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Uncovering the Physical Activity Experiences of Muslim Women Students at Western University

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health Promotion

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Abstract

Purpose: This study will illuminate the experiences of young Muslim women studying at Western University regarding physical activity by exploring the intersectionality of sociocultural factors influencing their engagement with physical activity. **Methods:** Eleven participants were recruited using purposeful and snowball sampling. Individual, semi-structured, episodic interviews with the participants were conducted. Data was analyzed thematically using an abductive approach. NVivo software was used in the coding process. Critical Race Feminism and Orientalism were the theoretical frameworks used to frame interview guide and interpret research findings. **Findings:** It was found that religious teachings, ethnic background, and social support shape young Muslim women's experiences with physical activity, influencing their identities and access to physical activity spaces. **Significance of Research:** This research uncovers and provides a deeper understanding of Muslim women's experiences, offering important information in designing physical activity interventions that meet the needs of this demographic, reducing the risk of inactivity, and promoting inclusive and diverse physical activity spaces for them.

Keywords

Physical Activity; Muslim Women; Sociocultural Impacts; Critical Race Feminism; Orientalism; Intersectionality; Identity; Physical Activity Spaces.

Summary for Lay Audience

Imagine you want to participate in your favorite sport or exercise at the gym; however, you might be unable to do so because you do not have access to sports facilities or opportunities that meet your needs. Statistics from the Canadian Health Measures Survey (2018-2019) show low engagement in physical activity among Canadians; however, subpopulations, such as Muslims and other minority groups, are at an even higher risk of physical inactivity due to factors such as inadequate opportunities. This state of affairs increases the risk of chronic and mental health conditions associated with inactivity. Therefore, the research study aims to uncover the experiences of young Muslim women studying at Western University to explore the intersectionality of sociocultural factors influencing their experiences with physical activity. The data was collected using qualitative methods, and individual interviews were conducted with the eleven participants recruited in the study. The data was analyzed, and common themes regarding their experiences of accessing physical activity were generated. It was found that religious teachings, ethnic background, and social support influence young Muslim women's experiences with physical activity. Most young Muslim women agreed that religious practices encouraged them to engage in physical activity. The participants had different experiences with cultural norms as it had a positive influence for some, no influence, or negative influence for others. It was found that these young Muslim women are continuously challenged if they want to maintain their religious, ethnic, gendered, and physically active identities in physical activity spaces. However, having a supportive social network and inclusive spaces made it easier for young Muslim women to engage in physical activity and maintain their religious, ethnic, gendered, and physically active identities when engaging in physical activity spaces. The participants practiced a form of resistance to challenge distorted narratives about their engagement in physical activity and to advocate for inclusive environments. It is essential to uncover Muslim women's experiences regarding physical activity so that physical activity opportunities that are accessible and inclusive of Muslim women may be developed.

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Chapter 1

1 Introduction

Concepts like health have multiple, shifting meanings; as such, it is important that I outline what it means in this thesis. For the purpose of this research, health can be conceptualized as the “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 2005).

According to the World Health Organization (WHO) (2024), one of the ways to achieve optimal health (physical, mental and social) is by being physically active. For the purpose of this study, physical activity can be conceptualized as “any bodily movement produced by skeletal muscles that requires energy expenditure” (World Health Organization, 2024).

As such, any simple activity, such as walking, will be considered a physical activity in this study, and sport is considered to be a physical activity with a higher degree of formalism and structure, such as playing in a soccer team. Research shows that physical inactivity is associated with the risk of premature mortality and various chronic conditions, such as heart disease, diabetes, and obesity (Warburton & Bredin, 2017).

Even though physical activity is known for its positive outcomes, only 16% of Canadians met the recommended physical activity guidelines (Clarke et al., 2019). Although low engagement in physical activity is present in the general population, subpopulations, such as Muslims, immigrants, and other minority groups, are at an even higher risk of physical inactivity due to factors such as inadequate opportunities (Abdulwasi et al., 2018; Elshahat & Newbold, 2021; Mahmood et al., 2019; Salma et al., 2020). One of the most common reasons for inadequate opportunities is a lack of knowledge and misunderstanding about the needs of young Muslim women (Abdulwasi et al., 2018). For instance, there is a stereotype in Global North countries about Muslim women that they lack agency regarding their life choices and health (Abdulwasi et al., 2018). The lack of cultural awareness may result in a lack of inclusive physical activity spaces for marginalized groups (Ahmad et al., 2020). Therefore, it is crucial to raise cultural awareness to improve policies within sports organizations and to create inclusive environments for young Muslim women to engage in physical activity (Ahmad et al., 2020).

A higher risk of sedentarism increases the risk of chronic and mental health conditions associated with inactivity, especially among minority groups. Statistics show that 50% of the causes that make Canadians sick are factors about a person's life, such as gender, social status, race, lived experiences, and much more (Renfrew County and District Health Unit, n.d.). The main factor that shapes people's health is the living conditions they experience (Mikkonen & Raphael, 2010). Therefore, it is essential to explore the social determinants of health and factors that influence people's engagement in physical activity to improve the health and well-being of all people (Office of Disease Prevention and Health Promotion, n.d.).

One of the goals of *Healthy People 2030* policy framework is to “create social, physical, and economic environments that promote attaining the full potential for health and well-being for all” (Office of Disease Prevention and Health Promotion, n.d.). As health promoters, we must think ahead to improve our community's health and encourage them to maintain a healthy lifestyle. That means we must consider positively influencing people's attitudes regarding known health factors, whether it is physical activity, smoking, or other behaviors. As health promoters, we cannot simply say people are at high risk of developing chronic disease because of inactivity; but create the conditions for them to engage in physical activity. We cannot provide advice without offering the tools and resources they need to follow the advice. This state of affairs made me think about my research study and the goal of my research.

I chose to study the experiences of young Muslim women with physical activity because of my experience with physical activity as a young Muslim woman. Before I moved to Canada, I lived in the Middle East, and the culture differed from the Canadian culture. For instance, I noticed significant differences regarding interests in physical activity and sports. In Canada, physical activity is an essential part of their way of living, and there is a great emphasis on the importance of physical activity in schools. However, where I lived, physical education and gym classes were not taken seriously, at least from my experience. Before coming to Canada, I had a girls-only gym class at school where students had the option to engage in sports or not, and most of them decided not to participate in sports. When I came to Canada, I took a gym class in grade 10, and it was

of high importance like other classes. Students were expected to participate in sports to achieve high grades in the class. We would play a different sport each week, run laps, do aerobic exercises, etc. When I started thinking about my research topic, I started thinking about my experiences with physical activity. I started asking myself: Why was there such a difference in physical activity engagement in gym classes in the school I attended in the United Arab Emirates and Canada? From there, I decided to study this topic during my graduate studies. I wanted to understand how personal, social and cultural factors influence young Muslim women's engagement in physical activity.

By doing my research study at Western University, I aimed to understand the multitude of factors that may influence Muslim women students' engagement in physical activity. This research may be a starting point to provide young Muslim women students with accessible and inclusive environments to engage in physical activity. The improvement and development of inclusive environments appealing to young Muslim women may help change their attitudes regarding physical activity, which in turn may encourage them to start or continue engaging in physical activity. More broadly, the aim of my research is to help create environments that promotes active lifestyles for all, by paying particular attention to the specific needs of minority groups, such as young Muslim women living in Canada.

Although many research studies have been developed on young Muslim women's experiences with physical activity (Abdulwasi et al., 2018; Ali et al., 2015; Aljayyousi et al., 2019; Dagkas & Benn, 2006; Guerin et al., 2003; Soltani et al., 2021; Strandbu, 2005; Stride, 2014; Zaman, 1997), there still seem to be some missing pieces to date. First, research studies on Muslim women and their lived experiences with physical activity focus on two main factors: religion and gender. In my research study, I aim to explore a variety of factors, in addition to religion and gender, exploring intersectionality. I am interested to see how various micro (e.g. knowledge regarding the importance of physical activity), meso (e.g., support from family and friends), and macro (e.g., policies and the structure of physical activity spaces) factors (DiClemente et al., 2019) intersect to shape young Muslim women's experiences with physical activity at Western University.

Second, many research studies correlated the presence or lack of social support with physical activity levels in young Muslim women (Laird et al., 2018; Lenneis & Pfister, 2017). However, not many research studies have investigated why social support for young Muslim women is essential for them to engage in physical activity. Therefore, I aim to explore this missing piece using Critical Race Feminism theory and the lens of Orientalism as analytical frameworks to explore the significance of social support. Lastly, I want to illuminate the voices of young Muslim women in relation to negotiating and maintaining their identities and their perceptions regarding the notion of safety in physical activity spaces. Young Muslim women are continuously challenged to be included and feel a sense of community in physical activity spaces (Brah, 1996). For instance, young Muslim women in New Zealand are expected to integrate into society and engage in physical activity in the spaces available. However, their voices are often deserted, and the spaces do not include their needs, such as not offering women-only swimming sessions for individuals who need them (Ahmad et al., 2020). Therefore, my research will shed light on the unique voices of young Muslim women's experiences with physical activity in physical activity spaces at Western University and in the London community.

Eleven participants were recruited using mixed sampling and recruitment strategies, and individual, semi-structured, episodic interviews were conducted with them at Western University. The research data was analyzed thematically using an abductive approach, and NVivo was used to facilitate the process of data analysis. The Critical Race Feminism theory and the lens of Orientalism were used as an analytical framework to frame interviews and analyze and discuss the research findings. It was found that three main factors played a role in influencing young Muslim women's experiences with physical activity: religious teachings, cultural norms and expectations, and social support. These factors also intersected with how young Muslim women negotiated and maintained their religious, ethnic, and physically active identities in physical activity spaces. Most young Muslim women agreed that religion encouraged them to engage in physical activity, but also that they are continuously challenged to maintain their religious, ethnic, gendered, and physically active identities in physical activity spaces. However, having a supportive social network and inclusive spaces made it easier for young Muslim women

to engage in physical activity and maintain their religious, ethnic, gendered, and physically active identities when engaging in physical activity in physical activity spaces.

Following the introduction section, chapter two will provide an overview of the literature, exploring how various factors of the socio-ecological model (see Figure 1, p. 15) may influence the experiences of Muslim women with physical activity. In chapter three, the methodology and research design of the study will be presented. In this chapter, the recruitment process, data collection and analysis, in addition to the researcher's positionality, theoretical frameworks, and ethical considerations, will be discussed. In chapter four, the research findings will be presented and discussed using the social constructivist paradigm, critical race feminism theory, and Orientalism. Lastly, chapter five will summarize the study and discuss strengths, limitations, and recommendations for future research.

1.1 Study Objectives

This qualitative research study will illuminate the experiences of young Muslim women studying at Western University regarding physical activity and explore how they negotiate and maintain their religious, ethnic, gendered, and physically active identities in physical activity spaces.

1.2 Research Questions

The specific research questions are:

1. How do young Muslim women make sense of their experiences with physical activity in a variety of spaces in the university and/or in the community?
2. How do young Muslim women students negotiate their religious, ethnic, gendered, and physically active identities when engaging in physical activity in physical activity spaces?

Chapter 2

2 Literature Review

As Islam's visibility increases in the so-called Global North, so does the research on the relationship between physical activity and Islam. Much of the research on physical activity and Islam focuses on religion as the main barrier to participation in physical activity among Muslim women. However, this analysis is problematic because it may reinforce misunderstandings and wrong perceptions of Islam among Global North countries as it presumes that Islam as a religion is a problem. Therefore, it is essential to look at the *Quran* (the sacred scripture of Islam), *Sunnah* (the prophet's practices), and *Hadith* (the prophet's utterances) to understand Islam's view on physical activity. In addition, the concept of Orientalism by Edward Said, introduced in his book of 1978 (Said, 1979), will be addressed to understand the cultural perceptions of Islam in the Global North countries. The contextualization of the perceptions generated by the West about Islam is essential to develop our understanding of the lived experiences of Muslim women university students with physical activity in Global North countries because it will help in challenging false narratives and stereotypes and provide inclusive physical activity opportunities for this demographic. Furthermore, the lens of Critical Race Feminism theory will be used to understand how the intersectionality of race, gender, religion, and power structures influence Muslim women's experiences with physical activity (Wing, 2014). After this, the more specific literature on the impact of gender and identity as a young Muslim woman on participation in physical activity will be discussed. Lastly, an overview of the barriers and facilitators to Muslim women's engagement in physical activity at the micro ("the immediate environment in which a person is operating"), meso ("the interaction of two microsystems"), and macro (refers to the society as a whole "in which the other systems function") levels of the socioecological model will follow (DiClemente et al., 2019, p. 165).

2.1 What Does Islam Say About Physical Activity?

To understand the factors influencing the lived experiences of Muslim women university students with physical activity, it is essential to begin by defining Islam and exploring Islam's perspective on physical activity. As Zaman (1997) asserts: "in looking to the

needs of Muslim women we must take seriously the Islamic framework which informs Muslim women's sense of self" (p. 51). Islam means "submission to the will of Allah (God)" (History, 2023). Muslims view Islam as a way of life (Ali et al., 2015) since the *Quran*, *Sunnah*, and *Hadith* guide Muslims and influence almost all aspects of their lives (Ali et al., 2015). Within Islam, the body is a trust (Arabic word: amana) from Allah, and Muslims have a duty to care for their body and health, such as exercising to maintain optimal health. Therefore, Islam encourages Muslims to exercise and participate in sports that benefit their health and do not harm their bodies. This is evident in the *Hadith*, where a well-known Arabic *Hadith* states that "your body has a right on you" (Al-Bukhari, n.d.), meaning Muslims should take care of their physical and mental well-being. Another *Hadith* states that the Messenger of Allah, Prophet Mohammad (Peace Be Upon Him [PBUH]), said: "A strong believer is better and dearer to Allah than a weak one, and both are good. Adhere to that which is beneficial for you..." (Al-Hajjaj, n.d.). In this *Hadith*, it can be said that Muslims are encouraged to strengthen their body in all ways, physically, mentally, and spiritually, and do what benefits them.

Moreover, encouragement to engage in physical activity is not restricted to Muslim men only. Islam also encourages Muslim women to engage in physical activity and care for their health and well-being (De Knop et al., 1996). Prophet Mohammad (PBUH) encouraged his wife to run, and they used to race together (Al-Tabrizi, n.d.). Many Muslim women worldwide agree that Islam encourages them to participate in physical activity and care for their health (Ali et al., 2015; Walseth & Fasting, 2003; Aljayyousi et al., 2019). Take the case of Muslim women in New Zealand, where Islamic and health beliefs were a significant factor that encouraged them to engage in physical activity (Ali et al., 2015). Likewise, many Muslim Egyptian women emphasized the importance of engaging in physical activity and sports to care for their health. Their view on the importance of physical activity is guided by their Islamic beliefs (Walseth & Fasting, 2003). The Egyptian Muslim women interviewed stated that Islam encouraged participation in physical activity for reasons such as health and recreation (Walseth & Fasting, 2003). First, many Egyptian Muslim women "made reference to *the health concerns of Islam*" (Walseth & Fasting, 2003, p. 52). They stated that Islam emphasizes caring for their health and well-being. Therefore, they have a duty to take care of their

body; one way to do that is by engaging in physical activity (Walseth & Fasting, 2003). Second, they mentioned the recreational aspect of sports and how it is essential for their well-being. The Egyptian Muslim women believed there should be time for work, seriousness, play, and leisure and that this balance is crucial for one's mental health and well-being (Walseth & Fasting, 2003).

The importance of physical activity in Islam is also highlighted in *Sport in Islam and in Muslim Communities* by Amara and Testa (2016). Amara and Testa (2016) analyzed several *Quranic* texts and *Hadiths* to showcase Islam's perspectives on physical activity, informing Muslims to have a balanced life and avoid laziness, inactivity, and an unhealthy lifestyle (Amara & Testa, 2016). When Muslims participate in physical activity, they must ensure that these activities align with their Islamic beliefs and are not prohibited by Islam (Amara & Testa, 2016). For instance, Prophet Mohammad (PBUH) said: "when any one of you fights with his brother, he should avoid his face" (Al-Hajjaj, n.d.). As such, these scholars note that professional boxing is prohibited since it can harm the health of the individual and result in bad injuries (Amara & Testa, 2016). In sum, the authors concluded that Muslims are encouraged to participate in physical activity as long as they follow Islamic principles such as praying on time, not letting sports interfere with prayers, and dressing modestly when exercising in a mixed-gender gym (Amara & Testa, 2016).

2.2 Islam in Global North Countries

To create an accessible and inclusive physical activity and sports environment for Muslim women university students, it is crucial to understand the needs of young Muslim women, taking into consideration not just their religious beliefs and practices and cultural norms and expectations but also the society they live in, such as understanding how discrimination in the community, presence or absence of diversity, etc. influence the physical activity places for this demographic (Zaman, 1997). Zaman (1997) mentions a study by Carrington and colleagues (1986; as cited in Zaman, 1997) that revealed the risks of surrendering to stereotypes and the West's perceptions of Islam and Muslim cultures. If the stereotypes of Islam are not actively questioned, challenged, and confronted, Muslim women will continue to be disadvantaged, and their access to

adequate opportunities for physical activity may be restricted (Carrington et al., 1986, as cited in Zaman, 1997).

Unfortunately, the media plays a role in disseminating false perceptions and negative images about young Muslim women, which results in hatred, discrimination, and violence against them in Global North countries (Perry, 2014). According to a nationwide survey conducted in 2002 by the Council of American-Islamic Relations – Canada (CAIR-CAN), 55% of Muslims who responded to the survey believed that the Canadian media has become more biased since 2001 (Perry, 2014). As such, many negative images and stereotypes exist, and intolerance (Perry, 2014) and the perception of Muslim women as oppressed (Stride, 2014) have been associated with the broader Muslim community. The behaviours toward the broader Muslim establish barriers to women's engagement in physical activity due to reasons such as feeling unwelcome in physical activity spaces (Jiwani & Rail, 2010). The intersection of gender, culture, and religion with other micro (interpersonal and intrapersonal factors), meso (organizational and community), and macro (public policy) factors may result in some Muslim women experiencing inequality and discrimination when accessing physical activity opportunities (Stride, 2014). Walgrave (1992; as cited in De Knop et al., 1996) used the term 'social vulnerability' to illustrate how Muslim women in Global North countries are often confronted with discrimination, such as not being able to participate in a sports team due to hijab ban policy (Ayub, 2011), which limits their access. However, others may experience more favorable, pleasant situations when accessing available opportunities (Stride, 2014). For instance, on the community level, the availability of adequate sports facilities and organizations that meet the needs of Muslim women influences Muslim women's engagement in physical activity (Abdulwasi et al., 2018). Muslim women who prefer to attend women-only gyms and have access to these facilities are more likely to experience pleasant situations and engage in physical activity (Abdulwasi et al., 2018; Strandbu, 2005).

The intersectionality of multiple factors, such as social institutions, power, and politics, largely shapes Muslim women's experiences with physical activity (Zaman, 1997). These factors are, in turn, shaped by the predominant cultural narratives of Islam in the Global

North countries, which create a favorable or unfavorable ideological climate for women to engage in physical activity, namely Muslim women university students residing in the West. To further understand the position of Islam in Global North countries, the concept of Orientalism, Critical Race Feminism, and the literature exploring the lived experiences of Muslim women university students and Muslim women in general in the West will be examined in the following sections.

2.2.1 Orientalism

The term Orientalism has a long history, having been used by many historians and scholars in the eighteenth and nineteenth centuries (MacKenzie, 1995). Over time, the meaning and the use of the term Orientalism by scholars has changed. When Orientalism was first used it was described as “the study of languages, literature, religions, thought, arts and social life of the East” (pg. xii). The purpose of studying the East in the past was to introduce the life of the East to the West and protect the culture of the East “from occidental cultural arrogance in the age of imperialism” (MacKenzie, 1995, p. xii). So, the term Orientalism at that time had a sympathetic meaning. However, when the concept of Orientalism was introduced by Edward Said in 1978 (Said, 2016), it intended to illustrate that the representation of the East by the West is merely a construction, not a reality (Said, 2016; MacKenzie, 1995). Said defined Orientalism as “a style of thought based upon an ontological and epistemological distinction between ‘the Orient’ and (most of the time) ‘the Occident’” (Said, 2016, p. 403). This distinction between the Orient (the East) and the Occident (the West) emphasizes how the Occident is seen as superior, and the Orient as inferior (Said, 2016). In addition, Said defined Orientalism as “a Western style for dominating, restricting, and having authority over the Orient” (Said, 2016, p. 403). By analyzing this definition of Orientalism, it may be understood that the ideological purpose of Orientalism is the West taking control over the East. Thus, more recently, Orientalism is viewed as a “corporate institution” (Said, 2016, p. 403) to deal with, represent, and control the Orient (Said, 2016). As a result, this ideology has constructed false perceptions and stereotypes of the East, such as representing its people as passive (Said, 1979; 2016). In short, Orientalism refers to how the West represents the East in a stereotyped negative way (Said 1979).

In addition to Orientalism, Critical Race Feminism theory will be introduced in the next section as it is a crucial theoretical framework to understand how gender, race, and power intersect, providing a better understanding of young Muslim women's experiences with physical activity.

2.2.2 Critical Race Feminism

Critical race feminism (CRF) is a theory that arose from critical race theory (CRT) (Wing, 2014), a movement that includes “a collection of activists and scholars engaged in studying and transforming the relationship among race, racism, and power” (Delgado & Stefancic, 2023, p. 3). CRT shares several basic principles with CRF (Wing, 2014). First, race is socially constructed and reconstructed to meet the community's demands (Wing, 2014). Second, racism is viewed as part of our society and something normal instead of abnormal (Wing, 2014). Wing (2014) suggests that racism is not an exceptional occurrence anymore in society; rather, it has become a usual aspect of our daily lives, which means that racism has become ingrained in our social structures and societal norms. Third, both theories consider how individuals have unique identities, and as such, these identities must be considered comprehensively by exploring how young Muslim women negotiate and maintain their ethnic, religious, gendered, and physically active identities when engaging in physical activity (Wing, 2014). Fourth, these two theories reflect how marginalized groups have a “unique voice of color” that showcases the unique experiences of this group who faced racism and oppression (Wing, 2014, p. 164). In particular, Ratna and Samie (2018) explored the idea of unique identities and stated that each individual among the ethnic ‘other’ women would have unique experiences and experience oppression and racism differently. In this sense, the experience of racism and gender-based discrimination cannot be assumed to be homogeneous.

