

## **An exploration of physical activity, migrant women and leisure experiences**

Authors:

**Danielle McDonald**

Faculty of Arts and Social Sciences, University of Technology, Sydney, NSW, Australia

**Hazel Maxwell**

College of Health and Medicine, University of Tasmania, Hobart, Tasmania, Australia

**Leila Gholizadeh**

Faculty of Health, University of Technology, Sydney, NSW, Australia

**Nina Burridge**

Faculty of Arts and Social Sciences, University of Technology, Sydney, NSW, Australia

### **ABSTRACT**

Physical Activity is linked to a wide range of social, psychological, and physical health and leisure benefits. However, many sub-groups of the Australian population experience inequity in accessing opportunities to engage in this health promoting behavior. Migrant women, from non-English speaking backgrounds, report the lowest levels of physical activity participation within Australia. This study explores the perceptions of physical activity among a group of migrant women living in Sydney, Australia. Focus group interviews and written narratives were used to explore the experiences and perceptions of 81 women born in the Middle East and in North Africa. Key findings include new insights regarding the way the term 'physical activity' was defined and understood among the participant group, as well as the perceived benefits, enablers, motives, and barriers to participation. These results provide guidance and direction for future policy development and health messaging, with a strong focus on addressing leisure inequity.

## **Introduction**

Physical Activity (PA), defined as 'any bodily movement produced by skeletal muscles that results in energy expenditure above the basal metabolic rate' (World Health Organisation, 2010, p.53), is associated with a wide range of social, psychological, and physical health benefits (Warburton & Bredin, 2017). Increased PA is related to decreases in the risk of premature mortality and is a commonly accepted means of risk reduction for numerous chronic illnesses (Pedersen & Saltin, 2015). Despite the well documented benefits of PA, opportunities to access this health behaviour are not equal across the Australian population (Joshi et al., 2017). Longitudinal trends in physical activity participation show that migrant women, from non-English speaking backgrounds, have consistently reported the lowest levels of PA participation within Australia across the last two decades (New South Wales Government, 2020). Furthermore, this low level of physical activity participation among non-English speaking migrants occurs widely across a range of Western Countries (Maxwell, 2012; Maxwell & Stronach, 2020). Within this subgroup, female migrants from the Middle East and North Africa living in Australia, reported low levels of PA (Australian Bureau of Statistics (ABS), 2013); Dassanayake et al., 2011). This group also faces health challenges that could be partially addressed through increased physical activity participation. As such, efforts to improve PA access among this group are warranted and gaining insight into their perceptions of PA is a key step in this process. Thus, the purpose of this study was to understand the ways Middle Eastern and North African born women living in Australia perceive, understand and experience PA.

## **Literature review**

A broad review of the relevant international literature provides a foundation for considering the PA experiences of migrant women in this study. Many studies have demonstrated the role of a wide range of factors impeding PA among migrant women, including traumatic processes around the immigration process, cultural, and religious barriers, such as the need for public modesty and gender-segregated facilities, as well as perceptions of gender roles within the family unit (Caperchione et al., 2011; Cortis et al. 2007; Gholizadeh et al., 2011; Hashimoto-Govindasamy & Rose, 2011; Kay, 2006; Maxwell & Stronach, 2020; Palmer, 2009; Walseth 2006). Also, language barriers play a role in reducing access to opportunities for PA (O'Driscoll et al., 2013; O'Driscoll 2016). Additionally, women from this subgroup have described experiences of social exclusion and racism, particularly in the context of sport (Maxwell et al., 2013; Sawrikar & Muir 2010; Taylor 2001). Issues relating to the costs associated with PA, as well as a lack of safe spaces, further contribute to reduced participation (Bird et al., 2009; Jang et al., 2015). Aligned with these findings, a group of Muslim women who had migrated to Denmark commented on the exhausting nature of their work as full-

