D'Andrade, 1995; Goodenough, 1957) to provide a framework for studying the multifaceted concept of culture in ways that align with Chirkov's recommendation. Cognitive culture theory conceptualizes culture as a system of knowledge that exists both within individuals in the form of internalized beliefs and within the public domain as intersubjectively shared knowledge. This perspective on culture differs from other theories that view culture as patterns of behaviour (Harris, 2001), or use culture as a categorical variable or an average of individual-level characteristics (Chiu et al., 2010).

The conceptualization of culture as a set of intersubjectively shared cognitive models offers a dynamic view of culture that contrasts with the notion of cultural groups as homogeneous. This approach acknowledges the considerable variability that exists among individuals in terms of their knowledge and enactment of cultural models (Dengah, 2014; Dressler, 2018; Dressler & Bindon, 2000). Nonetheless, studying these models is crucial, as individual variations can be understood in relation to them. For instance, individuals from Western and Muslim backgrounds might both value the concept of success, but the frames of reference for what constitutes success might differ, with one group viewing the fulfillment of Islamic values as true success and the other group perceiving personal achievement as indication of success. Similarly, pursuing an individualistic model of success would have different

meanings in contexts where it is viewed as personal versus spiritual. Because cultural models have directive forces (D'Andrade, 1984), they can motivate individuals to pursue culturally salient goals in ways that align with the intersubjectively shared value system in their cultural contexts. The motivating nature of CMs is particularly important when studying how culture shapes the experience of mental illness as cultural models can have a direct impact on self-image and how well-being is defined (De Leersnyder, Kim, & Mesquita, 2015; Diener & Diener, 1995; Kitayama, & Markus, 2000). The cultural models theory employed in this dissertation, therefore, can contribute to cultural-clinical research on EMs and the role they play in mental health disparities. As noted by Chentsova-Dutton and Ryder (2020), the use of cultural models can influence how cultural-clinical psychologists conceptualize psychopathology by attending to both personal and cultural and how they tailor treatment to patients depending on patient's social context.

Viewing culture as a mental representation implies that it can be studied within the person using a set of methodologies (Dressler, 2018). This research program provides further evidence that a theoretical and methodological approach based on cognitive culture theory is advantageous in several ways. First, by using cultural consensus analysis, I was able to examine and statistically validate a model of collectively shared knowledge of Muslimhood among our participants. The cultural consensus model does not define culture in an absolute sense, but instead offers a *snapshot* of culture that enables us to use culture as an operationalized variable in research, thus allowing us to unpack its impact on behaviour with greater certainty (Dressler, 2020; Andrews, Dressler, & Oths, 2020).

Second, using cultural consonance, I established a clear empirical link between the person and the intersubjectively shared meaning without assuming that everyone in our sample

agreed with the shared knowledge. In this study, cultural consonance was utilized beyond its use in medical anthropology, where it was initially developed (see Dressler, 2007). Nevertheless, the findings provide support for cultural models as motivational forces in help-seeking, as indicated by the finding that participants were more likely to seek help from a mental health professional whose value system matched their own. Results are consistent with Fernando's suggestion that "[m]ental health development, like development in any other field, must start by tapping into what people in any location currently want and value" (Fernando, 2014, p. 555). Thus, I believe that cultural consonance with important values has research and clinical utility beyond medical anthropology and can be employed in studies of EMs of MI.

Third, by analyzing the residual variance, I systematically explored both shared and contested aspects of Arab Muslims' cultural models and demonstrated how these shared and divergent elements of culture lead to distinct help-seeking behaviours. Instead of relying on group membership as a representation of culture, cognitive culture theory and its relevant statistical procedures offer a significant contribution to culture research by allowing the subjective and intersubjective aspects of culture, including their variability, to be operationalized as variables in research (Dressler, 2020).