The racial and religious identities of young Muslim women intersect with one another, shaping their experiences with physical activity. As Hamzeh (2011) highlighted, it is important “to acknowledge that Muslims are diverse” (p. 337). Thus, people from various ethnicities and racial backgrounds can be Muslims. There are Arab Muslims, White Muslims, African Muslims, South Asian Muslims, etc., and these religious identities may be perceived and treated differently within communities because of their racial identity

(Clark & Saleh, 2019). Ratna and Samie (2018) mentioned that “oppressive forces of power and control will be experienced differently in and between ethnic ‘Other’ girls and women” (p. 11). This means that the racial identity of young Muslim women may influence how each Muslim woman may experience racism when engaging in physical activity or how their experiences when accessing physical activity opportunities may be influenced by the intersectionality of their racial and religious identity. The statement “religion can be raced” (Garner & Selod, 2015, p. 12) shows how certain religions are not just defined by religious practices but are also affiliated with certain racial groups. For instance, since many Arab countries are Islamic, the Arab racial identity and racial features of Arabs have been linked with Muslims. As such, young Muslim women who are easily identifiable by racial features or physical appearance, such as wearing the hijab, may be easily excluded and ‘othered’ when accessing physical activity opportunities (Ratna & Samie, 2018). Therefore, it is crucial to explore the concept of race and religion together because young Muslim women with the same religious identity, but different racial identity may have different experiences with physical activity. Thus, using CRF along with Orientalism as theoretical frameworks will help researchers and scholars explore the interconnected structures of marginalization towards minority groups, made marginal by the intersection of their race, religion, and gender. The physical and cultural spaces of physical activity may convey racist undertones (Ahmad et al., 2020). For instance, being denied access, such as when Muslim women athletes on Iran’s team were alienated because of FIFA’s ruling to ban them from participating in the competition for wearing the hijab, conveys racist undertones (Ayub, 2011). Taika, a sports coach and a participant in a research study by Ahmad et al. (2020) stated how important it is “to know what the current status of racism or discrimination is like before we can manage it and do something about it” (Ahmad et al., 2020, p. 647).

One missing factor from CRT that makes CRF unique is the concept of gender (Clark & Saleh, 2019; Berry, 2010; Wing, 2014; Ratna & Samie, 2018). CRF is “a body of writing that attempts to integrate the way race and gender function together in structuring social inequality” (Clark & Saleh, 2019, p. 162). Based on this definition, it is evident that intersectionality, coined by Kimberle Crenshaw (Cooper, 2016), is a foundational component of CRF, emphasizing how factors, such as race, gender, and ethnicity

intersect, creating unique challenges and experiences that are experienced by a particular marginalized group (e.g., women of color). For instance, some Muslim women in New Zealand felt like ‘outsiders’ and unwelcome when they attended public physical activity spaces, such as the public swimming pool (Thorpe et al., 2022). Many Muslim women experienced various forms of exclusion when they went to public physical activity places, as one of the participants said: “The people which are waiting... they make the environment uncomfortable, they become sometimes aggressive and unhappy” (Thorpe et al., 2022, p. 67). More implicit or explicit discriminatory acts such as “unpleasant looks, staring, negative remarks, and being made to feel unwelcome” result in the exclusion of Muslim women from public physical activity spaces (Kloek et al., 2013, p. 412). While some Muslim women find safe, inclusive, and accessible physical activity spaces and have positive experiences in these spaces (Stride, 2014), others may experience exclusion and feel ‘othered’ from physical activity spaces because of the intersectionality of their race, gender, ethnicity, and religion (Thorpe et al., 2022).

CRF centers marginalized women in the discussion rather than taking them out of the discussion (Berry, 2010) by exploring individuals’ stories to communicate and illuminate their unique experiences (Clark & Saleh, 2019). Thus, CRF acts as a powerful tool to deconstruct racism and stereotypes about a particular group since it “employs counternarratives as a point of resistance against that master narrative that propagates the racialization of women of color” (Clark & Saleh, 2019, p. 162). The idea that people’s experiences are objective is rejected by CRF. Instead, when CRF is applied to narrative inquiry, it “can disrupt racist hegemony” by showcasing “the voice and subjective experiences” of individuals (Clark & Saleh, 2019, p. 168).

In the next section of this chapter, an overview of the barriers and facilitators to young Muslim women’s engagement in physical activity will be presented. The barriers and facilitators will be explored at the intrapersonal, interpersonal, organizational, community, and public policy levels of the socio-ecological model (see Figure 1) (Centers for Disease Control and Prevention, 2015, as cited in Lee et al., 2017).

2.3 Barriers and Facilitators to Engagement in Physical Activity

Muslims are not a homogenous group, as individuals interpret and practice Islam differently, and this may have implications for their particular engagement in physical activity (Lenneis & Pfister, 2017; Dagkas & Benn, 2006; Miles & Benn, 2016; Ali et al., 2015; Nakamura, 2017; Strandbu, 2005). As a Muslim woman, I recognize the heterogeneity in the Muslim community, shaped by their lived experiences and cultural norms. For example, while some Muslim women wear the hijab, others may not, such as those who faced discrimination for wearing it may choose not to, especially if it makes them feel vulnerable (Dagkas & Benn, 2006). Furthermore, some Muslim women do not prefer exercising in mixed-gender sports facilities (Abdulwasi et al., 2018; Strandbu, 2005); whereas other Muslim women do not mind engaging in physical activity at mixed-gender sports facilities (Lenneis & Pfister, 2017). I will use Bronfenbrenner's socioecological model in my literature review to understand the heterogeneity of the Muslim community regarding the various multidimensional factors that may influence their engagement in physical activity. This model illustrates "how human development is influenced by the social system" (DiClemente, 2019, p. 164), illustrating how a person's life is affected by factors at five different levels: (1) intrapersonal; (2) interpersonal; (3) organizational; (4) community; (5) public policy (see Figure 1) (Centers for Disease Control and Prevention, 2015, as cited in Lee et al., 2017).

2.3.1 Intrapersonal Factors

Intrapersonal factors are "individual characteristics that influence behavior" (Rimer & Glanz, 2005, p. 11). So, in relation to engagement in physical activity, the personal knowledge of, attitude towards physical activity, and a person's gender intersect at the intrapersonal level to shape one's engagement in physical activity (Lenneis & Pfister, 2017; Abdulwasi et al., 2018; Salma et al., 2020; Dagkas & Benn, 2006; Ali et al., 2015; Caperchione et al., 2011). In addition, these intrapersonal factors may intersect with factors at other levels of the socioecological model.



Figure 1: The Socio-Ecological Model

First, having knowledge about the importance of physical activity has an impact on encouraging an individual to engage in physical activity. For instance, many Muslim women who had the opportunity to continue their education beyond middle or high school were more likely to believe that physical activity engagement is vital to maintaining a healthy lifestyle (Lenneis & Pfister, 2017; Dagkas & Benn, 2006). Therefore, access to high-quality education plays a crucial role in shaping Muslim women's knowledge about the importance of engaging in physical activity, shaping their engagement in the future.

Another significant intrapersonal factor that shapes people's engagement in physical activity is their attitude regarding participation in physical activity, which is influenced by their past lived experiences with physical activity (Abdulwasi et al., 2018). When individuals have a positive experience with physical activity, they are more likely to have a positive attitude toward physical activity and more likely to engage in it (Abdulwasi et al., 2018). This relationship was evident in a qualitative study conducted on South Asian Muslim Women. Abdulwasi et al. (2018) were interested in this specific subgroup

because research showed they are at a significantly high risk of mortality and morbidity due to type 2 diabetes and heart disease caused by low participation rates in physical activity. Participants who reported that their health has improved because of their engagement in the Mosque-based physical activity program were motivated and willing to continue engaging in physical activity (Abdulwasi et al., 2018). Their perception of a tangible health impact generated a positive attitude regarding engagement in physical activity (Abdulwasi et al., 2018). This research study by Abdulwasi et al. (2018) is significant because it showed that when adequate opportunities that meet Muslim women's needs are available, they are more likely to engage in physical activity; however, it only focuses on South Asian Muslim women.

Because culture significantly influences Muslim women's decisions to engage in physical activity (Abdulwasi et al., 2018; Dagkas & Benn, 2006; Lenneis & Pfister, 2017; Miles & Benn, 2017; Zaman, 1997; Aljayyousi et al., 2019; De Knop et al., 1996) we cannot generalize the conclusions from Abdulwasi et al. (2018) study. For instance, in Qatar, many participants stated that their families prioritize education and work over sports and extracurricular activities, leading to a sedentary lifestyle (Aljayyousi et al., 2019). Many families emphasize the importance of education to their children but not giving them the time to participate in physical activity, as was communicated by one of the young Muslim women who participated in the study (Aljayyousi et al., 2019). One young Muslim woman expressed how she wished her parents valued the importance of physical activity and motivated her to engage in physical activity as much as her parents motivated her to study and have better academic achievements (Aljayyousi et al., 2019). Therefore, to provide adequate and equitable opportunities for all Muslim women, we must understand how their cultural values, habits, and practices influence their engagement in physical activity. Later in this chapter, I will discuss the influence of culture on physical activity levels and its intersectionality with other factors.

Gender-related oppression is another intrapersonal factor that may influence people's engagement in physical activity. According to the critical race feminism theory presented earlier, women are more likely to experience exclusion and limited access to physical activity opportunities (see section 2.2.2). Based on the preliminary literature review, it

was evident that engagement in and people's lived experiences with physical activity is gendered (Burrmann & Mutz, 2016; Caperchione et al., 2011; Lenneis & Pfister, 2017; De Knop et al., 1996). In other words, the sociocultural norms and expectations in some cultures across the Muslim community may encourage or hinder Muslim women's engagement in physical activity (Burrmann & Mutz, 2016; Caperchione et al., 2011; Lenneis & Pfister, 2017; De Knop et al., 1996) in ways that are different to men's engagement in physical activity. According to Burrmann and Mutz (2016), "Muslim girls can be depicted as a group which is only marginally included in sport clubs and where the daily practice of sport is not the rule but an exception" (p. 38). Their study showed no difference in physical activity levels between boys without migration backgrounds and Muslim boys who are immigrants. Overall, Muslim boys were more active than the boys in the ethnic (German) majority group (Burrmann & Mutz, 2016). On the other hand, there was a notable difference in daily exercise and physical activity levels between girls in the ethnic majority groups and Muslim girls who are immigrants. Only 14% of Muslim girls engaged in daily physical activity compared to 26% of girls from the ethnic majority group (Burrmann & Mutz, 2016). Muslim girls often expressed their wishes to engage in physical activity but were unable to do so for different reasons, such as the lack of inclusive spaces (e.g., gender-segregated gyms) that are scarcely fulfilled at the gyms in Germany (Burrmann & Mutz, 2016).

Lastly, identity "a set of meanings defining who one is" as an individual, in society, etc. (Burke, 2021, p. 63) appears to be a factor that shapes one's experience with physical activity, especially among minority groups who experience gendered and racialized discrimination and contributes to our understanding of the notion of safe physical activity spaces (Jiwani & rail, 2010; Thorpe et al., 2022; Hamzeh, 2011). Based on the definition of identity and according to a critical race feminist lens, which states that "identity is unique to the individual" (Wing, 2014, p. 164), a woman may be defined as an individual who self-identifies as a woman and experiences womanhood based on the social roles and characteristics associated with womanhood in their culture, the society they live in, or their beliefs (Wing, 2014; Ratna & Samie, 2018). It is crucial to acknowledge that the definition of a woman involves a range of identities, behaviors and experiences that are

socially constructed by individuals and that they perform or contest in their everyday lives (Ratna & Samie, 2018).

Minority groups who experience gendered and racialized discrimination construct meanings of physical activity and safe physical activity spaces differently from the rest of society because of what they have experienced (Jiwani & Rail, 2010). For instance, Jiwani and Rail (2010) noticed that most women define physical activity as being fit, moving the body, working out at the gym, and looking good, but few define physical activity as being an athlete or joining a sports team. This has to do with gender expectations and the way sports are marketed, which creates a “gendered discourse that stipulates that sport has more meaning to men than women” (Jiwani & Rail, 2010, p. 256) because physical activity is “marketed to women when it rearticulates a conventional discourse of femininity” (Jiwani & Rail, 2010, p. 256). As such, many women engage in physical activity to look a certain way and are challenged to maintain their feminine identity because they focus on having the ‘ideal’ and ‘normal’ image that is socially constructed and closer to the ideal image of Global North countries.

While women, in general, face challenges in maintaining their identity as women in sports due to their gender, those whose ethnicity, race, and religion intersect with their gender encounter even greater hurdles in maintaining their ethnic and religious identities, in Western society (Jiwani & Rail, 2010). Muslim women, for instance, have to navigate, redefine, and uphold their religious and gendered identity in the society they reside in (Jiwani & Rail, 2010). The Hijab, a visible and significant part of many Muslim women's identity, is a prime example. Young Muslim women in Canada who wear the Hijab have expressed that it does not impede their participation in physical activity. (Jiwani & Rail, 2010; Thorpe et al., 2022). However, the lack of inclusive physical activity opportunities poses a challenge to their dual identity as physical activity enthusiasts and hijabi Muslim women, often requiring them to modify their sportswear to align with their Muslim identity (Jiwani & Rail, 2010; Thorpe et al., 2022).

The concept of *diaspora*, which comes from diasporic spaces, introduced by Brah (1996) is grounded upon ‘bipolar oppositions’ such as black/white, Muslims/Christians, etc. (p.

181). Thus, *diasporic spaces* address specifically “the point at which boundaries of inclusion and exclusion, of belonging and otherness, of ‘us’ and ‘them’” are challenged (Brah, 1996, p. 205). So, the meaning of diaspora here and in the context of this research is the point where young Muslim women are challenging their inclusion and exclusion, which may create a diaspora between their belonging and otherness (Brah, 1996). The author shows how minority groups and immigrants in Global North countries are pressured and challenged to create a balance between integrating into the society while preserving their ethnic and cultural identity. For instance, ethnic minority groups in New Zealand, including young Muslim women, are encouraged to engage in physical activity under the agenda of “sport (and health) for all” (Ahmad et al., 2020, p. 641). However, the encouragement of young Muslim women to engage in physical activity is framed in a way where they are expected to integrate, acquire, and embrace the culture of the society they live in when engaging in physical activity. As a result, the voices and experiences of young Muslim women remain missed and unheard (Ahmad et al., 2020). Thus, they undergo a process known as *deveiling*, where Muslim women must challenge genderized expectations imposed on them when accessing sports spaces, and as a result, influencing their experiences and engagement with physical activity (Hamzeh, 2011). For instance, some young Muslim women modified and created clothing that supported their engagement in physical activity while maintaining their religious identity by adhering to modesty that is part of their religious identity, such as the case of Noor, who made sure to dress modestly wearing a cap and hoodies or baggy clothes when she engaged in physical activity, even though she does not wear the hijab (Thorpe et al., 2022). Similarly, Lina, who wears the hijab and wanted the hijab to stay in place while she engaged in physical activity, had support from her mother. Lina’s mother made a sports hijab for her so she could engage in physical activity without barriers (Thorpe et al., 2022). These examples show how young Muslim women are proud of their Muslim identity and are able to maintain their Muslim identity while engaging in physical activity, thus challenging the myths and false narratives about the hijab and the genderized expectations of young Muslim women in physical activity spaces, such as the false expectation that Muslim women are not able to engage in physical activity while wearing the hijab. To understand Muslim women's barriers to physical activity, it is vital to remember that intrapersonal

factors intersect with other factors across the socioecological model, such as factors at the interpersonal level.

2.3.2 Interpersonal Factors

Interpersonal factors are the “interpersonal processes and primary groups, including family, friends, and peers, that provide social identity, support, and role definition” (Rimer & Glanz, 2005, p. 11). Specifically, one’s social network (family, significant others, and friends) may encourage or hinder someone from engaging in physical activity. In the literature discussed in this section, culture and gender are interconnected, imposing a host of sociocultural expectations and norms that explain why many women experience a lack of support from their social network, limiting their ability to engage in physical activity (Aljayyousi et al., 2019; Caperchione et al., 2011). Laird and colleagues (2018) investigated how social support might influence engagement in physical activity among adolescent girls. They found that social support was positively associated with physical activity levels in adolescent girls because it improved their performance and enhanced their self-efficacy, enjoyment, and motivation to be physically active (Laird et al., 2018). Therefore, exploring the connection between social support and physical activity levels among Muslim women university students at Western is essential. Social support entails resources provided by an individual’s social network, such as parents, friends, etc., (Laird et al., 2018). Social support can be emotional, such as parents encouraging their young daughters to engage in physical activity; instrumental, such as parents providing financial aid for their daughters to engage in physical activity like paying for their gym membership; informational, such as receiving guidance from sports coach to improve as an athlete; co-participation, such as engaging in physical activity with friends (Laird et al., 2018). For instance, when Lina’s mother supported her daughter to engage in physical activity by designing a sports hijab that would make it easier for her daughter to be physically active, it is considered instrumental support because Lina’s mother provided tangible assistance and resources for her daughter to help her engage in physical activity (Thorpe et al., 2022; Laird et al., 2018).

Social support regarding physical activity seems to be mediated by gender and cultural norms to some extent. The availability of social support is most likely connected to

cultural gender expectations (Aljayyousi et al., 2019). In Qatar, from the men's perspective, culture was seen as a facilitator of their engagement in physical activity (Aljayyousi et al., 2019). However, from the women's perspective, culture was seen as a negative influence that hindered their engagement in physical activity (Aljayyousi et al., 2019). According to some of the young Muslim women's experiences who participated in the Aljayyousi et al. (2019) study, one of the cultural norms is that a male family member must accompany them if they want to engage in physical activity outdoors. As a result, this 'rule' restricted their engagement in physical activity (Aljayyousi et al., 2019). Similarly, in a study conducted by Caperchione et al. (2011), some of the Sudanese Muslim women who lived in Australia lacked support from their family and peers, resulting in low physical activity engagement among this particular group. While in most cases, young women tend to lack support from their families to engage in physical activity, this is not always the case. Shabila, a young Muslim girl living in Denmark, mentioned that she received support from her parents, thus motivating her to engage in a sport she liked (Strandbu, 2005). Shabila received emotional support from her parents, who provided her with comfort and encouragement, as well as informational support, in the form of advice to continue engaging in physical activity and learn new activities (Strandbu, 2005).

Social support is not limited to family members and friends only. Other community members may be able to provide social support to motivate individuals to start or continue engaging in physical activity. For example, receiving social support from coaches or teachers in a sports institution or school environment can encourage young Muslim women to engage in physical activity (Abdulwasi et al., 2018). Muslim women who participated in the Mosque-based physical activity program and received support from their class instructor were motivated to engage in physical activity (Abdulwasi et al., 2018). On the other hand, students who do not receive support from their teacher are more likely not to engage in physical activity, as evident in a study conducted in Greece and Britain (Dagkas & Benn, 2006).

Sometimes, the low emphasis on the importance of physical activity in families does not hinder their young daughters from engaging in physical activity. Instead, it acts as a

catalyst, motivating young Muslim women to engage in physical activity (Aljayyousi et al., 2019). One young Muslim woman who participated in the study by Aljayyousi et al. (2019) expressed her passion for sports. Despite her parents, who did not motivate her nor valued engagement in physical activity, she continued to engage in sports because she had a passion for it and she loved engaging in physical activity (Aljayyousi et al., 2019).

Although prior research may have explored the connection between the presence or lack of social support and physical activity in young Muslim women, there still seems to be a missing piece. Not many research studies have investigated *how* a lack of social support causes low engagement in physical activity among young Muslim women. In addition, it is unclear *why* lack of support sometimes motivates some women to engage in physical activity. Therefore, by applying the socioecological model, I aim to explore the influence of social support on physical activity and its intersectionality with other factors, such as organizational factors. Support can be provided to young Muslim women at the organizational level, which will be discussed in the next section.

2.3.3 Organizational Factors

Organizational factors are “rules, regulations, and informal structures, which may constrain or promote recommended behaviors” (Rimer & Glanz, 2005, p. 11). The rules and regulations that certain sports institutions and facilities set up can facilitate or hinder Muslim women’s engagement in physical activity (Lenneis & Pfister, 2017; Soltani et al., 2021; Dagkas & Benn, 2006; Miles & Benn, 2016). For instance, dress code regulations applied at some sports institutions and specific sports can affect participation in physical activity among Muslim women. In prior qualitative research studies, many Muslim women described how dress code regulations influenced their engagement in physical activity (Lenneis & Pfister, 2017; Dagkas & Benn, 2006; Miles & Benn, 2016). Some Muslim women decide to dress modestly, especially in mixed-gender sports facilities, as observing modesty in one’s appearance is an important tenet of their religious practices. Therefore, the strict dress code regulations at the sports facilities or schools the Muslim women attended hindered them from engaging in physical activity because these regulations were not accommodating their needs (Lenneis & Pfister, 2017; Dagkas & Benn, 2006; Miles & Benn, 2016). For other women, the dress code regulations that were

in place did not hinder their engagement in physical activity because the regulations were accommodating (Lenneis & Pfister, 2017; Soltani et al., 2021). Therefore, regulations placed at the institutional level that do not consider the needs of Muslim women impact their engagement in physical activity.