time cleaners and then coming home to complete domestic duties and take care of their families (Lenneis & Pfister, 2017). They explained that there was very little time or energy left for physical activity after completing their work and family duties. Within the literature, barriers to physical activity often include issues such as a limited history of physical activity participation, low self-efficacy, and a lack of knowledge regarding the benefits of physical activity and ways to be physically active (Thai et al, 2019; Lenneis & Pfister, 2017; O'Driscoll et al., 2013). Caperchione et al's (2011) study of physical activity among culturally and linguistically diverse (CALD) women, found that Sudanese women in Australia experienced limited self-efficacy with physical activity due to a lack of understanding of specific Sudanese cultural activities within the Australian community. Their study emphasised the need for the promotion of activities which CALD communities have mastered and feel comfortable and confident taking part in. Similarly, Lenneis and Pfister (2017) also found low self-efficacy prevented physical activity participation among Muslim migrant women in Denmark. Aside from childhood games, participants did not have opportunities within their countries of origin to be physically active and acquire the necessary skills for continued participation across the lifespan. Thus, when it came to engaging in physical activity in adulthood, the women experienced fear and a lack of confidence in their ability. In contrast to this deficit approach, recent studies have focused on the enablers which facilitates the involvement of migrant women (Agergaard et al, 2016; Ahmad et al, 2020; Gagliardi et al. 2022; Thorpe et al. 2022). Social support, more specifically, having friends to take part in PA and sport with, has been shown to enable participation among migrant groups and asylum seekers (HaithCooper et al., 2018; Mojarad, 2016). A review of the experiences of CALD migrants in western society identified social support as a key enabler (O'Driscoll et al., 2013). Further evidence on the positive role of both social and family support in enabling physical activity is seen in Kobroly's (2019) study among Arab immigrants in Canada. As well as having people to engage in PA with, support and advice from health care professionals of the same cultural background has been documented as a vital enabler for physical activity among older CALD communities (Jang et al., 2015). In terms of intentions, illnesses, injuries, and pain have been cited as an initial source of motivation for PA for CALD women (Caperchione et al., 2011; Hartley et al., 2017; Gholizadeh et al., 2011; Jang et al., 2015; Nobles et al., 2020). A review of PA program experiences within older CALD communities in Australia found that participation was often motivated by chronic illness (Jang et al., 2015). The present paper builds on the existing literature regarding motives, enablers, and barriers and is guided by the research question, what are the perceptions of, and experiences with, PA participation among Middle Eastern and North African-born women living in Australia?

## **Theoretical framing:**

Social cognitive theory, specifically the constructs of reciprocal determinism (the way the individual, the environment and their behaviour interact), outcome expectations and self-efficacy (Bandura, 1978), provided a theoretical basis to understand the PA experiences of the women in the study. Reciprocal determinism provided a lens through which perceptions of PA could be explored and understood in depth. As an example, the need for gender segregated spaces demonstrates the interplay between the individual, their environment and their behaviour. Having access to these spaces was seen as an enabling environmental factor that positively influenced an individual's perceptions of access to PA, thus favourably impacting behaviour. Conversely, a lack of access to these spaces resulted in perceptions of reduced access to PA and therefore limited PA. Additionally, the construct of outcome expectations assisted in the analysis of the findings (Bandura, 1997). This particular construct helped to explain the various perceptions of PA and how expectations related to the outcomes of the health behaviour might influence participation, either negatively or positively. Lastly, the construct of self-efficacy, one's belief in their capacity to engage successfully in the specific behaviour, formed a basis of explanation for some participant behaviour. Informed by Bandura's (1978) theory, an exploration of the data revealed the ways in which self-efficacy evolved and which conditions helped to nurture this individual characteristic. These findings subsequently provided additional support and targeted guidance for strategies aimed at increasing access to PA. For instance, it was clear that opportunities to participate in PA in safe and supportive environments helped to build self-efficacy and thus influence participation. As seen in numerous PA studies, these particular theoretical constructs provided a means for interpreting and analysing the data and were useful in exploring and understanding physical activity behaviour (Rhodes et al., 2019).

## **Methods**

### *Research design and data collection*

As an in-depth understanding of the perceptions and experiences of PA participation of the women was required, qualitative exploratory techniques were adopted. Qualitative research plays a pivotal role in health research because of its ability to reveal rich and compelling insights into the lived experiences of those we are trying to understand (Braun & Clarke, 2014). Prior to the commencement of the study, ethical approval was obtained from the ethics committee at the University. An internet search was conducted to identify potential community organisations within Sydney. These organisations, who worked with migrants, were contacted via email. A total of six organisations from across Sydney agreed to take part in the study. Thorpe et al. (2022) emphasises the importance of engaging community leaders in research concerning PA among culturally and