In addition to utilizing methodologies recommended within cognitive culture theory, this research highlight the advantages of using a mixed-methods approach. While CCA and cultural consonance allow for the study of culture as both subjective and intersubjective, the incorporation of qualitative analysis in this study helped to attend to societal elements that interact with these variables in shaping help-seeking preferences for Arab Muslims. Specifically, the findings underscore the significance of studying not only intersubjective knowledge about one's heritage culture, but also of the host culture, particularly for immigrant populations who

often simultaneously navigate and process competing cultural knowledge of both contexts (Andrews, Dressler, & Oths, 2020). Future studies could explore the potential for CCA to be adapted to test shared cultural knowledge about a cultural setting that people have exposure to, but may not have insider status in. Additionally, the mixed-methods approach increased confidence in the findings through triangulation, thereby providing further support for the usefulness of cognitive culture theory and its methodological recommendations in cultural-clinical studies. A comprehensive research methodology informed by theoretically grounded theories and a pluralistic stance on evidence can be beneficial for research aimed at addressing mental health disparities. This approach enables researchers to gain a better understanding of how shared models, individual beliefs, and structural forces interact with one another to shape mental health behaviours (Dressler, 2007).

Limitations and Future Directions

There are a number of limitations that must be considered when interpreting the findings of this program of research. First, a key limitation is the lack of preliminary ethnographic inquiry before selecting the cultural domains of interest. Borgatti (1999) defined cultural domains as culturally salient mental categories. A reliable determination of what constitutes a cultural domain or subdomain can be made through immersive work with the population under study. Ethnographic inquiry is a crucial aspect of research in anthropology, and I acknowledge that this study could have benefitted from more observation and interviews to verify that the cultural domains selected are salient to the population and to further help to contextualize the findings. Moreover, a more in-depth ethnographic inquiry could have potentially enabled me to further tailor my research questions to the mental health needs of Arab Muslims. Future research on this

population can benefit from increased engagement with the community and an exploration of how mental health and illness are commonly discussed within this population in their daily lives.

Second, while this study's results met conventional levels of statistical significance, some of the associations among our variables in the correlational analysis were relatively weak. This pattern suggests that the results should be interpreted with caution. It is possible that the relatively modest sample size of this study did not provide enough statistical power to detect stronger associations, if stronger associations in fact exist in the population. Furthermore, since this study focused primarily on prototypes that were elicited through free listing and pile sorting, the variables and subscales created may not be comprehensive. For example, some of the variables contain only a few items, which could have contributed to weak associations or made it difficult to detect an effect. While this study demonstrates the value of studying cultural prototypes as an exploratory tool and as part of *quick ethnography*, future research with larger sample sizes and more reliable scales is necessary to replicate and expand on these findings. In addition, the prototypes identified in this study can be used as a starting point for further inquiry into each of them in future research. For instance, future research could explore Arab Muslims' perspectives on each of the clusters identified in the MDS and examine how cultural variation in each of these clusters may predict help-seeking. Longitudinal studies can provide more confidence in the findings by revealing how various cultural variables interact to lead to different help-seeking behaviours over time.

Third, this study identified intracultural variabilities in important values and perceived causes of mental illness, without being able to determine what influences these variabilities or which cultural or demographic characteristics might predict an individual's likelihood to identify with a specific aspect of culture. Future research could investigate the underlying reasons for

these variabilities and identify components that contribute to their occurrence. Additionally, it is essential to consider that the impact of intracultural variation on help-seeking behaviours may differ depending on the context. For example, previous research indicates that Islamic cultural values predict rejecting attitudes towards seeking professional help. However, it is possible that the same values would predict willingness to seeking professional help when the help is perceived to be helpful or aligned with Islamic teachings. To explore these issues further, future studies could conduct comparative research to examine how cultural values and beliefs intersect with contextual elements to shape help-seeking attitudes and behaviours.

Fourth, it should be noted that while this study utilized measures with high face and emic validity, the psychometric properties of these measures need to be further validated. Developing emically valid measures are important to address ethnocentric biases, however, future research is needed to validate the measures used in this study, particularly the Culture Mistrust Scale, on diverse samples to establish their psychometric properties. Only through this validation process, we can ensure that the measures are truly capturing the constructs they are intended to measure, and that the findings from this study can be generalizable beyond our specific sample.