The physical environment is critical in shaping one's physical activity levels (Aljayyousi et al., 2019; Salma et al., 2020; Abdulwasi et al., 2018). In some countries and cultures, people depend less on transportation, or a specific sport or activity is dominant in their culture. Thus, they are more likely to engage in such activity (Aljayyousi et al., 2019). In the study conducted by Aljayyousi et al. (2019), a participant describes that he values physical activity because in his home country, India, yoga is very popular, and people are more likely to engage in physical activity since they are less dependent on transportation to engage in this specific activity. On the contrary, the Qatari participants mentioned that the concept of physical activity is new to the Qatari culture (Aljayyousi et al., 2019). One of the participants mentioned that people who migrate to Qatar bring their values and perceptions about health and physical activity to Qatar, which helped motivate them to engage in physical activity (Aljayyousi et al., 2019). Thus, being exposed to knowledge about the importance of physical activity from other cultures/new immigrants plays a role in influencing one's experiences with physical activity. The government of Qatar started developing safe sidewalks and parks, which played a role in encouraging individuals to engage in physical activity (Aljayyousi et al., 2019). Therefore, safe physical activity spaces are crucial in motivating individuals to engage in physical activity.

The rules and regulations set by organizations are considered a form of support at a higher level if these regulations are inclusive of the Muslim community. As important as the rules and regulations set by organizations are, the support and resources provided within the community and factors, such as discrimination, also play a crucial role in influencing people's engagement in physical activity.

2.3.4 Community Factors

Community factors comprise the "social networks and norms, or standards, which exist as formal or informal among individuals, groups, and organizations" (Rimer & Glanz,

2005, p. 11). The social support, resources, and opportunities provided by the community to young Muslim women play a crucial part in influencing physical activity levels among this group. For instance, many young Muslim women mentioned that, due to cultural norms, they are expected to care for their families (Lenneirs & Pfister, 2017; Miles & Benn, 2016; Caperchione et al., 2011). Hence, young Muslim women find it challenging to engage in physical activity due to a lack of time or the absence of someone to look after their children while they are away (Caperchione et al., 2019). Therefore, communities that provide access to mother-child friendly physical activity spaces for young Muslim women will encourage the women to engage in physical activity (Caperchione et al., 2019). The mother-child friendly physical activity spaces provided to young Muslim women benefit the community long-term. It allows young Muslim mothers to engage in physical activity alongside their children, acting as role models for their children and encouraging them to engage in physical activity and adopt healthy behaviors. Groups, stakeholders, and organizations need to build relationships with the people in the community to understand their needs and develop an inclusive community. Another example is the implementation of Mosque-based physical activity programs in Ontario for the Muslim community (Abdulwasi et al., 2018). Stakeholders and organizations studied the needs of the Muslim community and, as a result, created this inclusive physical activity program. The Mosque-based physical activity program meets the religious needs of young Muslim women, where they can engage in physical activity and still follow Islamic principles, such as praying on time and not worrying about missing a prayer (Abdulwasi et al., 2018). Such opportunities provided by stakeholders to the community will motivate young Muslim women to engage in physical activity.

The support and resources organizations provide to the community are not the only influence on young Muslim women's engagement in physical activity. Equally important, discrimination toward young Muslim women may influence their engagement in physical activity (Guerin et al., 2003; Salma et al., 2020). Perry (2014) highlighted the complexity of Muslim women's identity when talking and writing about this group in research. This is because many factors, such as their gender as a woman, cultural identity, status as immigrants, language, and religion, intersect, making them vulnerable to inequality, discrimination, and lack of access to adequate opportunities (Perry, 2014). Young

Muslim women, especially those who wear the hijab (headscarf), are at a greater risk of facing discrimination because the hijab, which is considered a symbol of modesty in Islam, but seen as a symbol of oppression by the West (Perry, 2014), identifies them as an outsider from the Western community, making them targets for discrimination (Perry, 2014; Kloek et al., 2013). For some young Muslim women, exposure to discrimination by the community can hinder their engagement in physical activity (Guerin et al., 2003; Salma et al., 2020). If young Muslim women want to engage in physical activity in public spaces, such as gyms or parks, issues like safety concerns associated with discrimination might hinder them from doing so (Guerin et al., 2003). While discrimination can limit young Muslim women's engagement in physical activity, it does not always lead to nonengagement in physical activity. Kloek et al. (2019) found that discrimination experienced by Muslim women in the Netherlands does not always prevent them from engaging in leisure activities. Instead, these young Muslim women negotiate discrimination and deal with it by applying coping strategies, such as smiling and ignoring discriminatory acts or finding less visible physical activity spaces (Thorpe et al., 2022) instead of letting it hinder their engagement in leisure activities (Kloek et al., 2019). Therefore, exploring the concept of physical activity spaces in further detail is essential to understanding how spaces and environments influence Muslim women's engagement in physical activity.

Physical Activity Spaces

A significant factor frequently mentioned by young Muslim women students in prior studies is the concept of 'safe' physical activity spaces (Maxwell et al., 2013; Thorpe et al., 2022). In health promotion, environment and space play a crucial role in shaping individuals' health (Dummer, 2008). For instance, safe neighborhoods, such as the availability of safe sidewalks, encourage individuals to engage in physical activity like walking (Bennett et al., 2007; Stafford et al., 2007). Thus, where individuals engage in physical activity shapes their lives and health experiences (Dummer, 2008). As mentioned earlier (see section 2.3.4), Muslim women who have safety concerns associated with discrimination in physical activity spaces might feel hesitant to engage in physical activity in these spaces (Guerin et al., 2003). Relatedly, young Muslim women's

interaction with physical activity spaces shapes their experiences with sports. As such, exploring the concept of 'safe' sports spaces through a genderized and racialized lens is crucial.

The Notion of Safety

The environment and access to safe physical activity spaces play crucial roles in influencing people's engagement in physical activity. The important question that needs to be discussed is what makes a sporting space a 'safe' space. There is no unified definition for 'safe physical activity spaces.' The interpretation of what constitutes a 'safe' sporting space varies from one individual to another based on their experiences. Sociocultural norms and expectations appear to be one of the main contributors to constructing the meaning of safe physical activity spaces (Brady, 2005; Green & Singleton, 2007; Abdulwasi et al., 2018). Brady (2005) defines 'safe' space as a space that "includes emotional and psychological safety" with the "absence of trauma, excessive stress, violence (or fear of violence) and abuse" (p. 40). Thus, people's lived experiences, culture, etc., shape the attributes of safe physical activity spaces, which have a crucial role in promoting physical activity among individuals (Brady, 2005; Abdulwasi et al., 2018; Green & Singleton, 2007; Maxwell et al., 2013). Brady (2005) mentions three common characteristics that, when present, make a public space safe for many women. First, a safe space is culturally accepted by women and parents of young girls (Brady, 2005). Second, a safe space is conveniently located within the community, is well-known, and is regulated and led by women (not subject to intrusion by men) (Brady, 2005). Lastly, the space should not place women at emotional and physical risk and harm, and it should offer privacy to them (Brady, 2005). For instance, Muslim women in New Zealand (Guerin et al., 2003) and in Canada (Salma et al., 2020), viewed certain public spaces and neighborhoods as unsafe when discrimination and racism against them were present, thus discouraging them from engaging in physical activity at these spaces. This is because they felt there was potential emotional and physical risk or harm to them.

According to Green and Singleton (2007), space is comprehended as a place that is 'gendered, sexualized, classed and racialised'" (p. 111). Previous studies (Ahmad et al.,

2020; Thorpe et al., 2022; Maxwell et al., 2013) showed how the power structure in the sports world shapes sports spaces, giving privilege to specific groups and marginalizing other groups (Thorpe et al., 2022). For instance, the lack of diversity and representation of young Muslim women is not only evident in gyms but also in sports leadership roles. According to Ahmad et al. (2020), one of the key struggles in building cultural inclusion through sport is that “many sports leaders and policymakers are (white) men” (p. 639). Sports programs remain centered around masculinity, thus marginalizing young women from participating and taking leadership roles in sports (Kelly, 2011; as cited in Ahmad et al., 2020). Prior studies (Ahmad et al., 2020; Maxwell et al., 2013) showed that Muslim women have limited opportunities to take on leadership roles in sports and contribute to policy-making in sports. For instance, a female club manager has stated how physical activity spaces are male-dominated (Maxwell et al., 2013). The lack of diversity of staff in physical activity spaces, limits opportunities for women to exercise power and practice leadership in physical activity spaces, in turn influencing women’s engagement in physical activity who are attending these sporting facilities. It is crucial for physical activity spaces to showcase diversity by hiring staff from different genders, ethnicities, etc., to encourage all individuals to engage in physical activity in these spaces. To illustrate, successful Muslim women from the Lakemba Sport and Recreation Club were presented in a newspaper as role models for young Muslim women to “promote positive images of Muslim sportswomen dressed in Islamic sportswear” (Maxwell et al., 2013, p. 477). which encouraged young Muslim women in the community to participate in physical activity.

The power differential between genders and the lack of women in leadership roles in the sports sector remains an issue for both Muslim and non-Muslim women (Sibson, 2010; as cited in Maxwell et al., 2013). The presence of young Muslim women in leadership roles is not only necessary to encourage Muslim women to engage in physical activity at sports spaces, but it is also helpful to challenge the social norm, false stereotypes, and perceptions surrounding Muslim women, such as the false perception that they cannot take on leadership roles due to their religion or cultural background (Maxwell et al., 2013). As Freiler (2001; as cited in Maxwell et al., 2013) notes, “valuing diversity, difference, and commonalities by conferring recognition and respect on individuals and

groups” (p. 468) is one of the premises of social inclusion, which creates a sense of belonging and this is essential to create and maintain ‘safe’ physical activity spaces for everyone.

Sense of Belonging

Individuals who attend sports spaces view these areas as more than just physical locations they attend to engage in physical activity. Physical activity spaces are perceived as social and emotional spaces where individuals have an opportunity to connect and receive support from their community (Green & Singleton, 2007). For instance, a space attended by individuals where common identities are shared is perceived as a ‘safe’ space that is welcoming to them (Watt & Stenson, 1998). These spaces are called community spaces which are “places where these young women can convene with others and experience a sense of belonging and collective identity around age, gender, culture, faith, class and ethnicity” (Green & Singleton, 2007, p. 112). For instance, the mosque-based physical activity program created for South Asian Muslim women (Abdulwasi et al., 2018) is considered a community space because the South Asian Muslim women in the program share the same ethnicity, culture, and faith. The South Asian Muslim women expressed that it was easy for them to engage in the program because it was in their local community where they were able to engage with each other socially. Thus, these women felt a sense of belonging in this program and the space was more than a physical space for them to engage in physical activity. It was also an emotional and social space to connect with the community and socialize with other women. Therefore, physical activity spaces where women feel pleasure and are able to socialize and connect with the community are considered ‘safe’ spaces because they are associated with positive experiences and feelings.

Antonsich (2010) highlights the spatial dimension of belonging and states how a sense of belonging to a space is connected to the person’s emotional feelings that they attribute to a particular space. Thus, when an individual feels a sense of belonging in a sports space, they feel as if they are at home where symbolic meanings of security, comfort, and attachment are connected to this particular place (Antonsich, 2010). One of the ways to

increase a sense of belonging and community in sports spaces is to have positive images and role models of Muslim women portrayed in such spaces, as McCue and Kourouche (2010) suggested. As a result, young Muslim women will feel comfort, safety, and security and be encouraged to engage in physical activity in various sports spaces (Maxwell et al., 2013). Discrimination, inequity, inequality, and a lack of diversity are not seen only at the micro and meso levels but also at the macro or social level. Specific policies set by government and sports institutions can contribute to inequity and inequality among young Muslim women, hindering them from engaging in physical activity, as illustrated in the next section.

2.3.5 Public Policy Factors

Public policy factors are “local, state, and federal policies and laws that regulate or support healthy actions and practices for disease prevention, early detection, control, and management” (Rimer & Glanz, 2005, p. 11). In order to encourage people to adopt healthy behaviors and have a healthy lifestyle, it is recommended that policymakers adopt an upstream approach and implement policies at the population level that promote an inclusive environment (DiClemente et al., 2019). Therefore, implementing policies that provide adequate opportunities and meet the needs of the Muslim community may encourage young Muslim women to start or continue engaging in physical activity. For instance, many young Muslim women enjoy participating in physical activity and sports not just for personal enjoyment and health and may wish to advance their skills in a sport they like and adopt it as a professional career (Ahmad, 2011). However, due to the sports culture and specific policies and laws placed by sport’s governing bodies, some Muslim women feel discouraged from engaging in sports at the international level because they wear the hijab (Ahmad, 2011). As one of the young Muslim women mentioned in the study by Ahmad (2011), she “felt that the football culture in which she lived would not accommodate her wearing the hijab, which limited her football career” (p. 450). Another young Muslim woman participant mentioned that her coach, who is white and non-Muslim, reinforced the idea that wearing the hijab will not allow young Muslim women to compete at a higher level, even if they have the required skills and passion (Ahmad, 2011). Unfortunately, reinforcing the idea that there is no place for young Muslim

women to wear the hijab in top-level sports can discourage many women from engaging in sports. Some Muslim women might feel discouraged to continue engaging in sports, and others with a passion to start engaging might detract from their decision.

In April 2010, FIFA's decision to prohibit the wearing of hijab and ban Iran's national team from participation, mentioned earlier, may have influences and implications on Muslim women's engagement in sports at the international level in the future (Ayub, 2011). Hence, Ayub (2011) suggested that the examples of FIFA and other sports governing bodies banning the hijab and the participation of young Muslim women wearing it should be considered preventively by sports' governing bodies. Ayub suggests that "even if the hijab is not an issue yet" (2011, p. 49), governing bodies should have discussions regarding this matter to create policies that ensure the safety of the athletes while respecting the athletes' religious practices. By preparing ahead and creating policies that ensure an inclusive sports culture and environment, young Muslim women will be encouraged to engage in sports at all levels.

2.4 Summary

In summary, literature has shown that many factors at the micro, meso, and macro levels of the socioecological model intersect, influencing young Muslim women's engagement in physical activity. These factors include knowledge and perceptions of physical activity, gender, culture, social support, and policies set by organizations and sport's governing bodies. It is essential to be aware of the intersectionality of these factors and confront the stereotypes of Islam placed by the West to create inclusive, supportive, and encouraging environments for young Muslim women to engage in physical activity. While the literature review is extensive regarding Muslim women's engagement in physical activity, there are knowledge gaps that I aim to address in my research study (see introduction).

Chapter 3

3 Methodology and Research Design

This research study is designed to uncover and explore Muslim women university students' experiences with physical activity at Western University. Therefore, the epistemological and ontological positions and theoretical framework adopted in this research supported the objectives of my research study. In this section, I will discuss the paradigmatic approach and my positionality as a researcher adopting the social constructivist and relativist approach, followed by an overview of the theoretical framework grounded upon core tenets of Orientalism, critical race feminism theory, and the socio-ecological model, that I will use during the analysis and discussion of my research findings. Lastly, I will provide an overview of the research design and methods used to access, recruit, and sample potential research participants and discuss my research study's data collection and analysis processes.

3.1 Ontology and Epistemology: The Social Constructivist Paradigm

My research study examined the influence of sociocultural factors on physical activity engagement among Muslim women university students at Western University. Therefore, the social constructivist paradigm is the most suitable epistemological position for my qualitative research study. I explored how Muslim women university students with different lived experiences, beliefs, values, and perceptions navigate their environment and develop knowledge, meanings, attitudes and beliefs about physical activity and how these shape their engagement. Researchers who adopt the social constructivist paradigmatic position “hold that reality is constructed in the mind of the individual, rather than it being externally singular entity” (Ponterotto, 2005, p. 129). Thus, the social constructivist paradigm is premised upon a relativist ontology, which posits that multiple realities are constructed by individuals (Schwandt, 1994, as cited in Ponterotto, 2005). These various realities are socially constructed by people based on their lived experiences (Carpenter & Suto, 2008). So, concerning my research topic, multiple realities exist. Based on the preliminary literature review, it is impossible to assume that all Muslim women university students will have the same experiences when engaging in physical activity. My research participants will most likely have different experiences with

physical activity, depending on their Islamic beliefs, practices, cultures, and available opportunities. Therefore, the social constructivist epistemological paradigm and the relativist ontology grounded the design of this research project, aimed at exploring the diversity of lived experiences of Muslim women university students with physical activity, respecting their subjectivity.

3.2 Researcher's Positionality

Being a member of the Muslim community, a student at Western University, and close to the age of the participants, I was conscious and aware that this may influence how the participants viewed me and reacted with me during the interviews. Therefore, this may influence the research data. As a Muslim woman studying at Western University, there was a possibility that some of the participants might already have a friend relationship with me. In fact, I had two participants who were my friends. As such, this may influence my insider/outsider positionality. There was a risk that my role as a researcher may become unclear to some participants, which may affect my relationship with them. This risk was minimized by continuously engaging in self-reflexivity and answering all the questions and concerns the participants had about my positionality. I engaged in self-reflexivity by populating my 'Reflexivity Journal.' During the research process, whenever I felt the need to reflect, I opened the document and reflected on my thoughts, research process, interviews, my positionality, etc. Revisiting my reflections as the research proceeded helped me mitigate any potential ethical risks and biases.

Being an insider, a member of the Muslim community, and a student at Western University came with an advantage. Since I had a good connection with the Muslim community at Western University, I was able to easily access the Muslim community at the university to recruit participants. According to Reeves (2010), if the researcher was an insider, then access to the target community could be easily negotiated with the gatekeepers. Many researchers have found that if they have personal contacts with someone who can give them access to the target population, or if they have contact directly with the target population, then access to the target community can be easily negotiated (Duke, 2002, as cited in Reeves, 2010; Wilkes, 1999, as cited in Reeves, 2010). As a young Muslim woman Western university student who previously

participated in the Muslim Student Association's (MSA) events, I contacted the MSA team regarding the use of their social media platforms to recruit participants.

Although being an insider had its advantages, there was a risk that some participants might get confused about my role as a researcher, especially those with whom I may have a close relationship. For instance, one of the participants emailed me before consenting to participate to address her concerns about my insider positionality in the research. She was concerned that being interviewed by a young Muslim woman may bring biased answers from the participants as they may fear that they will be judged by me. Thus, it was crucial for me to engage in self-reflexivity before replying to her email. After engaging in self-reflexivity, I was able to address her concerns and explain my positionality in the research to her clearly by explaining that my shared identity and background will not influence the research data and how I viewed the participants as I was interested in learning about different cultures to hopefully in the future create inclusive sporting environment for all young Muslim women. I was successful in doing that, and the participant ended up participating and was more than happy to share her experiences during the interview. Therefore, it was essential for me as a researcher to engage in ongoing self-reflexivity about my insider-outsider position as I was conducting my research to avoid any confusion about my role as a researcher and to avoid my insider-outsider position getting mixed up and influencing my research data. Later in this chapter, I will talk about how I managed the risks associated with my researcher's positionality in the most ethical way (see section 3.9).

3.3 Theoretical Framework

3.3.1 Orientalism and Critical Race Feminism

The concept of Orientalism (see section 2.2.1) was utilized in my research study. Much of the research on Muslim women's lived experiences with physical activity highlights religion as a barrier to Muslim women's engagement in physical activity. However, this perspective can be problematic because it overlooks the relationship between theory and practice, suggesting that adhering to Western norms is hindered by Islamic practices, thus creating an incomplete narrative. Therefore, by addressing the concept of Orientalism and

using it to analyze the data, I was able to understand how the West's perceptions, stereotypes, and misconceptions of Islam and the Muslim community may shape young Muslim women's engagement in physical activity. The concept of Orientalism allowed me to identify and make sense of some of the sociocultural factors that influenced young Muslim women's experiences with physical activity, for instance, perception of safety in physical activity spaces and discrimination.

In addition, Critical Race Feminism (CRF) theory (see section 2.2.2) was used in the research study to explore and understand the unique experiences of young Muslim women in relation to their experiences with physical activity and sports. The study aimed to understand how young Muslim women's ethnic, gendered, racialized, and religious identities influence their engagement in physical activity. Thus, by utilizing CRF and Orientalism, I was able to examine and grasp the unique experiences of young Muslim women by placing them in the center of the discussion and showcasing their unique voices. Since CRF relies on individuals' stories, is often implied in narrative inquiry, and places marginalized women in the center of the discussion, CRF was a good fit for my research since I conducted episodic interviews. This allowed me to illuminate Muslim women's unique voices and experiences. Thus, CRF was a useful theoretical framework to analyze the stories mentioned in the episodic interviews to showcase the unique stories.

As mentioned earlier (see section 2.3), the Muslim community is a heterogeneous group, meaning Muslim women will have different experiences because they have unique identities. The use of CRF and Orientalism allowed me to explore how perceptions about race, ethnicity, and religion of Muslim women are constructed by the West and how this social construction and perceptions of Muslim women directly or indirectly shape their experiences with physical activity. These theories were useful in deconstructing racist stereotypes and narratives about young Muslim women, thus moving beyond simplistic sociocultural explanations to consider other factors, such as racism and discrimination in physical activity spaces, that inform their identities and engagement with physical activity.

3.3.2 Bronfenbrenner's Socioecological Model

I used the socioecological model in my research because this model has been used successfully in the field of health promotion. It allows health promoters to use every available resource at the micro, meso, and macro levels to foster behavior change in the community (DiClemente et al., 2019). The socioecological model helps health promoters identify the underlying and interconnected factors influencing certain issues (e.g., lack of physical activity) so that these can be acted upon to foster behavior change and improve the health of the community (DiClemente et al., 2019).

The socioecological model was helpful because it directed me through the design of my interview guide. It helped me create interview questions that allowed me to explore various personal, social, and cultural factors that may influence Muslim women students' engagement with physical activity studying at Western University. By applying the socioecological model, I was able to ask questions to explore intersectional factors at the intrapersonal, interpersonal, organizational, community, and public policy levels. The socio-ecological model was used to explore the literature review and design the interview guide, making sure that a variety of potential factors at the macro, meso and micro level were explored. I did not use it in the data analysis process because I wanted to focus on using only Orientalism and critical race feminism as analytical frameworks for my research for the reasons mentioned earlier (see sections 2.2.1, 2.2.2, and 3.3.1).

In this project, the socioecological model helped me identify micro, meso, and macro factors that shaped the physical activity experiences among Muslim women students studying at Western University. The model also helped me understand prior research findings on this topic. Many factors influence the decision of whether to engage or not engage in physical activity. It is impossible to say it is a personal preference.