linguistically diverse groups. In this instance, collaboration between the researcher and community leaders helped to ensure the focus groups were carried out in a culturally and gender sensitive manner. Data was collected using focus groups and individual written narratives. The focus group method was chosen in order to explore the participants' lived experiences with PA (Minichiello et al., 2008). The sessions began with general conversation and a cup of coffee or tea before commencing with discussion prompts. Throughout the discussion, flexibility was maintained to capture a holistic and authentic representation of the lived experiences of the participants. Four focus groups were conducted involving a total of 51 women (from organisations A, B, C and F as depicted in Table 1). As recommended by Halcomb (2016), the focus group interviews took place in locations where the participants would normally meet for their social gatherings, for example, one of the interviews took place where the women met weekly for a mother's group. These locations were community centres where the women met regularly and therefore provided the participants with privacy and familiarity. With the consent of the participants, each focus group interview was digitally recorded. During the focus group interviews, some group members with a greater levels of English language proficiency clarified some communication between the participants which mirrored an approach used in an exercise and PA study based in Northern England with asylum seekers (Haith-Cooper et al., 2018). The focus groups were conducted in a semi-structured format (Halcomb, 2016) and included questions such as: what kinds of physical activities, if any, do you currently take part in? and what benefits do you feel you get from physical activity? To ensure data was gathered in a way that reflected the varying experiences of the women, written questionnaires were offered for participants who preferred this method or could not make it to the focus group. No participants took part in both data collections. As depicted in Table 1, 30 women at four organisations (Organisations A, B, D, and E), elected to take part in the written narrative aspect of the research process. These participants were recruited by contacting the community centres and working with the community leaders to ascertain whether any members of their organisations may be interested in taking part. Each participant received an information letter and a questionnaire consisting of open-ended questions related to the participants' definitions and understanding of the concept of PA, the activities they take part in, perceived barriers, and perceived factors that motivate or enable participation. Participants A group of 81 women from six community centres across Greater Sydney took part in this study. Pseudonyms were used to ensure privacy and confidentiality. Participants were born in the region of the Middle East and North Africa as outlined by the ABS (2011). Countries of birth included Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Syria and Turkey. Languages spoken included Arabic, Dari, English, Farsi, Lebanese and Turkish. All participants were aged 18 years or older at the time of migration due to the influences of childhood PA patterns on adult behaviour (Ekblom-Bak et

al., 2018). Participant characteristics are included in Table 1. Data Analysis To make meaning of the data from the focus groups and the narratives, thematic analysis was conducted. Thematic analysis is an approach taken to detect, explore and report patterns within a qualitative data set (Braun & Clarke, 2014). Data were analysed using a six-phase process. This involved familiarisation with the data set by reading through the data several times. Following this, each relevant feature of the data was coded. That is, features which provided insight to the of perceptions of PA were identified. For example, a participant explained ‘for me, time is important, I don’t have much time in my hands. Working mother of three. The only things I need is more time in my day . . . I wish it was 48 hours not 24 hours this was coded to ‘perceived barrier due to a lack of time’ as well as as ‘perceived barrier due to family responsibilities’ and also ‘perceived barrier due to work commitments’. After the data had been coded, the codes were sorted into potential themes. These themes were then reviewed to ensure they formed accurate representations of the dataset. Once the themes had been reviewed, they were named and defined with a clear focus, scope, and purpose. The final phase of the analysis was the production of results that accurately represent the data, telling a story that aims to provide insight related to the research question.

## **Results**

Table 2 lists the themes that emerged relating to each component of the exploratory study. These results are next discussed under the six subheadings below, that is, definitions, value, benefits, motivation, enablers and barriers.

### ***Definitions***

Many participants used the term ‘movement’, and this was generally all encompassing. One woman stated, ‘PA is everything related to movement, either slow or rapid’ (Nesreen, Organisation D). PA was also defined as something beneficial to various aspects of health. Amira suggested that PA is ‘good for health, for heart, for body, for everything’ (Amira, Organisation C). The term ‘PA’ was also associated with the term’s ‘sport’ and ‘exercise’. In many responses, the terms ‘sport’ and ‘exercise’ were used as examples of PA. In some responses however, the terms were used interchangeably As well as being associated with sport and exercise, ‘PA’ was sometimes associated with other health behaviours. Several participants included the terms ‘nutrition’, ‘healthy eating’ and ‘healthy food’ when defining the term ‘PA’. While these terms are associated with the overall concept of ‘health’, they do not fit within the realm of PA. These particular terms were used alongside more accurate terms, for example, ‘sports, movement and healthy food’, however the potential for misinterpretation of the concept was highlighted in these instances. Similarly, the term ‘PA’ was sometimes associated with sedentary activities. Several participants mentioned sedentary activities

including 'reading' and 'sleeping'. This also indicates a level of confusion or misunderstanding related to the concept of PA among some participants. Some participants defined PA as activities that induce weight loss. In these definitions, there appeared to be a perception that the primary objective of PA was to lose weight. 'PA including all the activities that help us to lose weight, like walking, running' (Raziya, Organisation D.) Finally, the term 'PA' was defined by some as an activity requiring effort and inducing changes in physiological state. Participants utilised intrinsic feedback and defined PA in terms of the way they felt in their bodies. 'Anything that can bring the heart rate up can be considered PA' (Leila, Organisation F). When asked to provide examples of PA 26 specific activities were identified. Of these 26 activities, 22 fit within the WHO's (2010) definition of PA while 2 of the activities listed, namely, 'study' and 'reading', would generally be considered to be sedentary activities. Two other activities, namely 'cooking' and 'fishing' present a level of ambiguity in that some forms of cooking and fishing would be considered to be physically active, whereas others would be deemed sedentary. Among these examples, the four most common examples of PA provided by the participants were walking, dancing, housework and gardening.