Fifth, although my research team and I employed methodologies that are sensitive to capturing local knowledge and established a trusting relationship with our participants, the potential impact of social desirability bias cannot be entirely discounted, particularly in light of the high levels of cultural mistrust evident in our sample. To increase confidence in the findings, it is necessary to conduct additional research using in-depth ethnographic methods that include more extensive naturalistic observations of how individuals view and cope with MI in their day-to-day life.

Sixth, although CCA has the advantage of providing a systematic way to empirically study culture, the accuracy and precision of the consensus model can still be influenced by variables such as the quality and design of the questionnaire, the phrasing of the statements, and linguistic challenges, particularly when using translated materials. Future investigations are needed to verify language equivalencies in the translations used in this study and to replicate the findings using more refined survey questions.

Lastly, it is important to note that this study aimed to provide a preliminary understanding of the cultural models of normalcy and deviancy among Arab Muslims residing in Montreal. While these findings offer valuable insights, they should be viewed as a starting point for further inquiry. For instance, although I explored beliefs about the violation of values related to faith and religion, I did not investigate how violation of other important values and practices, such as those related to family, community, and morality, contribute to EMs of MI and help-seeking preferences. Additionally, while I inferred frames of reference using cultural consonance, future studies can explicitly examine the identified frames of reference. For instance, cultural consonance measures could incorporate the reasons behind endorsements of culturally salient values (e.g., to please God versus to be happy) to more reliably assess spiritual versus individualistic frames of reference identified in this study. It would also be important to explore gender differences in EMs and help-seeking preferences, as well as investigate how violation of various clusters of values may lead to mental health stigma. Further research that addresses these gaps in knowledge can contribute to a more comprehensive understanding of cultural models of mental illness and help-seeking preferences among Arab Muslims.

Conclusions

Addressing mental health disparities is a complex task that necessitates the consideration of cultural and contextual contributors. The cognitive theory of culture and its relevant methodologies provide a promising avenue for cultural-clinical psychologists to systematically examine how culture influences barriers to effective help-seeking. Interdisciplinary collaborations between psychologists and anthropologists are recommended to make meaningful progress in this field.

Furthermore, it is crucial to transform the findings of mental health disparities literature into structured training curricula for mental health practitioners. Training programs should focus on developing reflective abilities and providing practical strategies to help clinicians build positive relationships with clients from diverse backgrounds.

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Appendix A

Data Screening

Initially, 83 participants were recruited in the final survey study. The inclusion criteria remained the same as the two previous studies. Ten participants were not able to complete the survey due to identifying as non-Arab or Shi'a. Another five participants were excluded from the study due to leaving the survey too prematurely (e.g., completing only the demographic measures). There were no missing data as the survey software (i.e., Checkbox) prevented participants from leaving any items unanswered. Three univariate outliers were identified among two participants for having a standardized *z*-score of greater than +/- 3.29. Each univariate case was replaced with the largest score within 3.29 standard deviations of the sample mean (Kline, 2020). Mahalanobis distance was calculated to identify multivariate outliers. No multivariate outliers were detected using the $p < .001$ cut-off (Tabachnick & Fidell, 2007). However, using a cut-off of 3 for studentized residuals, one case was detected to have a great distance from the regression surface and was removed from the analysis (Pituch & Stevens, 2015). The normality of the variables was examined, but there is no established consensus on the level of skewness or kurtosis that would indicate a non-normal distribution; nonetheless, some general guidelines exist (Kline, 2020). Using the general guidelines by Kline (2020), kurtosis was within acceptable limits of +/- 10 and skewness was within acceptable limits of +/- 3 for all scales. However, the descriptive statistics and visual inspection of the variable distributions indicates that some scales showed positive and negative skewness. The negatively skewed scales can be explained as all participants self-identified as Muslim. Thus, participants expectedly scored high on scales measuring Islamic values, practices, and beliefs (e.g., faith-related consonance, religious coping strategies, and preferences for a professional who is aware of Islamic values). Log10