Intersectionality is a critical concept in health promotion that recognizes that behaviors and health outcomes are shaped by the interaction of multiple factors at several dimensional levels (DiClemente et al., 2019). Therefore, by applying the socioecological model during the discussion of the literature, it guided me through the data analysis process and helped me understand how different factors, such as knowledge, attitude, perceptions, family, social support, gender, space, and other factors at a multi-

dimensional level, may have influenced Muslim women students' engagement in physical activity. In addition, the application of the socioecological model to my thesis will be helpful for health promotion specialists and public health workers who will read my research in the future because it will help them understand the sociocultural factors that influence the physical activity levels of Muslim women university students, the possible health outcomes associated with physical inactivity if adequate opportunities are not available to Muslim women students at Western University, and potential strategies and interventions that can be developed at the university (and similar contexts) to provide Muslim women students adequate opportunities that will encourage them to engage in physical activity and maintain a healthy lifestyle.

3.4 Accessing, Sampling, and Recruiting Participants

Students at Western University who identified as Muslim women were potential interviewees for my research study. I gained access to the community through the Muslim Student Association (MSA) club at Western University. There were multiple important dimensions that I kept in mind when accessing, sampling, and recruiting potential research participants. First, as illustrated earlier (see Chapter 2 for examples), cultural background is a significant factor in the engagement of Muslim women in physical activity, as confirmed by previous studies (Abdulwasi et al., 2018; Dagkas & Benn, 2006; Lenneis & Pfister, 2017; Miles & Benn, 2017; Zaman, 1997; Aljayyousi et al., 2019). Therefore, I wanted to recruit Muslim women students from different countries and cultures, such as Asian Muslims, Pakistani Muslims, etc. This was done by sending the recruitment post to the MSA Whatsapp group chat, in which Muslim women from a variety of cultures participated. The recruitment of young Muslim women from different cultures showcased how cultural beliefs and practices influence Muslim women students' experiences with physical activity and how culture intersects with other factors and dimensions to shape Muslim women students' engagement in physical activity. Second, my goal was to recruit only Muslim women students to explore how gender shapes their experiences with physical activity. According to the preliminary literature (see section 2.3.1), young Muslim women are less likely to engage in physical activity when compared to young Muslim men (Burrmann & Mutz, 2016). Lastly, the age of my

potential participants is important. Therefore, I recruited participants below the age of 30 because, based on a preliminary literature review, some Muslim women above the age of 30 are most likely not to participate in physical activity due to family commitments and not having time to participate in physical activity (Miles & Benn, 2017).

In order to access my group of interest, it was vital to get in touch with the right person who will help me get access to the potential research participants, a ‘gatekeeper.’ Therefore, I went to the MSA’s annual general meeting event that was conducted in September 2023. In that event, I talked to the VP of communications to get permission to use their social media platforms. I was able to post a recruitment post on their Instagram stories and sisters WhatsApp groupchat. In addition, flyers were posted at the recreational center at Western University, a recruitment post was uploaded to my LinkedIn profile, and the snowball sampling method was used where potential participants were asked to invite people they knew who might be interested in participating in the research study. Lastly, I contacted the Arabic and Quran professor at Western University and went to his classes and introduced my research study to potential research participants who were recruited in the fall 2023 term.

The potential participants (n =11) (see Table 1) were invited to come to the research team’s lab on campus to complete the screening form, confirm their eligibility to participate in the study, and read the letter of information document. I explained the research study in detail and ensured that the participants understood the nature of the study. Once confirmed that the participant met the eligibility requirements, the participants were asked to sign the consent form.

3.5 Research Methods

For my research study, I used semi-structured interviews as the main data collection method. The semi-structured interviews provided semantic knowledge, encompassing a collective understanding of concepts the participants have gathered and developed from their lived experiences (Flick, 2022).

Table 1: The Participants' Demographics

| Participants' Pseudonym | Ethnic Background | Student Status |
|-------------------------|-------------------|-----------------------|
| Leena | Jordan | Domestic student |
| Zeina | Pakistan | Domestic student* |
| Yasmine | West Africa | International student |
| Omayma | North Africa | Domestic student |
| Jana | Jordan | Domestic student |
| Eman | Pakistan | Domestic student* |
| Sara | Pakistan | Domestic student |
| Parvina | Southwestern Asia | Domestic student* |
| Dana | Jordan | Domestic student* |
| Karima | West Asia | International student |
| Maha | Asia | Domestic student* |

Note 1: Students marked by an asterisk (*) are Canadian citizens; however, they were either born in Canada but lived in another country for some time and came to Canada when they started university or immigrated to Canada before attending university.

Note 2: For some of the participants, the continent was mentioned instead of their home country because I had one participant from the country, and for ethical reasons, the continent was mentioned instead of the country so that they are not easily identified. That being said, I know all the countries of origin of all the participants.

Semi-structured interviews also allowed me to collect qualitative, open-ended data to explore the participants' lived experiences, thoughts, perceptions, beliefs, and knowledge about the research topic (Flick, 2022). Also, by applying the socioecological model when designing my interview guide, I was able to ask a broad scope of questions during the interview about various order of factors that may influence participants' engagement in physical activity. Using semi-structured interviews also allowed me to prepare follow-up questions if the participants' responses to one question were not comprehensive enough. This method also provided me with the flexibility to explore new topics or factors that were useful to answer my research questions (Flick, 2022).

Combined with semi-structured interviews, I also used episodic interviews as one of the main data collection methods. Episodic interviews uncover insights into specific moments in the participant's life, offering detailed data about their past lived experiences at a particular time (Flick, 2022). This approach allowed me to explore the participants' experiences with physical activity because such interviews provide deep, nuanced into the experiences of this demographic and uncover historically significant issues that might be overlooked using other data collection methods (Flick, 2022). My potential research participants are considered a minority group. Therefore, by conducting episodic interviews, I captured the detailed stories of young Muslim women at Western University. The episodic interviews provided a deeper understanding of the heterogeneity of the Muslim community. This helped me understand how the differences among Muslim women students at Western University shape their engagement in physical activity at Western.

3.6 The Data Collection Process

A qualitative research design was applied to design individual face-to-face, semi-structured, episodic interviews and ask open-ended questions to the participants to capture detailed stories (see interview guide, appendix D). The visual timeline was used during the interviews because it is a good way to map the importance of various events and understand how the participant's experiences with physical activity may have changed over time (Green & Thorogood, 2018). The participants were asked to draw a line and add moments and events regarding their experiences with physical activity before and after coming to

Western University. With probing questions, this strategy helped document the intersectionality of sociocultural factors and how these factors may have changed the participant's experiences with physical activity if there is a change, and it helped them add more details to their stories.

In addition to visual timelines, the participants were asked to bring any photos and/or objects that show their experiences with physical activity if they were comfortable doing so. Only two participants brought photos with them. The purpose of the photos was to prompt discussion during the interview and generate richer data. It helped the participants add more details which provided richer stories. These photos were not collected from the participants and were not disseminated with the research results.

Before and during conducting the interviews, the participants were asked to reflect on how their gender influences their participation in physical activity. Interviews were conducted once the participants were recruited. I conducted one face-to-face individual interview with each participant for about 60 minutes at a time convenient for them. The interviews were conducted at Western University in a private meeting room in the research lab to ensure the safety of both the researcher and the participant.

3.7 Data Analysis

A thematic analysis was used to capture, interpret, and report similar patterns and dissonant aspects in the participants' stories. This method of data analysis was used due to its emphasis on mapping and interpretation and presenting critical elements of the participants' experiences and stories (Green & Thorogood, 2018). Since the focus of this research was to explore the intersectionality of individual, cultural, social, and environmental factors influencing young Muslim women's experiences with physical activity and how they construct their knowledge and attitudes about physical activity, this method of data analysis was proper. Thematic analysis is not just about presenting the data; it allows the researcher to provide rich and thick descriptions of the participants' views and experiences (Green & Thorogood, 2018). In addition, this method of analysis allows the researcher to develop conceptual definitions of concepts presented in the data, explore associations between attitudes, beliefs, behaviors, and experiences, develop

explanations of the phenomena, and contribute to the production of new theories and ideas (Green & Thorogood, 2018).

Before starting the data analysis process, all interview recordings were transcribed. In the transcripts and in this paper, the participants' names were anonymized using pseudonyms. After generating the transcripts, they were reviewed to check for and fix any errors that might have been generated during the transcription process. Green and Thorogood (2018) outlined four steps of the thematic analysis process: (1) familiarizing yourself with the data; (2) identifying themes; (3) coding the data; (4) organizing the codes and themes. Firstly, I started by listening to the interview recordings more than once and going over the transcripts while listening to the recording to get a sense of the data. Listening to the audio while reading the transcript allowed me to get a feel for the data by listening to the tone and expressions while talking. In addition, I wrote brief notes on the transcripts, including my recurring thoughts, thinking process, meanings of the data, demographics, etc. This formed the basis of the next step, identifying common themes.

I began to identify common themes by going through the transcripts manually. An abductive approach was used where themes are “derived from the bringing together of multiple theoretical insights” (Green & Thorogood, 2018, p. 252), as well as deriving new themes from the interview transcripts. Simply put, an abductive approach combines an inductive approach, where new data is collected and analyzed from text, and a deductive approach, where data is collected and analyzed from prior theory (Green & Thorogood, 2018). I started creating a thematic structure where I wrote down the relevant and important themes I found. After generating an initial list of common themes, the next task was coding the data. I refined the themes into a set of codes using NVivo software. The first thematic structure (see Figure 2) was created from there. It presented the themes at a micro, meso, and macro level. The inspiration came from Bronfenbrenner’s socioecological model (see p. 15), which I used to structure the literature review section and the interview guide.

Upon reviewing the first thematic structure, I created a second thematic structure (see Figure 3) that entails more analytical themes that showcase the participants' stories and

experiences. Instead of organizing the thematic structure at micro, meso, and macro levels, it was best to structure it into two main themes captured in the interview transcripts. This decision was taken for two reasons: (1) some factors at the micro and macro levels in the first thematic structure overlapped, so it was best to group them into one section to avoid repetition; (2) it was best to organize the themes into two sections to align with the research objectives and purpose (see introduction) and better illuminate the stories and experiences of young Muslim women with physical activity.

- 1. Muslim women and the individual self**
 - a. Knowledge and education about physical activity
 - b. Religious beliefs and practices
 - c. Personal experiences
- 2. Muslim women and physical activity spaces**
 - a. Female geographies/sports spaces
 - i. Safe spaces
 - b. Care for women's sports spaces
 - i. Accessibility
 1. Lack of women-only spaces
 - ii. Inclusivity
 1. Dress codes – policies and bans
- 3. Muslim women and the society**
 - a. Culture
 - b. Social network and support system
 - c. Islamophobia/Racism/Discrimination/Stigma

Figure 2: First Thematic Structure

- 1. A Journey into Exploring the Fundamentals: Unraveling Muslim Women's Experiences with Physical Activity**
 - a. The Individual Self
 - i. Unveiling identities
 - b. Knowledge and Education
 - c. Religion
 - d. Cultural Norms and Expectations
 - e. Social Network
- 2. Discovering and Negotiating Spaces: Muslim Women Accessing Physical Activity Spaces**
 - a. 'Safe or not safe'... That is the Question?
 - i. Muslim Women's Perceptions of Safe Spaces
 - ii. Sense of Belonging
 - iii. Gym Culture
 - iv. Inclusivity
 - v. Neighbourhood
 1. Racism and Islamophobia

Figure 3: Second Thematic Structure

Green and Thorogood (2018) stated that the last step of thematic content analysis is to organize the codes and themes using the cut-and-paste method. The interview transcripts were printed and analyzed one more time using this technique. New sub-themes were found using this method, and thus, a third thematic structure (see Figure 4) was created to include the new sub-themes, which are essential to present the themes of my research clearly.

1. A Journey into Discovering the Fundamentals: Exploring Muslim Women's Experiences with

Physical Activity

- a. The Individual Self: Negotiating Identities
- b. Knowledge and Education
- c. Religion
- d. Cultural Norms and Expectations
- e. Social Network
- f. Environment

2. Discovering and Negotiating Spaces: Muslim Women and Physical Activity Spaces

- a. 'Safe or not safe'... That is the Question?
 - i. Muslim Women's Perceptions of Safe Spaces
 - ii. Sense of Belonging
 - iii. Gym Culture
 - iv. Inclusivity and Accessibility
 - v. Community Spaces
 - vi. Diversity
 - vii. Representation of Muslim Women

Figure 4: Third Thematic Structure

Lastly, before starting to write the discussion section, I did a final review of the third thematic structure in detail. After reviewing, I felt the need to restructure and create a fourth thematic structure (see Figure 5) to best represent the data and discuss it in a way that will make sense to the reader. I noticed that my findings are catered around three main themes: (1) life experiences, (2) identity, and (3) spaces. The way participants negotiated their identities and negotiated and constructed safe physical activity spaces was mainly based on their lived experiences from childhood until now. As such, I decided to start the discussion of my findings by first illuminating the light on the participants' unique lived experiences to provide the reader insight into the fundamentals before diving deeper into complex topics such as identity and safe physical activity

spaces. This way, the reader will have good knowledge and a better understanding of the way young Muslim women negotiate their identities and construct the meaning of safe physical activity spaces. Since the Muslim community is a heterogeneous group, it is best to start the discussion by showcasing the unique voices and lived experiences to set the stone before talking about complex themes. Thus, the reader will have enough context to judge and interpret how young Muslim women negotiate and construct their identity and physical activity spaces.

1. A Journey into Discovering the Fundamentals: Exploring Muslim Women’s Experiences with

Physical Activity

- a. Religion
- b. Cultural Norms and Expectations
- c. Social Network

2. Unveiling Identities

- a. Knowledge of Identity
 - i. Knowledge of the Body
 - ii. Knowledge of Self
- b. Maintaining Various Identities

3. Discovering and Negotiating Spaces: Muslim Women and Physical Activity Spaces

- a. ‘Safe or not safe’ ... That is the Question?
 - i. Muslim Women’s Perceptions of Safe Spaces
 - ii. Sense of Belonging
 - 1. Community Spaces
 - 2. Diversity
 - 3. Representation of Muslim Women
 - iii. Gym Culture

Figure 5: Fourth Thematic Structure

3.8 Data Trustworthiness Measures

During the data collection and analysis process, the following measures were taken to ensure the trustworthiness of the data.

Credibility

To ensure the credibility of the research, I made sure to provide a thick description of the data (Tracy, 2010) by including as much detail as possible in the research findings and analysis section to ensure there is enough context for the reader to understand and judge the interpretation of my findings. In addition, multivocality is another characteristic to ensure the credibility of the research (Tracy, 2010). As such, I included multiple and varied voices in my data findings and discussion section, instead of including information from one participant only.

Sincerity

Sincerity refers to the “notions of authenticity and genuineness” of the research (Tracy, 2010, p. 841). The sincerity of the research study is determined by how authentic and genuine the research findings are, where the researcher is honest and transparent about their own biases, goals, and weaknesses, and how these played a role in the methods and the process of the research (Tracy, 2010). To ensure the sincerity of my research study, I engaged in ongoing self-reflexivity (Tracy, 2010) during the research process to ensure the study was conducted in a sincere manner and ethical considerations were addressed. In addition, I made sure to be transparent about the research process and methods used to conduct the study (Tracy, 2010).

Validity

To ensure the validity of the study, I compared and contrasted the data sets to make sure my findings were valid and aligned with the research objectives and purpose, engaged in self-reflexivity to make sure my findings were not influenced by my insider positionality and provided a thick description of the data (Green & Thorogood, 2018).

3.9 Ethical Considerations

As a researcher, I am conscious that there are ethical considerations I need to be aware of. To begin with, due to having a similar background with the potential research participants, being a young Muslim woman, there was a possibility that some participants might feel hesitant to share some of their experiences or answer specific questions during the interview because they might feel judged. Because of the differences in how Muslims practice Islam, for example, wearing the hijab or not, there could be some sensitivity around specific questions, especially those related to how religion might influence young Muslim women's engagement in physical activity. Therefore, to minimize the fear of being judged and ensure the participants are comfortable during the interview, I explained and assured them, whenever I felt this was warranted, that my position as a young Muslim woman would not affect how I saw them. I assured the participants that the interviews were a safe space to share their stories and that they are always free not to answer questions that cause discomfort. Also, if at any time during the interview, I felt the participant was uncomfortable, I made sure to proceed with caution, giving them time to reflect and to decide whether they want to respond and avoid probing and asking follow-up questions. Lastly, I showed empathy during the interviews through my body language and also by sharing a little bit from my own experience which showed the participants that I was interested to explore the different experiences.

Next, I was aware that the participants will have different cultures; thus, I was inclusive and respectful of the different cultural norms and diversity during the interviews. In such interviews, it is complex for the researcher to ensure an ethical, respectful, and meaningful relationship between them and the research participants during the interview (Perryman, 2011, as cited in Crown & Danaher, 2019; Thomas et al., 2014, as cited in Brown & Danaher, 2019). Brown and Danaher (2019) mentioned three fundamental principles, the CHE principles, for the researcher to follow during interviews to respect diversity and inclusion during interviews. The three principles are connectivity, humanness, and empathy (Brown & Danaher, 2019). First, connectivity entitles the researcher to connect with the target population to build rapport with the potential participants and strengthen their relationship before the interview (Brown & Danaher,

2019). As a young Muslim women student at Western University, I easily connected with the Muslim women students on campus. I attended the first few events organized by the Muslim Student Association (MSA) club on campus to easily gain access to my target population and I built rapport with the potential research participants. Second, humanness recognizes that both the participants and researchers are givers and receivers of information (Brown & Danaher, 2019). For instance, I might have a shared background, culture, beliefs, values, and experiences with the participants. I shared relevant experiences with the participants when I felt this will help me connect with them and build rapport and trust. This also showed the participants that during the interviews, I was open to listening and learning about new cultures. However, I was careful not to provide too much information about myself. I cannot take a conversation like this too far for the following reasons: (1) providing too much information about my own experience can influence the participants' responses; (2) there might be confusion about my role as a researcher and being a 'share of information' (I have to avoid mixing up my role as a researcher and as a 'sharer of information' / insider-outsider position). So, when I shared anything with the participants about my experiences, I was careful because it can get tricky, and my research can go in a different direction. Third, empathy is about appreciating the perspectives, perceptions, cultural norms, and world of 'the other' (Brown & Danaher, 2019). Therefore, body language was critical during the interview to show my interest in learning about their experiences. Lastly, in addition to applying the CHE principles, I engaged in ongoing self-reflexivity before, between, and after the interviews to ensure that I did not offend anyone's cultural beliefs and practices. Ongoing self-reflexivity also allowed me to avoid possible risks associated with following the CHE principles.

Additionally, because some of the participants were already my friends from university, there was a risk that they may feel pressured to participate in the study. Therefore, to ensure that their decision to participate in the study was voluntary and based on their free will, I assured them during the information session and before they sign the consent form that their participation is voluntary and their decision to participate or not will not affect our relationship as friends. In addition, having a friend relationship with some potential participants may raise confusion about my insider-outsider position. Those I have close

relationship with might view me as an insider, but those I do not have close relationship with might view me as an outsider. Therefore, during the study, I engaged in ongoing self-reflexivity to discern the best strategies to manage my insider-outsider position. I ensured that all the participants were clear about my researcher's role and that there was no confusion about my role, my responsibilities, and the boundaries of the research relationship regarding confidentiality.

Moreover, the participants were given a choice of being interviewed at a public or private space on campus, based on their convenience. Some participants may not feel comfortable or safe to be interviewed in a public space on campus. Therefore, they had the choice to be interviewed in a private space. The private space was the meeting room in the research lab to ensure the researcher's safety.

Finally, sometimes, I worked on my research from home. Therefore, it was crucial to inform the participants that study records will be transported outside Western University, and all documents and data will be protected and secured by passwords to ensure their privacy and confidentiality. To conclude, I continued to engage in continuous reflexivity throughout the research to find ways to manage the privacy of all participants and the integrity of the research.

Chapter 4

4 Findings and Discussion

The research study was designed to bring to light the unique voices of young Muslim women university students and explore their experiences with physical activity and sports. It also aimed to understand how these women negotiated and maintained their identities in physical activity spaces. The study uncovered the complex dynamics of belonging and otherness, as well as inclusion and exclusion in sports, providing insights into the construction of ‘safe’ physical activity spaces and their influence on young Muslim women’s engagement in physical activity. This chapter will present the research findings, followed by a detailed discussion of the data. The themes will be summarized and discussed individually, with their relevance, related research findings, and detailed analysis. The social constructivist paradigm and the theoretical lenses of Orientalism and Critical Race Feminism (see sections 2.2.1 and 2.2.2) will be used to interpret the research findings. Finally, a concise summary of the findings and discussion will be provided, inviting the audience to engage with and reflect upon the research findings actively.

4.1 Main Themes

The data analysis of the responses of the young Muslim women university students to the interview questions, which were designed using the socioecological model (see section 2.3), generated three main themes and six sub-themes. The three themes are: (1) life experiences of young Muslim women university students, (2) identities, and (3) spaces. The first theme has three sub-themes: (1) religious teachings, (2) cultural norms and expectations, and (3) social support. The second theme has two sub-themes: (1) knowledge of identity and (2) maintaining and negotiating various identities. Lastly, the third theme has one sub-theme: spaces and the notion of safety.

4.2 A Journey into the Fundamentals: Exploring Muslim Women’s Experiences with Physical Activity

As a young Muslim woman, I recognize the heterogeneity in the Muslim community, acknowledging the diverse spectrum of beliefs, practices, and experiences. The

heterogeneity of the Muslim community was evident in prior research studies, which showed differences in beliefs and practices among young Muslim women, therefore resulting in distinct experiences with physical activity among this particular group (Lenneis & Pfister, 2017; Dagkas & Benn, 2006; Miles & Benn, 2016; Ali et al., 2015; Nakamura, 2017; Strandbu, 2005). Thus, it is crucial to start by showcasing young Muslim women's different and unique experiences with physical activity to help us understand how and why young Muslim women construct meaning around physical activity before delving into complex concepts, such as identity and safe physical activity spaces. The research findings displayed three main factors that shaped the life experiences of young Muslim women: religious practices, cultural norms, and social support. These factors played a role in influencing attitudes, behaviors, and access to opportunities in the community. By exploring these factors in the following sections, a detailed insight into the nuanced experiences of young Muslim women university students will be gained, which will help in understanding how identities are rooted in the interconnected relationship between their religious, ethnic, gendered, and physically active identities, negotiated, and maintained in physical activity spaces.

4.2.1 Engagement with Religious Teachings and Practices

Religious teachings significantly influenced young Muslim women's engagement in physical activity. It played a significant role in shaping the attitudes, access to opportunities, and challenges related to engagement in physical activity among young Muslim women who participated in the study. Religious teachings influence engagement in physical activity in multiple dimensions, that is, not just in terms of faith itself, such as complying with Islamic practices when engaging in physical activity, but also in other dimensions, such as religion-based discrimination that young Muslim women might experience in the community. Religious practices intersect with many factors, such as culture, gender, society, policies, and the environment, thus creating multiple dimensions of religion-based influences (Ahmad, 2011). Hence, by delving into the religious dimensions of young Muslim women's experiences with physical activity, we can gain valuable insight into how religious practices influence experiences with physical activity,

challenge false stereotypes, and gain knowledge of the needs of young Muslim women to provide inclusive physical activity opportunities in the community for this demographic.

To begin with, it was essential to ask the participants about their views on how religion may have (or not) influenced their perceptions and attitudes regarding their engagement in physical activity. My research study showed that most participants stated that religious practices positively influence them to engage in physical activity. They reinforced the idea that Islam encourages Muslims to adopt a healthy lifestyle and take care of their health and body, and one way to do so is by engaging in physical activity. Leena, one of the participants in the study, said: *“Islam teaches you to take care of yourself. It teaches you to live a healthy lifestyle ... And to do that, you know, partaking in healthy practices such as physical activity, that would be a way to do it.”* Karima, another participant, said: *“it (she means her religion) encourages being physically active and that’s very obvious in the religion.”*

Zeina, a participant who does not wear the hijab, shared a personal insight into her practice of religion while engaging in physical activity. She described her approach as making everything God-centric, stating:

I do my best to connect with Lord ... you make everything God-centric ... in that way, I sort of try and connect my physical activity to him ... I try to connect everything back to that just because it makes you feel better about yourself.

For Zeina, physical activity is a health practice and a form of worship. Her experience adds a unique perspective to the broader theme of religion and physical activity among young Muslim women.

That being said, it may be that certain factors create a false perception in Global Northern society where religious practices are seen as a barrier for young Muslim women to engage in physical activity. One of the reasons could be the lack of knowledge about the Muslim community and their needs. The “meanings and interpretations of religion” vary in different contexts, and one of the interpretations of religion is that religious practices may be seen as a constraint on sports (Burrmann & Mutz, 2016, p. 42). This relates to the

concept of Orientalism, where false ideologies and meanings are constructed regarding the Orient (Said, 1979; Said, 2016). So, in the Global Northern context, an image of the hijab is constructed where it is seen as a barrier to Muslim women's engagement in sports. For instance, Parvina, a young hijabi Muslim woman who engaged in sports, said: *"I realized that even the coach in the team would kind of rather that you're not wearing a hijab when you're playing the sport."* Parvina's coach views the hijab as a safety hazard; therefore, the coach does not want to risk having Parvina on the team since they are responsible for Parvina's safety. As a result, Parvina felt restricted in terms of her options regarding her engagement in sports. From a Muslim woman's view, hijab is not seen as a barrier to their engagement in physical activity. In fact, they view the environment as a constraint to their engagement in sports. For instance, Leena, a hijabi participant, said:

My hijabi and my Muslim sisters I see a lot of them engaging in physical activity and like I realized, like I used to think that hijab limits you but like looking at them, I realized no it doesn't. Of course, your environment limits you, and I realized that it's something that I can do (she meant she can do physical activity while she is wearing the hijab).

Similarly to Leena, other participants expressed the challenge of finding the right environment to practice sports while complying with their religious beliefs. Sara, one of the participants, expressed her struggle to find the right environment. Sara said: *"There's never really the right area for me to work out and the right environment for me to work out ... I'm looking for availability, and I'm unable to find that availability."* Sara expressed the need for an inclusive environment that meets her religious beliefs. This need was also expressed by Yasmine, a hijabi research participant, who said: *"creating an environment to foster these other beliefs would actually go a long way."* The lack of awareness about what an inclusive sporting environment should look like for a young Muslim woman may result in creating negative associations with the hijab in the West, where religious practices and hijab are seen as barriers to young Muslim women's engagement in physical activity. However, participants in my research study and prior studies (Jiwani & Rail, 2010) expressed that the lack of appropriate and inclusive sporting facilities that foster and include their religious beliefs hinders them from

engaging in physical activity. Therefore, false stereotypes must be challenged by raising awareness about the needs of young Muslim women to create inclusive physical activity opportunities for them.

Although most participants mentioned that the environment restricts their engagement in physical activity, not the hijab, Parvina had a unique experience that was different from the rest. As mentioned earlier, Parvina viewed the environment as a restriction but also viewed her hijab as a restriction to her engagement in physical activity. In my observation and analysis of the conversation I had with Parvina and after comparing it with the conversations I had with the other participants, Parvina seemed to view the hijab as a restriction due to what she experienced when she came to Canada. Parvina had negative experiences both from the Muslim and non-Muslim communities when it came to her engagement in physical activity. As mentioned earlier, her coach did not support her wearing the hijab when she played sports. In addition, Parvina said: *“I was unfortunately constantly bullied in my team for wearing hijab and playing sports by the other girls who were there.”* Parvina was the only participant who mentioned her experiences with bullying as a young hijabi woman at her school. Parvina was criticized by her Muslim friends for playing sports and wearing the hijab and by her non-Muslim friends for wearing the hijab and looking different from other girls on the sports team. Thus, she faced many challenges when playing sports because she wanted to integrate with the Canadian community and simultaneously engage in sports while practicing her religious beliefs. Parvina felt isolated because of her hijab and saw a lack of support from both her Muslim and non-Muslim fellows. Therefore, she viewed the hijab as a restriction.

The conversations I had with the participants revealed that religion is seen as a way of life and a motivator for young Muslim women to engage in physical activity. The participants clarified that their religion requires them to care for their bodies by engaging in physical activity while maintaining their religious beliefs, such as maintaining modesty when playing sports. Therefore, I argue that these statements reflect the beliefs of some young Muslim women. However, it was also clear that the Muslim community is a heterogeneous group, and I came to understand that the past experiences of young

Muslim women shape their current attitudes concerning religious practices and engagement in physical activity. The participants at large viewed the environment as a restriction to their engagement in physical activity because it did not meet their needs as hijabi Muslim women. Therefore, they looked for alternative ways to engage in physical activity, such as participating in opportunities organized by the Muslim community. On the other hand, Parvina had a different view where she viewed both the environment and her hijab as restrictions because of the criticism she received from her Muslim relatives and being bullied by her non-Muslim classmates for looking different from the other girls on her team. As a result, it was challenging for her to maintain her religious and physically active identity, without one affecting the other.

It is essential to add to existing literature the unique voice of young Muslim women to present the challenges they face when engaging in physical activity in relation to their religious practices. In addition, it is crucial to know that religious practices influence engagement in physical activity at multiple dimensions to understand how each young Muslim woman constructs meanings when it comes to their engagement in sports. This will provide knowledge about Islam's view on physical activity to Global North countries and challenge false stereotypes, such as religion and hijab are barriers to Muslim women's engagement in sports. In addition, for a change to occur, the authentic experiences of young Muslim women concerning religion and engagement in physical activity must be presented to provide policymakers and health promoters an idea of what needs to be done to ensure young Muslim women are practicing both their rights to engage in physical activity while adhering to their religious beliefs and facing any challenges or struggles to do so.

For me, it was essential to explore in further detail the variety of factors that have resulted in the different experiences of young Muslim women to understand how young Muslim women are continuously challenged to choose between practicing their right to engage in physical activity and their right to adhere to their religious beliefs. As such, I moved further to explore ethnic backgrounds. Ethnic backgrounds and cultural norms are another factor that contributes to the different constructions of meanings regarding facilitators and barriers among young Muslim women regarding their engagement in

physical activity (Jiwani & Rail, 2010; Ahmad, 2011; Burrmann & Mutz, 2016; Aljayyousi et al., 2019). Religious practices and cultural expectations often get intermixed. As a result, we see heterogeneity and different constructions of meanings among young Muslim women. In the next section, ethnic backgrounds will be explored in detail to understand young Muslim women's experiences with physical activity.

4.2.2 Ethnic Backgrounds

According to Dagkas and Benn (2006), Islamic culture refers “to the lived experience of being a Muslim” (p. 23). So far, it appears that young Muslim women have different lived experiences, and they construct meanings and make sense of their lives differently. In some Muslim communities, what separates cultural norms and religious practices seems to be obscured often. The definition of culture I am using for the context of this research is that culture refers to “a set of characteristics, behaviors, rituals, and beliefs that are used to describe a group of people who: (a) live within (or originated from) a specific country or geographical region” (Myers-Walls et al., 2006, as cited in Aljayyousi et al., 2019, p. 3). So, in this section, when I mention the term culture, I am referring more to ethnic backgrounds and cultural norms and expectations. Religion is part of culture, but religious practices and teachings sometimes differ from cultural norms and expectations. For instance, religious teachings encourage young Muslim women to engage in physical activity, but due to cultural norms associated with their ethnic background, they may be hindered from engaging in physical activity. I want to note that when the participants mention that religion is different from culture, they do not mean that religion is separate from culture; rather, they mean that religious teachings are different from their cultural norms and expectations.

In my research study, the sample study was culturally diverse. It was evident that cultural norms and expectations vary across ethnicities. As a result, the cultural background of an individual can facilitate, hinder, or have no influence on one's engagement in physical activity (Jiwani & Rail, 2010; Ahmad, 2011). Moreover, cultural norms and religious practices can be intermixed in some countries, resulting in different interpretations of religious teachings (Burrmann & Mutz, 2016). Thus, it was crucial to understand the cultural norms and expectations to know how young Muslim women's needs differ across

cultures to accommodate everyone and create inclusive environments. When exploring the influence of culture on young Muslim women's engagement in physical activity, it is essential to consider the idea of adaptation to a new culture. It is crucial to understand how one's own culture influences one's engagement in sports and how the society's culture they live in may influence one's perceptions and attitudes regarding one's engagement in physical activity.

In some cultures, engaging in physical activity, especially for young Muslim women, is not the norm. For instance, Leena, who is from the Middle East, said: "*My sister and my mom and my cousins (female cousins), they're not too physically active because, in their culture, it's not really something that women aren't really encouraged to do.*" For Leena, it is evident that the lack of encouragement in her culture does not motivate women to engage in physical activity. I think this is because women's participation in sports is not seen as the norm in her culture. Jana, who is from Jordan, the same as Leena, and is a serious soccer player, said: "*I think it's frowned upon to have females playing sports, or at least that it was when I first started.*" She also mentioned: "*I do think it's less common for females to come out and play publicly as Muslim women.*" As such, for Leena and Jana, who share the same culture, the cultural norms and expectations do not encourage young Muslim women to engage in physical activity. That being said, Jana emphasized that more young Muslim women are playing sports as time has passed. She said: "*more families are being accepting of females playing sports like soccer in particular. As time goes on, I think it's become more normal, but when I first started it was definitely frowned upon in our culture.*" Jana joined the soccer team as a child, which means it was not the norm for young women to engage in sports more than 15 years ago. However, right now, it has become more accepted in her culture. Although Jana did not specifically mention it in the conversation I had with her, it may be that as parents became more encouraging and supportive of their girls to join sports teams, and as more opportunities became available for young Muslim women to join sports teams while conforming to their religious beliefs and cultural expectations, it has become more accepted for them to engage in sports at a professional level.

On the other hand, for some young Muslim women, culture is seen either as a facilitator to their engagement in physical activity or has no significant influence. Yasmine said:

Culture itself doesn't really play a major role because it's normal, like it's a choice of yours. It's seen as a choice, so if you choose to, it's fine. If you don't, it's fine. I identify as Yoruba (a West African ethnic group) ... even in our culture, dancing is a form of physical activity.

For Yasmine, the cultural norms and expectations encouraged women to engage in physical activity, such as dancing, which is seen as a form of physical activity that was part of their cultural practices. So, Yasmine grew up in an environment where engaging in physical activity was the norm; thus, her culture did not hinder her from engaging in physical activity. Similarly, Omayma, who is from North Africa, said:

I think, like, obviously, it's a majority Muslim country, and so there are expectations about modesty and stuff. But I feel like because of colonization and globalization, it's kind of been watered down a little bit ... But like it was OK (she means going to a co-ed gym was OK for her). It wasn't a major thing holding me back or anything. So maybe in that regard, because they're more lenient which I say super tentatively and warily that kind of like influenced the acceptability of going to the gym and being involved in sports when I was growing up.

Thus, for Omayma, a hijabi, engaging in physical activity by joining a co-ed gym was okay because it was accepted and normal in her culture. Omayma believes one reason is the colonization and globalization of her country, which resulted in changing some of the more traditional cultural norms and expectations.

Many of the prior studies I came across focused on the influence of the individual's culture itself, but not many focused on the influence of society's culture, as far as I know. For instance, Omayma grew up and lived most of her life in Canada, which I think may have played a role in influencing Omayma's engagement in physical activity. Therefore, besides factors such as colonization and globalization that Omayma has mentioned, adapting to the cultural norms in Canada, such as joining a co-ed gym, seems to be

another reason that influences Omayma's engagement in physical activity. Similarly, the influence of the society's culture, the Canadian culture, was evident in Yasmine's case. Before Yasmine came to Canada, she said, "*I didn't consider walking to be a physical activity.*" The definition of physical activity and what activities are considered physical activity is different from one person to another, and culture plays a role in constructing the definition of physical activity for each individual. After coming to Canada, Yasmine would wait for the bus from Alumni Hall to the Natural Science building, around an eight-minute walk away, until one of her Canadian friends encouraged her to walk. Yasmine said: "*In Canada and at Western University, I find like people actually see walking as a form of physical activity ... I figured walking was also a form of physical activity. I kind of like incorporated walks more.*" Consequently, by acquiring the cultural norms of Canadian society, Yasmine changed her view on what is considered a physical activity. Thus, she started incorporating more walks on campus instead of taking the bus or shuttle. Lastly, the influence of the society's culture was evident in Eman's story.

Eman said:

Our schools (the school she went to in the Middle East before coming to Canada) they didn't really place too much of an emphasis on sports. It was more so academics and like writing, and not so much the physical part of your life like the physical activity part of your life. Versus my sister, who's growing up here (in Canada), she is now surrounded by her friends who do all the different sports.

Eman added: "*Like I know some of my Muslim friends that grew up here (in Canada) are like, second, third generation here. They were involved in sports.*" Again, this shows the positive influence of the society's culture, which was not mentioned in prior research studies, as per my knowledge. Participants in this study confirmed that the strong emphasis on physical activity in the Canadian culture encourages many young Muslim women who came to Canada to engage in physical activity.

Some of the participants highlighted that cultural expectations and religious practices get intermixed, meaning people get confused between what culture entails and what religion entails. One of the reasons seems to be the blending between culture and religion. Zeina

emphasized how the prophet encouraged Muslim women to engage in physical activity, and she added: “It’s a culture thing. It’s not a religion thing.” Zeina meant that her religion does not stop her from engaging in physical activity, and she loves how she is encouraged by her religion to be physically active. That being said, she emphasized that her culture is what places some of the restrictions and barriers to her engagement in physical activity. Eman also had the same opinion as Zeina when she said: “Religion and culture are different things, but the way I grew up, they were very closely intertwined.” Here, Eman specifically mentioned how religion and culture get intertwined, and because of that, when she started engaging in weightlifting, it was discouraged by her relatives. Eman added: “Socio-cultural norms, and it’s like it’s not causation, but it’s a correlation, right that like it’s just that my culture happens to be predominantly Muslim, and it’s like that the cultural things make us act a certain way.” Eman made it clear that because her culture is predominantly Muslim, people started mixing cultural and religious practices. As a result, their cultural and religious identities get mixed, which makes it hard for them to align with religious practices and, at the same time, adhere to cultural norms and expectations, thus creating challenges when it comes to their engagement in physical activity. Lastly, Parvina also mentioned: “Religion is always kind of embedded in culture in societies.” However, compared to Zeina and Eman, who believe that many of the perceived restrictions to their engagement in physical activity are linked to the cultural understanding of Islam, Parvina had a different opinion. Parvina thinks it is her religion and not her culture that restricts her from engaging in physical activity. In order for me to understand the difference in opinion between Parvina and the rest of the participants who agreed that religion encourages them to engage in physical activity, I concluded that because of the unique experience Parvina had with the Muslim community, that I mentioned earlier, which was different from everyone else who participated in the study, it makes sense why Parvina views religion as a restriction. She did not receive support from the Muslim community and often got criticized, and these negative experiences constructed her view about what restricts her from engaging in sports. It could be that Parvina’s culture restricts her engagement in physical activity, like Zeina and Eman. However, since her culture is predominantly Muslim, she constructed that religion is a restriction.

As mentioned earlier, although Islam encourages young Muslim women to be physically active, the issue for some young Muslim women seems to be that their construction of the barriers to their engagement in physical activity is embedded within their community's or their own cultural understandings of the religion, as was evident in many of the participants' stories, especially with Zeina and Eman. This tells me that some young Muslim women when engaging in physical activity, are challenged to negotiate and maintain their ethnic, religious, and sporting identities, which will be further discussed later on. As a result, women who choose to adhere to their religious practices over their cultural expectations view engagement in physical activity differently from young Muslim women who adhere to their cultural practices within their community. Thus, it is crucial to understand the lived experiences of young Muslim women individually to understand how they construct meanings concerning their engagement in physical activity and what they view as facilitators or barriers to their engagement. This will help us understand the different cultures in the Muslim communities and, as a result, help us understand the needs of different Muslim communities to create inclusive opportunities for all young Muslim women to engage in physical activity.

From the case of Parvina and other young Muslim women, it is clear that the community and social networks, the people surrounding the individual, are instrumental in shaping young Muslim women's engagement in physical activity. This highlights the crucial role of the community and social networks in influencing the opportunities and support available to young Muslim women in their pursuit of physical activity. Therefore, it is imperative to explore further in the next section how social networks shape one's experiences with physical activity and sports. This understanding can be harnessed to create more inclusive opportunities for young Muslim women, a key consideration for researchers, health professionals, and policymakers.

4.2.3 Social Support

Social support "is an environmental influence of individual behavior" (DiClemente et al., 2019, p. 294). In health promotion, it has been proven that social support from social networks, such as parents, friends, teachers, etc., can profoundly impact one's health behaviors (DiClemente et al., 2019). Social support can be conceptualized in different

ways, such as the type of support received, how social support is communicated (by actions, words, or other forms), and by the impact it may have on one's engagement in physical activity. With this in mind, examining how various factors affect the provision of social support in relation to one's engagement in physical activity is crucial. According to DiClemente and colleagues (2019), "Every social system is characterized by norms that define the social structures within the community and established patterns of communication" (p. 206). Therefore, in this section, I will explore how social support influences one's engagement in physical activity and how factors such as cultural norms, religious practices, gender, the environment, etc., influence the presence of support. This understanding can guide the development of strategies to enhance social support and, in turn, promote physical activity among young Muslim women.

Many young Muslim women who participated in my study stated that their social networks encouraged them to engage in physical activity. Some of the participants are encouraged by their family, others are encouraged by their friends, and some are encouraged by their teacher or sports coach. Thus, social support can come from various individuals within the social network. In the case of Zeina, who struggled with mental health issues, she said that her parents "*did not understand the need for medication.*" Therefore, Zeina's parents were supportive and encouraged Zeina to engage in physical activity as a way to cope and treat her mental health disorders instead of using medication. As we have seen earlier, Zeina's cultural expectations and practices do not encourage young Muslim women to engage in physical activity for some individuals. However, this did not stop Zeina from engaging in physical activity for multiple reasons, and one of the reasons is her experience with mental health issues. Zeina expressed that by engaging in physical activity, she found it easy to cope with her mental health disorders, and attending the gym helped her avoid loneliness, which played an impact in improving her mental health. Zeina said:

Part of the reason I got off of the medication was for them (for her parents). And so, it became this quest to search for alternative pathways. And I found that regular exercise ... it (exercise) definitely did help, like it does make you feel better. And so for me, I recently started going to the gym more just like as a way

to let off some steam, you know, like it's a way to get to a place where it's, like, easier to cope with, especially because I feel I get very lonely here at times because I am living alone ... it does get quite lonely and so I feel like the gym does right to help fill in that gap for me.

Therefore, in Zeina's case, her parents wanted the best for their daughter, and when they knew that engaging in physical activity was helping Zeina to improve her mental health, they were supportive and encouraging.

In some cases, the parents' knowledge and experiences with physical activity and the value of physical activity within the family significantly determine whether an individual will receive social support from their network. For example, Omayma said: "*My parents were super encouraging of it (of joining in sports).*" Omayma explained that most of the encouragement was from her dad. Omayma's dad was physically active, and he played judo. Therefore, it is evident that because Omayma's father was physically active and had knowledge of the importance of physical activity, he constantly encouraged Omayma to engage in sports and physical activity. Furthermore, Parvina was also encouraged by her parents to be physically active. Parvina discussed how, because she is a health science student, she knows and values the importance of engaging in physical activity. She added:

Even way before that (even before her becoming a health science student), it was just something that my dad would say, my friends would say, my mom would say, everyone around me would say, like, if you want to be healthy, you have to be active.