transformation was used to normalize positively and negatively skewed scales and subscales (Kline, 2020). To meet the assumption of linearity, the correlational analyses were performed on transformed data. Additionally, transformed dependent variables were used in regression analyses where the assumptions of linearity, normality of residuals, and homoscedasticity would have been violated if the original data were used. All other analyses used untransformed data. Examination of the bivariate correlation matrix indicated the absence of bivariate collinearity as no correlation exceeded $r = .6$ and no multi-collinearity was found among the variables in the regression models using a cut-off of VIF > 10 (Field, 2009). The parallel lines assumption – an assumption in ordinal logistic regression analysis – was met (Erkan & Yildiz, 2014). In other words, the slope of regression lines between the independent variables and the dependent variable was consistent across all categories of the ordinal dependent variable.

Appendix B

Survey Measures

Attitudes Toward Seeking Professional Psychological Help-Short Form

In this section, we ask you about your opinion about professional help for emotional difficulties. Professional help includes services such as psychotherapy, psychological treatments, and counselling. These services are normally provided by mental health professionals including social workers, counsellors, therapists, psychologists, psychiatrists, etc.

Read each statement carefully and indicate your degree of agreement using the scale below by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. If I believed I was having a mental breakdown, my first inclination would be to get professional help.
2. The idea of talking about problems with a mental health professional strikes me as a poor way to get rid of emotional conflicts.
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in professional help.
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.
5. I would want to get professional help if I were worried or upset for a long period of time.
6. I might want to have professional help in the future.
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.
8. Considering the time and expense involved in professional help, it would have doubtful value for a person like me.
9. A person should work out his or her own problems; getting professional help would be a last resort.
10. Personal and emotional troubles, like many things, tend to work out by themselves.

Help-Seeking Preferences

Here is a list of different ways that a person can get help when going through a mental illness. Please indicate how helpful you think these strategies would be for YOU if you were going through mental illness by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

I think a good strategy for helping me go through a mental illness would be:

1. Praying
2. Exercise
3. Talking to a family member
4. Strengthening my faith in God
5. Seeing a Western mental health professional such as a Western psychiatrist, psychologist, counsellor, therapist, social worker, etc.
6. Invocation
7. Working on myself
8. Talking to a friend
9. Talking to an Imam or sheikh
10. Attending religious gatherings or workshops
11. Asking help from the Muslim community
12. Relaxation
13. Working on my relationship with God
14. Avoiding isolation
15. Reading the Quran
16. Travelling
17. Going to the mosque
18. Trying to make life-style changes such as eating healthy and sleeping better

Preferences for a Mental Health Professional

Imagine YOU decide to see a mental health professional. Please indicate to what degree YOU agree with each of these statements on your preferences about characteristics of a mental health professional by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

I prefer a mental health professional who:

1. is Muslim.
2. is familiar with Islam.
3. is willing to learn about Islam.

Cultural Mistrust Scale

Imagine a Muslim individual going to see a Western mental health professional to work on some emotional difficulties. Here are some statements about what WESTERN MENTAL HEALTH PROFESSIONALS might believe or do when working with a Muslim patient. Based on what you know generally about Western mental health professionals, please indicate to what extent, you think each statement is true about WESTERN MENTAL HEALTH PROFESSIONALS by selecting the circle in the appropriate column.

1	2	3	4
Very untrue			Very true

In general, Western mental health professionals:

1. feel confused when Muslim patients talk about their beliefs or culture.
2. are able to help Muslim patients even if they do **not** understand their faith.
3. are willing to help Muslim patients even if they do **not** understand their faith.
4. make inaccurate assumptions about Muslims before getting to know them.
5. can provide a treatment that is consistent with Islam.
6. consider the importance of afterlife for a Muslim patient.
7. can make recommendations that are in line with Muslims' values and culture.
8. assume that Muslim patients' choices are wrong before getting to know them.
9. are open to consulting with an imam or sheikh if needed.
10. tend to like Muslim patients.
11. tend to have a negative view of Muslim patients.
12. stop caring for their Muslim patients because of the differences in values and belief.
13. make Muslim patients feel "weird".
14. respect Islamic values and beliefs.
15. are responsive to Muslim patients' needs.
16. judge the way Muslim parents raise their kids.
17. undermine the importance of honoring and taking care of parents.
18. impose their values on their Muslim patients.
19. try to change the values that are important to Muslim patients.
20. are open to incorporate traditional healing methods into their treatment.
21. take the time to familiarize themselves with their Muslim patients' cultural background.
22. are open to talking to Muslim patients' family members if needed.
23. provide recommendations that interfere with Muslims' family-related values.
24. tend to understand Muslims' faith.
25. would never question how Muslim patients practice their religion.
26. would never judge Muslim patients for their beliefs and values.
27. impose the individualistic values that are incompatible with the Muslim community's collectivist values.
28. make generalizations about the Muslim community based on one or few patients.
29. expect Muslim patients to put their religion aside when working on their emotional difficulties.
30. tend to misunderstand Muslim patients.

Practical Barriers to Seeking Professional Help

Here is a list of different factors that can discourage a person to see a mental health professional. If you feel the need to see a mental health professional, please indicate how much each of the factors below would prevent YOU from receiving care. Think about all providers of emotional health services, including social workers, counsellors, therapists, psychologists, psychiatrists, etc. Please indicate to what degree YOU agree with each of these statements by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. **Problems with transport or travelling to appointments** would prevent me from seeing a mental health professional.
2. **Being inconvenienced** would prevent me from seeing a mental health professional.
3. **Lack of time** would prevent me from seeing a mental health professional.
4. **The financial costs involved** would prevent me from seeing a mental health professional.
5. **Long waiting times to see a professional** would prevent me from seeing a mental health professional.
6. **Being unsure where to go to get mental health care** would prevent me from seeing a mental health professional.
7. **Limited language proficiencies in English** would prevent me from seeing a mental health professional.
8. **Limited language proficiencies in French would** prevent me from seeing a mental health professional.

Personal Stigma
(Discrimination-Devaluation Scale)

Please indicate to what degree YOU agree with each of these statements by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. I would willingly accept someone who has received mental health treatment as a close friend.
2. I would think less of a person who has received mental health treatment.
3. I would believe that someone who has received mental health treatment is just as trustworthy as the average person.

Cultural Consensus

Here are some statements about what people in the Muslim community might believe or do. Please indicate to what extent, you think each statement is true about PEOPLE IN THE MUSLIM COMMUNITY by selecting the circle in the appropriate column. There are no right or wrong answers.

Remember, think about what you know about PEOPLE IN THE MUSLIM COMMUNITY when rating each statement and NOT your own personal beliefs or practices. If you are not sure whether a statement is true or untrue about PEOPLE IN THE MUSLIM COMMUNITY, simply make a guess based on your general knowledge.

1	2	3	4
Very untrue			Very true

In general, people in the Muslim community believe that it is important to:

1. Have faith in God.
2. Get attention from others in the way one dresses.
3. Be patient.
4. Avoid opportunities to improve one's knowledge.
5. Please and honor one's parents.
6. Get married.
7. Create psychological peace by remembering God.
8. Fast in the month of Ramadan.
9. Put personal interests before cooperating with others.
10. Help those in need.
11. Placing more importance on material life over afterlife.
12. Put personal interests before pleasing God.
13. Pursue financial security.
14. Preserve and practice Islamic teachings in day-to-day life.
15. Have children.
16. Put personal interest before morality.
17. Be satisfied with what God has given you.
18. Recite the Quran.
19. Put personal benefits before honesty and trustworthiness.
20. Avoid professional opportunities.
21. Pursue opportunities for material success.
22. Put in action what is advised in the Quran.
23. Be generous with one's time and money.
24. Placing more importance on individual accomplishments over harmonious relationships with people.
25. Pursue happiness.
26. Teach Islamic values to one's children.
27. Avoid benefiting and contributing to the society.
28. Respect those who have different values and culture.
29. Pray five times a day.