From Parvina's statement, clearly, the value and knowledge of the importance of physical activity among parents result in parents encouraging and supporting their daughters to engage in physical activity. Thus, in some cases, cultural expectations are neglected when parental support is available. As we have seen in the case of Zeina, her cultural expectations would hinder her from engaging in physical activity. However, because of Zeina's experiences with mental health issues, her parents were supportive of their daughter's engagement in physical activity, which overcame her cultural norms.

Apart from parents, who can be strong contributors to providing social support for young Muslim women to engage in physical activity, it may be that for most of the participants, their friends act as the top contributors to providing social support. Friends can provide social support directly or indirectly. For instance, Zeina mentioned:

And my friend, we would play basketball together like we would just run to court and would shoot groups together, stuff like that. And he knew I was struggling a little bit since I got here. And so he really did encourage me to go (Zeina means go and engage in physical activity). I haven't been going much, but I probably wouldn't even be doing that if it wasn't for him.

For Zeina, her friend directly influenced her engagement in physical activity. Zeina's friend knew that Zeina was struggling with mental health issues. Therefore, he was supportive and encouraged Zeina to engage in physical activity directly by telling her to run and play basketball with him. Social support from friends can be indirect, as Leena has experienced. Leena said:

When it comes to like my female friends, a lot of them are very active, and I do think that encourages me. You know... I have a friend that goes running every morning and I thought you know, I feel like I would be so relaxed ... I definitely think there is that level of encouragement within my social network.

In this example, Leena's friend did not directly tell Leena to engage in physical activity. The support from Leena's friends came indirectly. Leena's friend was a role model for her, and as a result, Leena was indirectly inspired and encouraged by her friend and always wanted to be physically active like her friend. Thus, when a young Muslim woman has a close friend she cherishes, she will look up to her and consider her a role model, thus being encouraged to engage in physical activity like her friend.

In addition to parents and friends, the third source of social support is teachers and sports coaches. In the case of Omayma, when she made it to the soccer team, she was discouraged from continuing because her friends did not make it to the team, so she felt lonely and left out. However, Omayma said:

I was going to go to the coach and be like, I don't want to be in it (in the soccer team) anymore because my friends are not here. I don't want to do it. And I remember her (the coach) telling me that you're not always going to have your friends in these spaces, you're not always going to have people backing you up in these spaces, but you can be that person like you can be that representation for these folks ... I remember her sitting me down and being like, you're really good at soccer and, you know, not going not playing because your friends aren't there is only going to hold you back.

Omayma's coach saw how talented Omayma was in soccer. Thus, the coach did her best to encourage Omayma to participate in sports. When significant others believe in young Muslim women's talents and do their best to encourage the individual to engage in sport, the person is more likely to be physically active. Social support has a powerful impact and can facilitate change, such as in Omayma's case, as she changed her mind and decided to play with the team. Omayma's case is an example of what DiClemente and colleagues (2019) have mentioned regarding social support and its potential to facilitate behavioral change. DiClemente and colleagues (2019) talked about two concepts that show how social support facilitates change, such as engaging in physical activity. First, facilitators of change which is defined as "the structural supports that enable change" (p. 37). Second, reinforcing factors are defined as the "rewards (social, personal, or financial) for performing the protective behavior, and these rewards may be internal or external" (DiClemente et al., 2019, p. 46). Social support is considered a facilitator of change and a reinforcing factor for an individual to adopt healthy behavior, such as engaging in sports, because of the social reward and the positive influence that a person receives when getting word of encouragement and positive feedback from others, such as the coach, and this makes them feel better, thus resulting them in engaging in sports. So, for Omayma, after she received positive feedback about how good a soccer player she is and a word of encouragement, she felt good about continuing to engage in sports.

On the other hand, having a social network "who do not reinforce exercise as a health-promoting behavior may impede one's willingness to engage in exercise" (DiClemente et al., 2019, p. 285). The lack of support from parents, friends, or a sports coach may

discourage the individual from engaging in physical activity. As we saw earlier in the case of Parvina, her coach did not support her participation in the team. As a result, Parvina refrained from being a part of the sports team. DiClemente and colleagues (2019) defined inhibiting factors as “internal or external factors that make the adaption of a given health behavior difficult” (p. 305). Thus, lack of social support can be considered as an inhibiting factor because, for some young Muslim women, it makes adaption of healthy behavior, such as engaging in physical activity, extremely difficult. Lack of support has consequences, as it can affect one’s confidence and self-efficacy. Self-efficacy is “one’s confidence in one’s ability to take action or to change a health-related behavior” (DiClemente et al., 2019, p. 309). It has been proven that social support from one’s social network can enhance one’s self-efficacy, thus boosting one’s confidence to overcome challenges in relation to one’s engagement in physical activity (Laird et al., 2018). As a result, “enhanced self-efficacy is associated with greater PA” (Laird et al., 2018, p. 2). Therefore, the opposite is true. The lack of support decreases one’s self-efficacy and confidence, which prevents the individual from engaging in physical activity. Parvina, who received much criticism instead of support from her social network regarding her engagement in sports, said: *“It’s much easier to just give up on sports.”* Parvina may have lost her self-efficacy and confidence to change reality and engage in sports. It was challenging for Parvina to engage in sports while trying to fit into her community. Thus, it was easier for her to quit the sport and stay with her community rather than feeling repelled by her community, as she described.

In some cases, although a lack of support is apparent, the person may continue to engage in physical activity for various reasons. As mentioned, Zeina did not receive support and encouragement from her relatives and family friends:

I had a game and then we had a family, not a family, like my family friends, dinner afterwards. And so my dad picked me up after the game ... And then I showed up, and they were like, where were you? And I was like, yeah, unfortunately, I was at a game, and they were not very happy with that.

Now, the primary reason Zeina continued to engage in sports, despite her relatives and family friends not being supportive, is because her parents were supportive and encouraged her to engage in sports. Additionally, there is another reinforcing factor that encourages Zeina to engage in physical activity despite the lack of support from her extended social network. When Zeina engages in sports, she experiences the instant internal reward of feeling good, motivated, and accomplished after engaging in sports. Zeina said: *“You feel better about yourself, both physically and mentally like for me it plays a big role in my life.”* Zeina added: *“I just feel like when you’re engaging in sport, it’s a lot more immediately rewarding ... when you’re playing a sport, you feel more motivated.”* Similarly, when I asked Leena why she is striving to be more active, she said: *“I remember how amazing I would feel like after doing a warm up or after doing like a marathon. And I just really want that feeling again.”* Also, Omayma had a similar experience. When I asked Omayma why does she feel inspired to incorporate physical activity more in her life, she replied: *“Because I feel good when I do it consistently ... I like the feeling of going in and like pushing my limits and feeling stronger.”* Furthermore, Eman continued engaging in weightlifting because she said: *“I also like started to see progress like muscle growth and stuff that was very motivating for me to keep going like it changed my attitude.”* Therefore, for some young Muslim women, the rewards and positive outcomes that are experienced after engaging in physical activity and sports seem to outweigh the lack of support from social networks, especially sports had a positive impact on their physical and mental health as being healthy seems to be a top priority for many young Muslim women and their health comes in the first place.

Parental social support for young Muslim women engaging in physical activity can be analyzed using the lens of Orientalism theory. For instance, young Muslim women are represented in a way, by the media, that they must confine to traditional roles and, as a result, are unable to engage fully in sports and physical activity (Perry, 2014). This representation influences false stereotypes regarding this demographic, which in turn influences society’s perceptions and policy-making, limiting inclusive and accessible physical activity opportunities for young Muslim women. Therefore, parental support is crucial because it challenges false narratives and stereotypes regarding young Muslim women’s engagement in physical activity. Because of the hegemonic cultural norms in

some cultures and how most individuals who engage in physical activity or sports are fathers and brothers (Aljayyousi et al., 2019), an assumption that fathers might not be supportive of their daughters engaging in physical activity may be developed in Global North countries. Thus, when we see those parents, especially fathers, encouraging their daughters to engage in physical activity, it will actively promote the narratives of empowerment, emphasizing that young Muslim women are able and have the right to engage in sports and physical activity as part of developing a healthy lifestyle and maintaining their well-being. Furthermore, the presence of parental support despite cultural norms and expectations, as we have seen above, for example, in the case of Zeina, will also challenge Orientalist assumptions that religious practices restrict Muslim women from engaging in physical activity.

Social support from friends for young Muslim women engaging in sports and physical activity can be analyzed using the critical race feminism theory. Critical race feminism raises awareness about how race, gender, ethnicity, and power intersect, influencing young Muslim women's engagement in physical activity. Friends can actively listen to their young Muslim women friends' experiences with physical activity and provide support to young Muslim women, which in turn can create a safe space for this demographic to engage in physical activity. Critical race feminism defends the idea of empowerment through solidarity. Friends can act as a social support system for young Muslim women to create a sense of belonging and solidarity in physical activity spaces where young Muslim women can feel a sense of community and confidence in physical activity spaces where Muslim women are a minority. This was evident in the case of Zeina and Leena, as both felt confident and empowered by their friends, directly and indirectly, to engage in physical activity.

Lastly, social support from coaches is also crucial because it can challenge Orientalist views and stereotypes regarding young Muslim women's engagement in physical activity and sports. This involves challenging the assumption that young Muslim women are restricted by their ethnic and religious identities when it comes to their engagement in sports. So, when coaches support young Muslim women's engagement in sports, it creates a physical activity space that includes and respects diversity and promotes the

agency of young Muslim women regarding their participation in physical activity. In addition, coaches can promote cultural awareness among other coaches, colleagues, and staff members, raising knowledge about young Muslim women's needs. As a result, resisting false stereotypes of young Muslim women's engagement in sports.

As mentioned earlier, individual behavior is influenced by social support (DiClemente et al., 2019). From the participants' experiences, their significant support, motivation, and encouragement system were their friends. Social support significantly improves one's self-efficacy and confidence, thus increasing their engagement in physical activity and sports. The nuances of social support explored above give us insight into how these women construct their multiple identities and further our understanding of the relationship between their lived experiences and their identity management, which will be explored in the next section.

4.3 Unveiling Identities

Identity, that is, "a set of meanings defining who one is" as an individual, in society, etc. (Burke, 2021, p. 63) plays a crucial role in shaping one's experiences with physical activity. One's identity is highly influential to the experiences of minority groups, such as young Muslim women, who may experience gendered and racialized discourses when engaging in physical activity and sports (Jiwani & Rail, 2010; Thrope et al., 2022; Hamzeh, 2011). Based on the participants' experiences with physical activity, their experiences differ from one individual to another based on how they construct, negotiate, and maintain their religious, ethnic, and physically active identities when engaging in physical activity. As per my study objective, which is to illuminate the experiences of young Muslim women university students with physical activity, it is crucial to understand the link between physical activity and sports, the body, identity, and self. This understanding is not only fascinating but also crucial in providing us with a deeper understanding of how young Muslim women access physical activity opportunities and how their experiences with physical activity are influenced by their constructed identity.

4.3.1 Knowledge of Identity

From what I have noticed as I was analyzing the data, what constitutes the identity and how each young Muslim woman constructs her identity is based on two things. First, her understanding and knowledge of the body. This idea explores how one's knowledge of one's body, such as the knowledge of exercising to stay healthy and the physiological benefits of engaging in sports, plays a role in constructing the physically active identity of an individual. Second, the awareness of self. This idea explores how each young Muslim woman explores and understands herself and her interests to construct, negotiate, and maintain their other identities, such as their religious and ethnic identities, concerning their physically active identity. The knowledge of the body and awareness of the self will be explored in further detail in the following pages.

Understanding the Body

The participants talked about their experiences with physical activity and how it allowed them to discover themselves more. For instance, when I asked Zeina why she felt most encouraged to engage in physical activity at a point in time that she mentioned in the timeline she drew, Zeina answered:

I've always been a very fit person and I feel like that takes maintenance, right? I could feel myself getting weaker, not able to run as much, not able to lift as much and for me, that was like upsetting because in summer of this year, I used to go to the gym every single day ... I was very strong, very like active and I could feel that declining and I disliked it.

For Zeina, engaging in physical activity made her explore, understand, and be aware of her bodily capacities. Zeina knew she could be strong and fit by engaging in physical activity. Thus, Zeina's bodily awareness helped her develop her physically active identity, which is an identity that shows her love for physical activity and sports through the acquisition of skills and confidence in her ability to engage in physical activity and sports. Also, by connecting with herself and her physical body, Zeina noticed that to stay fit and strong, she should attend the gym regularly, and she did not like the feeling of losing her physical capabilities after she stopped going to the gym for a while.

In addition, physically active identity seems to be developed through emotional connection. Many of the participants were emotionally connected to physical activity and sports. Many participants felt happier and better because engagement in physical activity improved their physical and mental health. For instance, Zeina said: *“Physical activity has a direct impact on my mental health. I feel a lot better when I go to the gym when I’m regularly working out.”* So, for Zeina, the emotional connection she had with physical activity, where she felt better and happy after engaging in physical activity, encouraged her to develop her physically active identity and continue engaging in physical activity. Similarly, Maha likes to go to swimming sessions. Maha said: *“I feel that time like this session like help me meet my friends during the week. Plus, I feel like, yeah, it just like helped me relax a bit and de-stress.”* Maha enjoys attending swimming sessions because they help her de-stress from schoolwork, and she enjoys social interaction with her friends during the swimming sessions. Thus, she developed her physically active identity through social interaction during her engagement in sports. As a result, Maha ensures to attend the swimming sessions regularly. Even for Eman, she said: *“Weightlifting genuinely saved me from so much, and it’s like showed me that physical activity is, like, fun, and it’s very empowering.”* Therefore, the emotions experienced when engaging in physical activity and sports, such as being happy after feeling better, healthier, great, empowered, being socially happy, being excited during sports as some of the participants described how sports give them an adrenaline rush which feels great, all these emotions contribute to the development of their physically active identity and encourage them to continue engaging in physical activity and sports to maintain this identity.

Awareness of Self

As mentioned earlier in the literature review section, many young Muslim women develop their physically active identity by seeing physical activity as a way of looking good and staying fit (Jiwani & Rail, 2010). Jiwani and Rail (2010) mentioned that the way certain sports are marketed creates more meaning for men than women. However, this was different for Jana. Her knowledge of self and interests allowed her to become a sports person. Jana said:

I always thought of physical activity as an important part of life. So to me, I was never like, I never thought of it as a chore or as something that like, I have to do to stay healthy. It's more something that I like to do.

Also, Jana said, "*I was intrigued by the sport (soccer).*" Jana found herself and her potential in soccer. Jana stated: "*So, to me, it's really easy to keep participating in sports ... I prefer to be doing something that's physically active rather than like sitting around just because of the way I've grown up playing on multiple sports and teams.*" So, for Jana, being a sports person seems to be a part of her physically active identity. She enjoys playing sports, which is why she became a sports person rather than engaging in physical activity for the reason of looking good or fit. It appears that sports allowed Jana to discover her potential and what she is capable of, which raised her self-awareness about her sports skills, and she ultimately became a sports person because Jana continued engaging in the activity she enjoyed. Jana's performance improved in soccer, and she started to play at a higher level. It may be that when young Muslim women are self-aware of their skills, potential, and ability, they become motivated to engage in the activity and sport they like, thus developing their physically active identity and ability to stay consistent with the sport and improving their performance, which in turn seems to boost their confidence and self-esteem.

Being self-aware of your beliefs, values, and interests, such as what physical activity means to you, influences the development of your physically active identity and experiences with physical activity. For instance, Eman said:

Exercise was always seen, or physical activity was always seen as a way for me to lose weight, not as a way just to move my body or to feel healthy or good. It was always about losing weight. Versus now, it's a very different mindset.

For Eman, because of the expected 'ideal' image of women promoted in sports culture, she constantly exercised to lose weight. However, she potentially discovered herself, her values, and her interests when she started trying different forms of exercise. She hated engaging in cardio but enjoyed weightlifting. Eman had a positive experience with

weightlifting, and thus, she was motivated to continue engaging in weightlifting. Eman said:

I hated cardio whenever I would do it, it was like I don't like it. I'm breathless, it's like a mental challenge for me to start doing it like I just don't like it, so I wouldn't enjoy cardio necessarily, but weight-lifting doesn't cause me that same breathlessness and I think it's just...it's really...it was like just crazy for me to think that, oh my gosh like my body can do this and then I also like started to see progress like muscle growth and stuff that was very motivating for me to keep going like it changed my attitude on like...oh, like, it's not just expecting to lose weight, but also, exercising to like...oh like I have biceps now. My legs look like this. Now I have a back muscle. And it was like of...it motivated me to keep going and it changed my attitude that like moving your body is so much more than just losing weight.

So, when young Muslim women have high self-satisfaction rates regarding their self-efficacy, self-esteem, self-worth, and body image, they develop a positive attitude toward physical activity and sports. When Eman's view and level of satisfaction changed regarding her body image and ability to perform certain activities, she started enjoying physical activity more and having a positive attitude toward physical activity. Whereas before, Eman had a negative attitude toward physical activity, where she viewed it as a task that needed to be done to achieve a specific end, as homework that needed to get done, instead of an enjoyable experience to have fun. As a result, Eman developed her physically active identity through her knowledge of herself and her abilities.

4.3.2 Maintaining Various Identities

From the participants' experiences, it may be concluded that young Muslim women are constantly challenged to maintain their identities. Many young Muslim women do their best to negotiate and maintain their religious, ethnic, and physically active identities. This challenge was primarily visible among those who wear the hijab since it is a visible part of Muslim women's identity. As mentioned earlier, the term *deveiling* was used to refer to the challenges young hijabi Muslim women face when accessing physical activity

opportunities, which may enable or constrain them from accessing these opportunities (Hamzeh, 2011). It is crucial to understand young Muslim women's challenges when negotiating and maintaining their religious identity while accessing physical activity opportunities to build more inclusive physical activity spaces that account for their needs. Ahmad and colleagues (2020) discussed a few critical challenges with sports organizations when developing physical activity opportunities for the community. One of the critical challenges is the stereotypical presentation of young Muslim women as a homogenous group, thus failing to account for the intersectionality of culture, religion, and gender (Ahmad et al., 2020). This stereotypical assumption is problematic because it assumes that all young Muslim women have the same identity, which is not the case. Therefore, looking at how each young Muslim woman negotiates and maintains her various identities when engaging in physical activity and sports will provide insight and allow us to discover the complex intersection of culture, religion, and gender within sports for this demographic.

For many young Muslim women, their religious and physically active identities go hand in hand and cannot be separated. For instance, when Jana joined the co-ed intramural soccer team at Western University, she initially hesitated to play. She thought she would get different looks and reactions for looking different because she was wearing the hijab. However, Jana successfully maintained her religious and physically active identities, saying, *“Now that it’s my third year at Western, I’ve gotten more confident when I play.”* One of the reasons seems to be how welcoming the environment was, which will be discussed in more detail later in this chapter. Jana did not have a negative experience when she joined the intramural team at Western, and she was welcomed to join the team. As a result, she became more confident playing sports with her hijab.

Like Leena, she successfully maintained her religious and physically active identity when participating in sports in her gym class during high school. Leena said: *“There was a uniform, and it was shorts and a T-shirt. I asked to wear something under it, and they said whatever, that’s fine.”* Leena, who wore a hijab, maintained her religious and physically active identity by modifying her sports clothing to comply with her religious practices while engaging in sports. Clearly, having a supportive coach who understood

Leena's needs helped her engage in sports she liked without any barriers. Thus, from Jana's and Leena's experiences, having a supportive social network and an inclusive environment meeting young Muslim women's needs helps this group maintain their identities.

On the other hand, Eman had a different experience when maintaining her identity. Eman said:

I wore the hijab until 2022, and I was kind of I wasn't necessarily intimidated, but I would think that like, oh, like, people looking, people are judging, people are thinking this, or people are thinking whatever I don't know. And then it took me about a year for me to get comfortable in the weight room ... and then after I took my hijab off, I don't know, like I did notice that people acted differently towards me in the gym. People would come up to me, more people would talk to me more. I'm the same person. Just all of a sudden, now I'm just not wearing a scarf, and I seemed more approachable because people would come and talk to me.

When Eman wore the hijab, people at the gym did not approach or talk to her because she looked different. After she took the hijab off, people started talking to her. It may be that Eman felt different, and she felt that she was being 'othered' by the community in the gym. Therefore, it was hard for Eman to maintain her religious and physically active identities at the gym. From Eman's narrative on her experience, the area where she practiced weightlifting was not diverse and lacked inclusivity and representation of young Muslim women. As a result, Eman had a negative experience when negotiating her identity while engaging in physical activity.

From the participants' experiences, it is clear that young Muslim women are not a homogenous group, and each individual negotiates and maintains their identity in different ways. From a critical race feminism lens, individuals have unique identities, and these identities must be considered exhaustively, which I did above, where I compared and contrasted the experiences of the participants in relation to maintaining their identities (Wing, 2014). Some young Muslim women who wear the hijab will modify their sports' clothing to comply with their religious practices while being able to engage

in sports. Others will engage in sports differently and decide not to wear the hijab. This depends on what each young Muslim woman experiences. It looks like space and the environment play a crucial role in how young Muslim women manage their dual identity. The space where young Muslim women engage in physical activity plays a role in how this demographic negotiates and maintains their identity. In the next section, I will explore how young Muslim women discover, access, and negotiate physical activity spaces when engaging in physical activity.

4.4 Discovering and Negotiating Spaces: Muslim Women and Physical Activity Spaces

Physical spaces where young Muslim women engage in physical activity and sports have been shown in prior studies to affect their experiences with physical activity significantly (Maxwell et al., 2013; Thorpe et al., 2022; Ahmad et al., 2020). Many of the young Muslim women who participated in my study talked about how physical activity spaces significantly influence how they negotiate and maintain their identity and how they construct knowledge and attitude regarding their experiences with physical activity. It is crucial to explore and understand how space shapes young Muslim women's experiences with physical activity. This will allow us to understand how boundaries regarding young Muslim women's inclusion, exclusion, and sense of belonging and being othered are challenged in connection to their experiences with physical activity in physical activity spaces, described by Brah (1996) by the term *diasporic spaces* which are spaces where "the point at which boundaries of inclusion and exclusion, of belonging and otherness, of 'us' and 'them'" are challenged (Brah, 1996, p. 205). In the following section, I will engage with and explore the terms *deveiling* and *diasporic spaces* through the critical race feminism and orientalism theoretical frameworks to understand the idea of 'safe' spaces, how young Muslim women construct and interpret safe spaces, and how it influences their experiences with physical activity.