30. Avoid being modest in the way one talks about himself/herself.
31. Represent the Muslim community well.
32. Find happiness in pleasing God.
33. Be kind and have empathy.
34. Neglect health.
35. Have the intention to please God in all day-to-day behaviours and goals.

Beliefs about Causes of Mental Illness

People have different ideas about the causes of mental illness or the conditions that result in mental illness. For each of the potential causes of mental illness listed below, please indicate how influential YOU believe each cause can be in the development of a mental illness by selecting the circle in the appropriate column.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. **Marital disagreement** can cause mental illness.
2. **Lack of faith in God** can cause mental illness.
3. **Unemployment** can cause mental illness.
4. **Test of endurance** can cause mental illness.
5. **Placing more importance on material life over afterlife** can cause mental illness.
6. **Low confidence** can cause mental illness.
7. **Not praying regularly** can cause mental illness.
8. **Addiction to alcohol or drugs** can cause mental illness.
9. **Losing loved ones** can cause mental illness.
10. **Sadness** can cause mental illness.
11. **Being away from religion** can cause mental illness.
12. **Negative thoughts** can cause mental illness.
13. **Being judged by others** can cause mental illness.
14. **Problems with family members** can cause mental illness
15. **Experiencing violence** can cause mental illness.
16. **Negative childhood experiences** can cause mental illness.
17. **Fear** can cause mental illness.
18. **Placing more importance on Western values over Islamic values** can cause mental illness.
19. **Not practicing religion** can cause mental illness.
20. **Being away from family** can cause mental illness.
21. **Poverty** can cause mental illness.
22. **Isolation** can cause mental illness.
23. **Being a non-believer** can cause mental illness.
24. **Genetics** can cause mental illness.
25. **Not getting along with people** can cause mental illness.
26. **Physical illness** can cause mental illness.

Cultural Consonance

Please indicate how much YOU agree or disagree with each statement by selecting the circle in the appropriate column. There are no right or wrong answers.

Remember, think of YOUR own personal beliefs and behaviours in day-to-day life when rating each statement.

1	2	3	4	5	6	7
Strongly disagree			Neutral			Strongly agree

1. My faith in God is the most important aspect of my identity.
2. I like to attract attention in the way I dress.
3. It is difficult for me to be patient.
4. I find it difficult to be interested in improving my knowledge in my daily life.
5. I believe that getting married is an important goal to pursue.
6. I place more importance on my needs over pleasing and honoring my parents.
7. Remembering God provides me with psychological peace.
8. I fast almost every day during the month of Ramadan.
9. I believe cooperating with others gets in the way of achieving my goals.
10. I actively seek opportunities to help those in need.
11. I find it difficult to place more importance on afterlife over the material life.
12. I put pleasing God before all things.
13. Pursuing financial security is an important goal in my life.
14. I actively preserve and practice Islamic teachings in my day-to-day life.
15. I believe that having children is an important goal to pursue.
16. Sometimes I put my personal interests before being moral.
17. I feel dissatisfied with what God has given me.
18. It is hard to find time in my day-to-day life for reciting the Quran.
19. I find it difficult to say the truth when it is disadvantageous to me.
20. I am satisfied with the professional opportunities I have had.
21. Pursuing material success is an important goal in my life.
22. In my day-to-day life, I put in action what is advised in the Quran.
23. I avoid opportunities to give my time and money to others.
24. I place more importance on my personal accomplishments over maintaining harmonious relationships with others.
25. Pursuing happiness is an important goal in my life.
26. Teaching Islamic values to my present or future children is important to me.
27. I believe that I benefit and contribute to the society I live in.
28. I respect those who have different values and culture than me.
29. I pray at least 5 times a day.
30. I like to emphasize my achievements and abilities when talking with others.
31. It is important for me to represent the Muslim community well in my daily life.
32. Pleasing God is the main source of happiness for me.
33. I protect myself from other people's pains and problems.

34. I tend to neglect my health.
35. The intention to please God motivates my day-to-day goals and behaviours.