4.4.1 'Safe or not Safe' ... That is the Question?

The availability of safe physical activity spaces is crucial for encouraging individuals to engage in physical activity and sports. That being said, there is no set definition of a safe sporting space. The meaning of safe physical activity spaces among the participants

varied from one person to another, depending on their lived experiences and other factors surrounding the individual. In the following sections, I will start by exploring the basic interpretation of Muslim women to safe spaces and examine factors contributing to the construction of safe physical activity spaces.

Muslim Women's Perceptions of Safe Spaces

From the conversations I had with the young Muslim women in the study, it is evident that safe physical activity spaces contribute to their ability to engage in physical activity in an environment where they are free to do what they want and what they enjoy doing without any restrictions, stigmatization, or being othered, and excluded. Yasmine said: *"We want to be free, to be covered up and not be stigmatized because of that."* When I asked Yasmine what she meant by stigmatized, she provided an example where, in certain countries and spaces, there are specific dress codes implemented that exclude and hinder young Muslim women from engaging in physical activity. Yasmine said:

We should be free to dress however we feel like, and we shouldn't feel compelled to dress in such a way because the law is telling us so. So yeah, that's what I mean by being stigmatized because I feel sometimes as a Muslim woman in Canada, I feel sometimes I get ... (thinking), I get this look like, oh, you're a Muslim. They're not telling me to my face, but then there's this reaction that depicts, oh, you're a Muslim. As a Muslim woman and racialized woman in Canada, there is a lot that needs to be done regarding that.

For Yasmine, the looks she got due to her wearing the hijab, which is a visible part of her identity as a Muslim woman, make her uncomfortable, and she potentially saw the spaces where she got these looks as unsafe. The meaning of these looks is unclear because they might mean the person is interested in learning more about Yasmine's culture and religion. However, it meant something different for Yasmine, and she felt stigmatized by the looks she got. When I asked Yasmine about her interpretation of the looks, she said: *"I just felt that I wasn't welcomed."* Since Yasmine felt she was unwelcome in the physical activity space, she had a negative interpretation of the looks she received. Yasmine did not mention the cause of her interpretation. However, it may be that the

cause is linked to her identity as a Muslim woman of color and the image and stereotypes floating around in society about this demographic. Wing (2014) mentioned that racism has become standard in our society, and due to how common it became and frequently experienced by minority groups in the community, it is no longer viewed as abnormal. This is exactly what Yasmine has mentioned. Yasmine said:

We've all accustomed ourselves to it as a norm. Because you are a Muslim, you are different, and it shouldn't be so. We should have a place in society itself at large. We shouldn't just be seen differently because we are Muslim.

What Yasmine is trying to mention is that spaces may convey racist undertones, even if racism is not experienced directly, because of many factors, such as the presence of stigma and lack of diversity in these spaces. Yasmine said she was the only one who was dressed modestly in the physical activity space she attended, that she was the only Muslim woman of color wearing the hijab in the space. Thus, the space lacked diversity, and as a result, Yasmine felt unwelcome, which resulted in negative interpretations of the looks she received. From a critical race feminism view, it may be that in Yasmine's situation, the intersectionality of her race, gender, and religion is part of her identity, which made Yasmine experience the process of *deveiling* (Hamzeh, 2011), described earlier, where Yasmine challenged the boundaries of inclusion and exclusion, belonging and otherness. As a result, Yasmine felt a sense of diaspora from the looks she received and was not sure whether these looks meant that she was included in the space or being othered due to her race, gender, and religion.

Similarly to Yasmine, Leena mentioned stigma in connection to freedom and how the physical activity space is perceived. She said:

I think racism has a big part to do with it (Leena is referring to stigma)... but by wearing the hijab, they're going against what Western society wants for women because they think hijab is oppressive... their idea of freedom is not the same definition that I have for freedom.

Linking this statement to the theory of Orientalism, she mentions that specific policies and laws placed in physical activity spaces and organizations regarding dress codes are discriminatory. Leena said that some individuals in Global North countries may assume that young Muslim women who wear the hijab are being oppressed, and by not conforming to certain dress codes in physical activity spaces, or by not wearing physical activity attire that is similar to what is worn in Global North countries, individuals in Global North countries may assume that young Muslim women do not want to integrate in their society. Thus, a false stereotype about the hijab being oppressive is reinforced. On the other hand, young Muslim women have a different definition of freedom, and they do not view the hijab as oppressive or as a barrier to their engagement in physical activity. All they need is a physical activity space that accommodates their needs as Muslim women. They want to be able to wear what they want and do what they want in physical activity spaces freely while engaging in physical activity. Therefore, it is apparent that stigma, false stereotypes, and racism create challenges for young Muslim women when confronting the boundaries of inclusion and exclusion and belonging and otherness when facing genderized and racialized discourses in physical activity spaces. Indeed, it is crucial to understand how young Muslim women construct the idea of 'safe' physical activity spaces to challenge negative stereotypes and create a safe, diverse, and inclusive sporting environment for everyone. From Yasmine and Leena's statements, it appears that the idea of belonging influences how young Muslim women view what a safe sporting space is. Thus, the idea of belonging will be explored in detail later.

Lastly, some participants talked about the design of the space and how it made them feel uncomfortable. For instance, some participants mentioned that the swimming pool at Western University's gym has a see-through glass wall. Thus, they felt uncomfortable to engage in swimming in that space and viewed it as unsafe. For example, Karima said:

I don't think there are enough places or spaces for women. I don't feel comfortable at the gym to be honest, like the Western gym. I know they had, like, certain hours where hijabis (Muslim women who wear the hijab) can go in and it's only women. I went and it was like a see-through glass, so I didn't really like it. I don't feel comfortable. So that's why I joined a gym outside Western.

Similarly, Yasmine mentioned the same issue. Yasmine said: “*The pool at Western is not private and it’s opened. There’s glass, it’s opened, So even if you are in the pool, the workers around can see you ... I just don’t feel comfortable doing that.*” For Yasmine, swimming is one of the activities that interest her, and she wants to go to the pool and learn how to swim, but she is unable to do it because, to her, the pool at Western’s gym is not inclusive of her needs as a young Muslim woman.

Furthermore, Parvina was also shocked by the design of the pool at Western’s gym.

Parvina said:

Like, what is this at least put blinds on the glass that would be a good idea. I want to go to the pool and I have swimsuits for that ... but I would still not want to be exposed to anybody.

So, for these participants, the design of physical activity spaces shapes their views of safe physical activity spaces.

Sense of Belonging in Physical Activity Spaces

Physical activity spaces meant more than just a physical space for participants. The young Muslim women were connected emotionally with physical activity spaces, viewing them as an opportunity to connect socially and integrate with the community. When young Muslim women felt a sense of belonging in the physical activity spaces they attended, they attributed symbolic values to the space, such as the space being welcoming and comfortable for them. As a result, the space is viewed as a ‘safe’ sporting space for young Muslim women to engage in physical activity. Many young Muslim women felt a sense of belonging in physical activity spaces when common identities were shared among individuals who attended the space. Thus, a sense of belonging can be experienced when individuals share the same ethnic identity, religious identity, gender, or other similar characteristics.

For instance, Omayma mentioned that she noticed she did not see other young Muslim women who wore the hijab at the gym she attended. Omayma said: “*maybe because it’s such a male-dominated space.*” In addition, Omayma mentioned how the women’s space

at the gym lacked care. Omayma said: “*It (meaning the space) was awful. It was dingy and dark and just like not an atmosphere that got you like pumped to be working out.*” Omayma compared the women’s space to the men’s space, where the atmosphere was more likable, and the space was fully taken care of and equipped, so access to all the weightlifting equipment was more accessible for the men compared to women. The examples provided above illustrate how physical activity spaces are gendered. The racializing and genderizing of physical activity spaces, such as having men-dominated weight rooms in the gym and not having a space for women to engage in weightlifting, limit women’s access to physical activity (Thorpe et al., 2022). In addition, it shapes young Muslim women’s perception and understanding of what a ‘safe’ sports space is. For instance, Omayma mentioned that the weightlifting area at the gym she attended was male-dominated. There were not many women in the weightlifting area, and due to the lack of shared gendered identity with the individuals who attended the gym, Omayma felt uncomfortable in the space. Thus, the feeling of uncomfortableness made Omayma view the space as unsafe because safe spaces are often associated with feelings of comfort (Antonsich, 2010). Although Omayma did not directly say that she viewed the weightlifting area as unsafe, she said: “*I relegated myself to the treadmills because again, I feel like that’s a safe space for hijabis.*” Omayma viewed the treadmill area as safe because she found many women with shared identities in that area, thus making her feel comfortable engaging in physical activity.

Returning to the Critical Race Feminism theory, it may be that the difference in care in the weightlifting area between men’s and women’s physical activity spaces might be due to the marketing and cultural understanding of weightlifting as a men's sport. Thus, this genderized discourse creates an unsafe physical activity space for women. Weightlifting should not be seen as a men’s sport only. The weightlifting area for men and women in physical activity space must be cared for equally to challenge and break down these genderized discourses. This will provide an inclusive environment for young Muslim women and women, in general, to practice weightlifting if they are interested in it and encourage them to engage in physical activity in the way they like.

Green and Singleton (2007) introduced the concept of community spaces as places where women can gather with other individuals, fostering a sense of community and shared identity. This concept appears to be a crucial component in influencing young Muslim women's engagement in physical activity. For example, Karima experienced a sense of belonging when she joined the walking program for Muslim women, a walking program organized by the Muslim community for Muslim women to engage in physical activity and socialize with one another. Karima emphasized that engaging in physical activity at a place is not just "*about moving your body, it's about you know everything that you know on the outside.*" Karima added, "*You feel a sense of community, and everybody has the same values, so maybe experience the same issues when exercising.*" To clarify, Karima means that Muslim women in the walking program share the same gender, ethnic, and religious identity since they share the same beliefs and values and may experience the same issues and challenges when engaging in physical activity, such as not being able to find women-only spaces or physical activity spaces that accommodate their needs as Muslim women. Thus, Karima perceived a space where she felt a sense of belonging and community as a safe space to engage in physical activity. That is why Karima was encouraged to engage in a walking program for Muslim women that the London Muslim Mosque organized. Karima enjoyed her time in the program because she was not 'othered.' Karima felt comfortable and enjoyed the companionship. It may be that Karima felt security, comfort, companionship, and happiness in the spaces where she engaged in the walking program, and these symbolic meanings made Karima interpret the walking program as a safe space for her to engage in physical activity.

From the participants' experiences, diversity is one factor that generates symbolic meanings associated with the space, such as comfort. To ensure inclusion in physical activity spaces, it is essential to value diversity, as it will help create inclusive and safe physical activity environments for young Muslim women (Maxwell et al., 2013).

Omayma highlighted the idea of diversity multiple times during the conversation I had with her. Omayma talked about her experience with the intramural soccer team she joined at Western University. Omayma said: "*It lacks diversity ... there were just no other hijabis. There are no other Muslim women.*" Omayma added: "*The girls were just talking about how there's, like, no diversity. You would never see a lot of hijabis.*" As a result,

the lack of diversity discouraged young Muslim women who were interested in joining the soccer team at Western University from participating. Omayma enjoyed seeing how diverse physical activity spaces are, which encouraged and motivated her to engage in physical activity. When Omayma switched gyms, she said:

I switched to a different gym and it was a lot better, like it wasn't as nice, I guess, like it didn't have as many features as the gym that I was at before, but like it was more accessible to a diverse array of people.

Although the second gym Omayma went to lacked features in terms of exercising equipment, etc., the presence of diversity in the second gym made Omayma keep her membership with the second gym because she viewed it as a safe space for her to engage in physical activity with a sense of comfort, happiness, and enjoyment.

Similarly to Omayma, Yasmine addressed how important the idea of diversity in physical activity space is. Yasmine said:

I know I'm limited because I have to feel welcomed in a place. It's a different thing. The place being accessible to all students, but I also have to feel welcomed there. Like there was this discussion I was having about equity. They were talking about equity, but they are not diverse. They are not diverse people from different ethnic group or different racialized group, and you expect me to come and I'm not seeing someone within that group I can identify with. I won't be comfortable as a person. So, creating inclusion and being aware of diverse ethnic group and religion when we are talking about physical activity is very important.

Yasmine talked about how the physical activity space she attended lacked diversity. She did not see people with whom she could identify or have a shared identity due to a lack of diversity. Although the spaces are accessible to everyone, they still lack diversity, and this could be due to a lack of inclusion that is caused by not meeting the needs of different groups, such as young Muslim women. However, even though physical activity spaces are accessible to them, they are not inclusive. In Global North countries, young Muslim women are expected to engage in physical activity in spaces that do not meet

their needs as Muslim women. Instead, they are expected to engage in physical activity by integrating into the norms and expectations of their society.

The presence of diversity in physical activity spaces seems crucial to building a sense of belonging, as it generates feelings of comfort among young Muslim women. When the space is diverse, young Muslim women are not viewed as different from the rest or will not be 'othered'. That being said, Jana has a different opinion about diversity than Omayma and Yasmine. Jana said:

I think that if you're around people that are very similar to you compared to a more diverse environment, like classes at Western or particular teams that I've played on, including the Western female soccer team, it's easier to feel included because you don't have to try as hard to prove a point and they just understand like who you are and where you come from.

Even though prior studies and some of my research participants emphasize the importance of diversity in sporting space, Jana preferred to engage in physical activity where she shares the same identity with the individuals using the space. Jana prefers to engage in physical activity in community spaces because when she has a shared identity around gender, culture, faith, race, and ethnicity, it is easier for her since she will not face challenges because people with the same values and experiences as her will understand where she is coming from. However, when Jana engages in a diverse physical activity space, she faces challenges when contesting the genderized and racialized discourses. She needs to explain herself and where she is coming from in order not to feel different or feel 'othered' in the physical activity space. Therefore, some young Muslim women view diverse physical activity spaces as safe spaces, and others might view them as unsafe spaces, depending on their lived experiences. Once again, the difference in preferences among young Muslim women and the different views they construct about sports spaces and the notion of safety shows that young Muslim women are heterogenous, and all needs and preferences must be taken into consideration to try and develop an inclusive environment for everyone as much as possible.

The idea of diversity is also linked to the representation of Muslim women in physical activity spaces. Many of the young Muslim women who participated in my study mentioned that they noticed there was a lack of representation of Muslim women in physical activity spaces. When I asked Omayma about what is the first thing that came to her mind regarding physical activity and Muslim women together in the same sentence, Omayma replied:

I feel like there is a big gap in the sense that there aren't a lot or like most of women aren't like super represented in the physical activity space and even when we are, it's always an exception ... it's like we have to strive to be represented within that space.

Omayma said that Muslim women are not represented in physical activity spaces, and when they are, it happens after a constant battle, advocating, and striving to be represented and that is what she meant by the exception. So, Muslim women are not easily represented in the physical activity spaces. After I asked Omayma why does she think young Muslim women are not represented or underrepresented in physical activity spaces, Omayma said:

I think of like Muslim representation in general and how we like as a community don't get a lot of that and I think part of it has to do with the fact that we're just moving into these spaces like Muslims haven't been in Canada or North America generally very long ... but it's almost like because we don't get a lot of representation in this space we don't feel comfortable being in this space and so we don't get any representation in this space and so it kind of feeds itself.

Therefore, from what Omayma has mentioned, that lack of knowledge and awareness about the Muslim community and their needs in Global North countries plays a role in the lack of representation. In addition, to start representing young Muslim women in physical activity spaces, Muslim women who are community leaders must take the initiative and advocate for their needs by attending these spaces and raising knowledge because when no one attends physical activity spaces due to being uncomfortable because of lack of representation, it becomes a self-fulfilling prophecy, as Omayma explained.

Sara had a similar experience to Omayma, stating:

I feel discouraged because I didn't feel that sense of security and I didn't feel like there was a place for me there ... I didn't see a single Muslim woman with hijab ... everyone was looking at me, so I was pretty nervous and uncomfortable there ... I couldn't shake that feeling like I wasn't welcome there. I didn't belong there and I didn't have that sense of security around me.

For Sara, the lack of representation of young Muslim women wearing the hijab in physical activity spaces generated a sense of insecurity, uncomfortableness, and feeling different and othered because she felt everyone was looking at her. Therefore, Sara viewed the space as unsafe. Similarly, Dana said: *“the fact that I would be the only hijabi Muslim women on the entire team so that all kind of took me back.”* The lack of diversity in physical activity spaces and lack of representation of young Muslim women in these spaces, generate feelings of insecurity and uncomfortableness. In addition, when there is a lack of diversity and representation, other individuals will start looking at young Muslim women, maybe because they are interested in learning about their culture, but whatever the looks mean, its impact is that young Muslim women feel different and uncomfortable, othered from the rest. Diversity and representation can come in various ways, such as having young Muslim women coaches at sports spaces or even in sports marketing. This will encourage young Muslim women to engage in physical activity in sports spaces while freely expressing their identity.

Lastly, the genderizing discourse in sports culture plays a role in young Muslim women's construction of what a safe physical activity space is. For instance, Omayma mentioned the 'bro' culture that was present in the space, as she described, made her feel uncomfortable. Specifically, Omayma is talking about how the sports culture in the gym, especially among men, was about competition, showing off, and the ability of how much weight you can lift rather than each individual focusing on oneself and exercising to improve mental and physical health. Omayma said: *“it was like that gym was kind of known to have a culture of just like people competing with one another.”* Omayma added: *“people would kind of show off or like you would see them looking at how much weight*

you were like lifting to kind of gauge like if you were strong or not.” Thus, for Omayma, the gym she attended was male-dominated, and the atmosphere was competitive. For her, this was a toxic environment that discouraged her from engaging in weightlifting because she felt insecure about her ability to lift weights. Therefore, a toxic physical activity environment that is filled with negative competition vibes rather than self-development is viewed as an ‘unsafe’ space by some individuals attending the physical activity space.

4.5 Summary

In summary, religious practices, cultural norms, and social support are crucial in shaping young Muslim women’s engagement in sports and physical activity. In addition, these factors and past lived experiences are detrimental to how young Muslim women construct, negotiate, and maintain their religious, ethnic, gendered, and physically active identities in physical activity spaces and how they construct their perceptions regarding the notion of safety in physical activity spaces. It was essential to explore young Muslim women’s engagement in physical activity using critical race feminism theory and the lens of Orientalism to understand how religious practices, cultural expectations, and social support challenge false narratives and stereotypes for this demographic and how they resist these stereotypes to maintain their identities and construct safe physical activity spaces.

Chapter 5

5 Conclusion

In conclusion, the study has been dedicated to understanding the unique experiences of young Muslim women university students with physical activity and sports. It has focused on their perceptions of safe physical activity spaces and how they maintain their religious, ethnic, gendered, and physically active identities in these spaces. The study has examined the influence of inclusion, exclusion, belonging, and otherness on women's experiences, fostering a deeper connection and empathy with their construction of safe physical activity spaces and identities.

After analyzing the research data, three main themes were generated. The first theme represents young Muslim women's unique experiences with physical activity, focusing at three main life factors with significant influence on their engagement in physical activity: (1) religious teachings, (2) ethnic background and cultural norms, and (3) social support. Firstly, participants generally viewed that their religious teachings positively contributed to their engagement in physical activity because it encouraged them to adopt a healthy lifestyle through engagement in physical activity. However, challenges arise due to the misconceptions and false stereotypes regarding the hijab being viewed as a barrier to their engagement in physical activity in Global North countries because the meaning and interpretation of the religion vary in different contexts. Therefore, a lack of knowledge and awareness about the needs of young Muslim women results in the development of misconceptions about the hijab and the lack of inclusive sporting environments for this demographic.

Secondly, cultural norms and expectations were a contributor to young Muslim women's engagement in physical activity. The study included participants from a variety of cultural backgrounds, which made it possible to see how physical activity may be interpreted across cultures and how this has influenced young Muslim women's engagement in physical activity. For some participants, physical activity was part of their culture and was seen as the norm. Thus, their culture did not have an influence on their engagement in physical activity, such as in the case of Yasmine, where dancing was part

of her culture. Some participants who grew up and lived in Canada for a long time were influenced by the Canadian culture rather than their own culture. For instance, Omayma lived most of her life in Canada. She saw a strong emphasis on physical activity since her time in elementary school. As such she continued to engage in physical activity and was okay with joining a co-ed gym. On the other hand, some participants mentioned that according to their cultural norms and expectations, they were not encouraged to engage in physical activity as this was not the norm in their culture. However, they overcame this challenge for other reasons, such as parental support. They engaged in sports, such as the case of Jana, who was encouraged by her parents and became a serious soccer player despite her culture not encouraging it. Lastly, participants who received social support from social networks, such as parents, friends, and sports coaches, were encouraged and motivated to engage in physical activity. This social support played a crucial role in challenging and resisting false narratives and stereotypes regarding young Muslim women's engagement in physical activity and sports, highlighting the power of community.

The second theme examined how young Muslim women negotiate and maintain their ethnic, religious, and physically active identities in physical activity spaces and how it shapes their experiences with physical activity. It looks like that these young Muslim women construct their identities based on their knowledge of self and body. For instance, being aware of one's physical capabilities and understanding one's beliefs, values, and self-worth in relation to physical activity play a significant role in maintaining one's ethnic, religious, and physically active identities when engaging in physical activity. This understanding of one's beliefs and values in relation to physical activity underscores the importance of self-awareness in shaping one's identity and experiences.

The last theme explored physical activity spaces and the notion of safety. Many factors contribute to how young Muslim women perceive and construct safe sporting spaces. In general, young Muslim women view physical activity spaces as safe when there is the absence of racism, discrimination, and stigma; when they feel included, comfortable, and have a sense of community and belonging; and when the spaces are diverse and young Muslim women are represented in these spaces.

The idea of resistance was prevalent across all the themes explored in the study. Resistance when talking about young Muslim women's engagement in physical activity manifests as a challenge in itself. As we have seen, young Muslim women navigate religious, cultural, and societal norms in the society they live in; thus, resistance acts as a challenge in some cases when it comes to pushing back on the norms and redefining perceptions in relation to their engagement in physical activity. For instance, parental support for their daughters' engagement in physical activity is a form of resistance to the cultural norms that may hinder young Muslim women's engagement in physical activity. Another example is the struggle to maintain religious and physically active identities in physical activity spaces, such as modifying sporting clothes to meet religious practices in terms of modesty while engaging in sports. This acts as a form of resistance to false stereotypes such as young Muslim women cannot engage in sports because of the hijab. By maintaining both religious and physically active identities and modifying physical activity uniforms to meet one's needs, it resists the false narrative that Muslim women cannot engage in physical activity. Resistance involves advocating for accessible and inclusive sporting spaces that consider young Muslim women's needs when engaging in physical activity, thus promoting their participation in physical activity and sports and reshaping the societal narrative regarding their abilities and interests in physical activity.

Resistance is also central to the personal experiences of young Muslim women as they navigate internal beliefs and external pressure in relation to their engagement in physical activity. For instance, many young Muslim women who participated in the study were not aware of their physical capabilities. However, after they started engaging in physical activity, they became aware of their body and self and their physical capabilities. Therefore, there is a form of resistance as they are confronting self-doubt in their physical capabilities, thus helping them to develop their physically active identities. Another example is that some young Muslim women were fine with engaging in physical activity at a co-ed gym; others prefer women-only physical activity spaces. Therefore, there is a form of resistance to external barriers such as lack of access to suitable physical activity spaces for women who prefer women-only spaces. The lack of women-only physical activity spaces acts as a barrier since co-ed spaces exclude some young Muslim women's participation. Therefore, some forms of resistance, such as advocacy, endurance, and

perseverance, are required for young Muslim women to navigate the societal norm of having co-ed gyms in Global North countries and request women-only physical activity spaces that cater to their needs. In summary, resistance can occur when navigating religious practices, cultural norms, societal expectations, social support, and identity when engaging in physical activity which is a crucial influence in shaping young Muslim women's experiences with physical activity.

5.1 Strengths and Limitations

The research study had multiple strengths. First, the participants represented various cultural backgrounds, which allowed me to explore each individual's unique experiences. Second, by conducting episodic interviews, I could look at the participants' lived experiences at certain times and moments in their lifetime, which provided me with a good picture of how their current experience with physical activity was influenced by their past experiences. Lastly, the use of critical race feminism and Orientalism theories as analytical frameworks helped analyze and understand how false stereotypes regarding young Muslim women's engagement in physical activity can be challenged to be able to provide this demographic with inclusive sporting environments in the future.

Besides its strengths, the study had some limitations. In my opinion, it would be better to recruit more participants who do not wear the hijab to compare and contrast how the experiences of young Muslim women with physical activity are similar and/or different from those of those who wear the hijab. Second, a more detailed exploration of the concepts of identity and space is required. These aspects of the study emerged from the analysis stage, thus, it would be best to include more questions about these topics to explore more details regarding identity and safe physical activity spaces.

5.2 Implications and Recommendations for Future Research

For future research, exploring the concepts of identity, resistance, and physical activity spaces in more detail is recommended to better understand how these factors shape young Muslim women's experiences with physical activity. This research has provided some insight into these factors, but more research is required. One way to do so is by conducting participant observation in physical activity spaces and developing field notes

because this will provide a richer and deeper insight into how young Muslim women negotiate and maintain their religious, ethnic, gendered, and physically active identities and resist false narratives regarding their participation in physical activity in physical activity spaces.

In addition, general physical activity promoters in London, Ontario, or other communities in Global North countries can benefit from this research because it will provide them with some of the young Muslim women's experiences with physical activity. Therefore, they will have insight into the needs of young Muslim women when working with other stakeholders to create physical activity opportunities. This has the potential to help create more inclusive and accessible physical activity spaces for young Muslim women which will encourage more engagement.

Lastly, physical activity promoters and managers at Western University can benefit from the experiences of these young Muslim women studying there. As mentioned earlier, some participants mentioned that the recreational centre pool does not meet their needs. Therefore, the experiences of young Muslim women presented in this research will help employees at Western reflect on the potential need for a change in policy in relation to recreational and sporting infrastructure.

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Appendices

Appendix A: Letter of Information and Consent Form

Study Title

The Exploration of Sociocultural Impacts on Physical Activity Levels Among Muslim Women Western University Students.

Principal Investigator

Dr. P. David Howe, PhD
School of Kinesiology, Faculty of Health Sciences
Western University

Student Researcher

Mais Awadallah, BHSc, MSc student
School of Health Studies, Faculty of Health Sciences
Western University

You are invited to participate in this research study about the impact of social and cultural factors on Muslim women university students' participation in physical activity. We need to hear from you to understand if sociocultural factors have influenced your physical activity levels.

Introduction

This study aims to examine the role of social and cultural factors on Muslim women university students' physical activity levels. The study will examine how the intersection of individual, social, cultural, and environmental factors may impact their participation in physical activity at Western University.

Background/Purpose

Statistics show that Canadians are not meeting the recommended physical activity guidelines. Although low engagement in physical activity is present in the general population, research suggests that subpopulations, such as Muslims and immigrants, are at an even higher risk of physical inactivity due to factors such as religion, gender, culture, etc. Specifically, Muslim women are at a greater risk of not engaging in physical activity. Therefore, this study is worth pursuing because it will uncover Muslim women university students' stories and perceptions regarding physical activity, as well as barriers and facilitators to their engagement, so that physical activity programs that are accessible and inclusive of Muslim women may be developed. Physical activity interventions designed to meet the needs of Muslim women university students are essential because they will provide opportunities for them and new domestic and international Muslim women university students to engage in physical activity, reducing the risk of chronic diseases associated with physical inactivity.

Study Design

This qualitative research study will use individual interviews as the main data collection method. Other methods like visual timelines and photographs may be used during interviews to collect rich and detailed data.

- The student researcher, Mais Awadallah, will conduct with you one individual interview. This interview will run for about 60 minutes.
 - The interview will be audio-recorded using a phone to help the researcher generate interview transcripts that are essential for analyzing the data.
 - Interview transcripts will be generated and analyzed using statistical and qualitative data analysis software.
 - Name of the software: NVivo
 - The use of the software: this software will be used to generate interview transcripts and analyze the data collected during interviews.
 - The country where the server is located: Canada
 - Link to the privacy policy: https://help.mynvivo.com/nvtranscription/Content/NVT_data_security.htm#Filedeletion
 - Statement of risk: While we try our best to keep your data secure, private, and confidential, there is nothing over the internet that is 100% safe. By participating in this study, you are aware that there is a risk of privacy breach.
- The visual timeline method in this study will be used and created from a participant's life event, placed in some sort of chronological order, to help the researcher understand how lived experiences across time influence participation in physical activity. Visual timelines will be collected and disseminated with the research results to support the data of the study and contribute to the reader's understanding of the study results.
- You will be asked to bring any photos with you during the interview, if you want, that show your experience with physical activity. If you decide to bring photos to the interview, the photos will not be collected from you and will not be disseminated with the research results. The photos will only be used for the purpose of prompting discussion during the interview.

This study will take place over a time span of two months.

Procedures

If you agree to participate, you will be asked to:

- Fill out a screening questionnaire to confirm your eligibility to participate in the study. This is to be done after you read the letter of information and confirm that you have understood the purpose and the nature of the study. The screening form should be completed before signing the consent form
- Participate in a one face-to-face individual interview.

Location of the study

The interview will be conducted in-person, in a public or private space, depending on your preference, at Western University. If you choose to have the interview done in a private space, the interview will be conducted in a meeting room in our lab at Western University.

Voluntary Participation

You may refuse to participate in any of the proposed activities at any time.

Withdrawal from Study

At any point in time, you are free to leave the study.

If you decide to withdraw from the study, you have the right to request (e.g., by phone, email, etc.) the withdrawal of information collected about you. Upon your withdrawal, the researcher may still use your information unless you would like otherwise. If you wish to have your information removed, please let the researcher know, and your information will be destroyed from our records. Once the study has been presented, we cannot withdraw your information. It is important to note that a record of your participation must remain with the study, and as such, the researchers may not be able to destroy your signed letter of information and consent or your name on the master list. However, any data may be withdrawn upon your request.

Benefits

There are no direct benefits to participating in this study. However, there are potential benefits to society. By illuminating Muslim women university students' stories, lived experiences, barriers, and facilitators to their engagement in physical activity, health promoters and health policymakers will be able to develop and implement efficient, feasible, accessible, and inclusive physical activity programs for Muslim women across Canadian universities, in the future, that will provide them with opportunities to participate in physical activity and encourage them to adopt healthy lifestyle habits.

Risks

There are no major risks in participating in this study. However, participants might experience emotional distress when disclosing their lived experiences, topics about social support, and barriers to engaging in physical activity. If the study may have triggered emotional distress, several resources are available for help. For further information, visit:

- Western University:
 - Website: <https://www.uwo.ca/health/psych/index.html>
- Naseeha Helpline:
 - Website: <https://naseeha.org/>
 - Email:
 - Telephone:
- Khalil Center:
 - Website: <https://khalilcenter.com/>
 - Email:

- Telephone:
- Canadian Mental Health Association (CMHA): Middlesex
 - Website: <https://cmhamiddlesex.ca/intake-form/>
 - Email:
 - Telephone:

Also, it is important to note that while we try our best to keep your data password-secured, private, and confidential on Western's drive, there is a risk of privacy breach as nothing over the internet is 100% safe.

Reminders and Responsibilities

By accepting to participate in this study, you agree:

- To be contacted via phone or email when required.
- To arrive at the interview on time. If you cannot make it to your scheduled interview, please give the student researcher, Mais Awadallah, at least 24-hour notice to schedule an interview on another day.

By accepting to participate in this study, you are aware that:

- You are free to withdraw from the study at any point in time. You have the right to request the withdrawal of information collected about you. It is important to note that a record of your participation must remain with the study, and as such, the researchers may not be able to destroy your signed letter of information and consent or your name on the master list. However, any data may be withdrawn upon your request.
- The face-to-face individual interview will be audio recorded to facilitate data analysis. The recordings will be accessible only to the student researcher, the principal investigator, and the co-investigator.
- The findings/conclusion of the study will be published and may be shared in future conferences. Your identity will be kept anonymous using pseudonyms. All direct quotes will be reported using pseudonyms. All identifiable data will be kept confidential and will be secured in our records (it will not be shared/published).
- There will be a master list linking your identifiable information (your name, phone number, and email address) to the pseudonym assigned to you. This master list will be secured and stored in our database. It will not be published. The master list will only be used to know the pseudonym assigned to each participant. Only the student researcher, the principal investigator, and the co-investigator will have access to this master list.
- The study records will be physically transported outside of Western University because the student researcher will sometimes work remotely from home. However, all study records will be stored on Western's University database/one drive and protected by a password.
- It is important to note that while we try our best to keep your data password-secured, private, and confidential on Western's drive, there is a risk of privacy breach as nothing over the internet is 100% safe.

Confidentiality

In the screening questionnaire and during interviews, the names of the participants will be collected for the purpose of the research study and will not be shared on any platform. All participants' information will be secured and kept confidential on Western's drive, where it is protected by a password. Only the student researcher, the principal investigator, and the co-investigator will have access to participants' information. It is important to note that delegated institutional representatives of Western University and its Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research in accordance with regulatory requirements. After the completion of this research study, all documents and identifiable information will be retained for 7 years because according to Western University's policy, the data retention period is 7 years post-project completion. The data will be retained by the principal investigator, Dr. David Howe.

Compensation

You will not be compensated for your participation in this research.

Rights as a Participant

Your participation in this study is voluntary. You may decide not to be in this study. Even if you consent to participate, you have the right not to answer a question during the interview or withdraw from the study at any time.

Questions about the Study

If you have any questions or concerns about this research study, or you have any questions about your rights as a research participant or the conduct of this study, please contact Mais Awadallah.

Consent

After you read the letter of information and confirm that you have understood the purpose and the nature of this study, you will be asked to sign a consent form after completing the screening form and confirming your eligibility to participate in the study. The consent form is to be done and completed at the end of this information session and given to the student researcher, Mais Awadallah. A copy of your signed consent form will be provided for you to keep.

CONSENT FORM**Study Title:**

The Exploration of Sociocultural Impacts on Physical Activity Levels Among Muslim Women Western University Students.

Student Researcher: Mais Awadallah, BHS, MSc student

Principal Investigator: Dr. P. David Howe, PhD

Participant:

I have read the Letter of Information and have had the nature of the study explained to me. I agree to participate in this research study. All questions have been answered to my satisfaction.

Print Name of Participant

Signature

Date (DD-MMM-YYYY)

Researcher: My signature means I have explained the study to the above participant. I have answered all questions.

Print Name of Researcher

Signature

Date (DD-MMM-YYYY)

Appendix B: Ethics Approval Letter



Date: 5 May 2023

To: Dr Carla Silva

Project ID: 122482

Study Title: The Exploration of Sociocultural Impacts on Physical Activity Levels Among Muslim Women Western University Students

Short Title: Exploring Physical Activity Among Muslim Women Western University Students

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 02/Jun/2023

Date Approval Issued: 05/May/2023 14:14

REB Approval Expiry Date: 05/May/2024

Dear Dr Carla Silva

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

Documents Approved:

| Document Name | Document Type | Document Date | Document Version |
|--|------------------------|---------------|------------------|
| Interview Guide | Interview Guide | 25/Apr/2023 | 2 |
| Debriefing Letter | Debriefing document | 25/Apr/2023 | 2 |
| Recruitment Post - PA Research Study | Recruitment Materials | 25/Apr/2023 | 2 |
| Letter of Information and Consent Form | Written Consent/Assent | 04/May/2023 | 3 |

Documents Acknowledged:

| Document Name | Document Type | Document Date | Document Version |
|----------------------------|------------------------------|---------------|------------------|
| List of Support Services | Other Materials | 18/Mar/2023 | 1 |
| Recruitment Screening Form | Screening Form/Questionnaire | 04/May/2023 | 3 |

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix C: Recruitment Post

PARTICIPANTS NEEDED FOR RESEARCH ABOUT PHYSICAL ACTIVITY

We are looking for volunteers to take part in a study **exploring the sociocultural impacts on physical activity levels among Muslim women university students.**

We are recruiting English-speaking Muslim women who are currently studying at Western University and under the age of 30.

If you are interested and agree to participate, you will be asked to participate in an in-person interview to discuss your experience with physical activity as a Muslim woman studying at Western University.

Your participation would involve 1 interview session. The interview session will be about 60 minutes long, and it will be conducted at Western University. The interview session will be audio-recorded.

For more information about this study or to participate in this study,
please contact:

Student Researcher

Mais Awadallah
Faculty of Health Science
Western University
Email:

Principal Investigator

Dr. P. David Howe
School of Kinesiology, Faculty of Health Science
Western University
Email:

Appendix D: Recruitment Screening Form

To help us ensure you meet the eligibility criteria for this study, please answer the following questions.

1. Participant's assigned pseudonym:

2. Do you identify yourself as a Muslim woman?

Yes No

3. Do you study at Western University?

Yes No

4. Are you under the age of 30?

Yes No

5. Do you speak and understand the English language?

Yes No

Date: _____

Signature of Person Conducting the Research: _____

Appendix E: Interview Guide

1. Introducing the idea of the episodic interview

- a. Interviewer: “I am conducting a study about the experiences of Muslim women with physical activity (PA) studying at Western University. In this interview, I will ask you repeatedly to recount situations that are linked to your experiences with physical activity as a young Muslim woman university student – your own but also in general.”

2. The participant’s concepts of physical activity, and early experiences with physical activity at Western

- a. What do you think about when you hear the term physical activity?
- b. What do you think about when you hear these two terms together: physical activity and Muslim women?
- c. Tell me about your experience with physical activity before coming to Western University. Could you please share a situation that showcases your experience with physical activity before coming to Western? Please use the visual timeline and share photos, if possible, that showcases your experience.
- d. Tell me about your experience with physical activity after coming to Western University. Could you please share a situation that showcases your experience with physical activity after coming to Western? Please use the visual timeline and share photos, if possible, that showcases your experience.
- e. Could you please remember the beginning of your experience with physical activity as a young Muslim woman at Western University - what was the beginning of your experience with physical activity at Western like?
 - i. Possible follow-up questions(s):
 1. How did you come to the decision about starting to engage/not engage in physical activity at Western? Could you please tell me a situation that contributed to your decision-making.
 2. What role does physical activity play for you these days as a young Muslim women university student at Western? Can you please share a situation in your life that illustrates this role.
 3. Using the visual timeline, can you point to me a time when you were the most encouraged/discouraged to engage in

physical activity? Please tell me a situation that illustrates this.

3. **Intrapersonal factors**

- a. Can you tell me about a situation that played a role in shaping your current attitude and experiences regarding physical activity?
 - i. Possible follow-up question(s):
 1. How do you think your religion (Islam) shaped or influenced your current perceptions and attitude with physical activity?
 2. How do you think your culture shaped or influenced your current perceptions and attitude with physical activity?
 3. How do you think your gender and identity as a Muslim woman shape your experience with physical activity?

4. **Interpersonal factors**

- a. How do you think your social network (family, friends, etc.) shapes your current experience with physical activity? Can you use the visual timeline to talk about a situation during a specific time that showcases how your social network shaped your experience with physical activity?
 - i. Possible follow-up questions:
 1. Lack of support: why do you think lack of support has hindered/motivated you to engage in physical activity?

5. **Organizational factors**

- a. How do you think the rules and regulations placed by the sports facilities (e.g., the gym) at Western shaped your experience with physical activity? Please tell me a situation of how rules and structures influenced your experience.

6. **Community and Public policy factors**

- a. How do you think being part of the Western University community, in general, shaped your experience with physical activity?
- b. Have you considered the potential of participating in a sports team at Western? How do you think your decision to participate/not participate in a sports team at Western is shaped? What factors influences your decision?
- c. Tell me about your experiences and interactions with the MSA activities at Western. How often are you involved with the sports activities organized by the MSA at Western?

i. Possible follow-up questions:

1. How has participating in the sports activities organized by the MSA shaped your experience with physical activity at Western?

7. Accessing physical activity opportunities

- a. What participation opportunities have you taken advantage of or used while studying at Western University? Can you please use photos, if possible, to describe your experience?
- b. How would you feel if you had access to physical activity opportunities (programs, facilities, etc.) that meet your needs?
- c. How do you think having access to opportunities will influence your participation in physical activity? In what way your participation in physical activity will change?

8. Collecting demographics

- a. Can you please provide me with the following demographic data: (a) your cultural background; (b) immigrant status à international/domestic student?

9. Ending the interview

- a. What was missing from the interview that could have given you an opportunity to mention your point of view or talk more about your experience?

Appendix F: Debriefing Letter

Project Title: Exploring Physical Activity Among Muslim Women Western University Students

Principal Investigator: Dr. P. David Howe, PhD

Student Researcher: Mais Awadallah, BHSc, MSc student

Thank you for your participation in this study. The purpose of this study was to explore the sociocultural impacts on physical activity levels among Muslim women university students studying at Western University.

This a reminder that all of your personal information will be secured and kept confidential on Western's drive, where it is encrypted, and password protected. Only the research team (principal investigator, co-investigator, and research assistant) will have access to your personal information. All documents and identifiable information will be retained for 7 years post-project completion by the principal investigator. The results of this research study will be published anonymously using pseudonyms. If you have any questions or concerns, please contact Mais Awadallah.

***If the study may have triggered emotional distress, several resources are available for help. For further information, visit:**

- Western University:
 - Website: <https://www.uwo.ca/health/psych/index.html>
- Naseeha Helpline:
 - Website: <https://naseeha.org/>
 - Email:
 - Telephone:
- Khalil Center:
 - Website: <https://khalilcenter.com/>
 - Email:
 - Telephone:
- Canadian Mental Health Association (CMHA): Middlesex
 - Website: <https://cmhamiddlesex.ca/intake-form/>
 - Email:
 - Telephone:

Thank you,

Dr. Howe and Mais

Appendix G: List of Support Services

***If the study may have triggered emotional distress, several resources are available for help. For further information, visit:**

- Western University:
 - Website: <https://www.uwo.ca/health/psych/index.html>
- Naseeha Helpline:
 - Website: <https://naseeha.org/>
 - Email:
 - Telephone:
- Khalil Center:
 - Website: <https://khalilcenter.com/>
 - Email:
 - Telephone:
- Canadian Mental Health Association (CMHA): Middlesex
 - Website: <https://cmhamiddlesex.ca/intake-form/>
 - Email:
 - Telephone:

Curriculum Vitae

| | |
|---|--|
| Name | Mais Awadallah |
| Post-secondary Education and Degrees | The University of Western Ontario London, Ontario, Canada 2018-2022 B.HSc. The University of Western Ontario London, Ontario, Canada 2022-2024 M.Sc. |
| Honours and Awards | The Western Scholarship of Excellence 2018-2019 Dean's Honour List 2019-2020, 2020-2021, 2021-2022 |
| Related Work Experience | Graduate Teaching Assistant The University of Western Ontario 2022-2024 Exam Proctor The University of Western Ontario 2023-2024 |
| Certifications | The Teaching Assistant Training Program The University of Western Ontario 2022 TCPS 2: CORE 2022 Government of Canada 2022 First Aid & CPR/AED level C Canadian Red Cross 2023 |

Publications

Patel, A., Munjal, K., Awadallah, M., & Fatima, M. (2021, July 28). Learners Leading: How Western University Students Helped Launch a Local PaRx Program in Ontario. *Park Prescriptions*. <https://www.parkprescriptions.ca/blogposts/learners-leading-how-western-university-students-helped-launch-a-local-parx-program-in-ontario>