### *Value*

A common theme to emerge from the data was the importance placed upon PA within the everyday lives of numerous participants. Afsaneh (Organisation F) explains 'I swim, every day, 5 times I am swimming, I love it, if I don't swim, I am not alive'. For some, there was an emphasis placed on the way they felt if they were not able to access PA. The value of PA was also communicated through examples of times when participants had to negotiate barriers to taking part, for example Saba (Organisation F) articulated "if I don't do my exercises, it feels like I am being sick, and I have a very stiff body too, but the exercise gives me flexibility, I love swimming and if I don't do it, I think I am getting sick'. PA was also identified as an agent for improved quality of life. Several participants commented on the ways in which PA added a sense of hope, purpose, and empowerment within their everyday lives. Yasmin (Organisation F) claims 'I have the energy, I am alive, I feel I can go and, tackle the world'.

### *Benefits*

Improved physical health was the strongest theme to emerge regarding the perceived benefits of PA participation. Beneficial outcomes included improved general health, improved cardiovascular health, management of chronic illness and reduced pain, for example, Saba (Organisation F) states 'I have arthritis. When I am stretching, I open the knots in my body. I can start moving'. PA was also perceived to improve mental and emotional health. This included general improvements in mental health, specific conditions that were improved by PA such as depression, improved mood, increased

happiness and reduced stress. Being physically active was also associated with increased energy levels and increased motivation. Participants described feeling empowered after taking part. 'It builds up my motivation and gives me energy, especially swimming' (Zivar, Organisation F). Some participants perceived PA to play a positive role in weight loss and weight management. The discussion included references to times when the participants had lost weight through PA. Others discussed PA as means of weight management and the prevention of weight gain. PA was also perceived to improve fitness. General improvements in fitness were discussed, as were specific elements including flexibility and mobility. 'Every day after I am doing swimming, and then I am coming home, I feel, my body feels I am fit. Sometimes forty five minutes, sometimes one hour. It's good for body'. (Afsaneh, Organisation F).

### *Motivations*

Within the data, there were several clear themes related to motives for PA. Firstly, PA was motivated by the desire to avoid the outcomes of physical inactivity and sedentary behaviour. Several participants commented on the way they felt if they did not take part in some form of PA, and that their motivation for PA came from a desire to avoid this feeling. 'If I did not do it for few years, I feel stuffed, my body and I don't feel good about it' (Roshanak, Organisation F.) PA participation was also motivated by the desire to mitigate the effects of chronic illness or pain. Participants referred to a specific medical condition, or some form of chronic pain that served as a catalyst for their engagement in PA. In some instances, incident chronic disease or injury facilitated participation in a new form of PA.

When I was 55, I had lots of problems . . . I said I'm scared I don't know how to swim, and he (the doctor) said don't swim just go and walk . . . I can't believe how good it was, warm water not cold water, yeah, I'm doing that every day – (Darya, Organisation B).

PA participation was also motivated by past positive experiences. Several participants referred to a benefit they had personally experienced as a result of their participation in PA. This benefit was associated with their motivation for subsequent or ongoing participation. The most common past positive experiences were a sense of feeling good and a sense of increased energy levels.

My body is so used to it, it's like if I don't do it, my body pushes me to go and do it, because I get so much energy and I feel so good, that's what motivates me to keeping do it. (Nastaran, Organisation F.)

The final motive for PA participation was social interaction as well as family and social support. For some participants, the desire for social connectedness and support was a factor that motivated PA



participation. PA was motivated by the opportunity for social interaction. I am doing exercise with friends most of the days.

I'm happy to meet them in gym, that's my hobbies (Safie, Organisation B).

### *Enablers*

A sense of perceived access to safe, conveniently located and culturally appropriate spaces was perceived to enable PA. This included access to gender-segregated spaces, spaces within a close proximity to the participants' homes, child friendly spaces and safe facilities such as well-lit parks. For example, one participant stated, 'I have access to female only swimming pools' (Noor, Organisation E). PA participation was also enabled by a sense of social support. Many responses indicated that social support made PA easier to access. This included support from friends, family members and other participants attending a structured activity. Abia (Organisation E) claims 'I am involved in a group which encourages me to do exercise'. A sense of self-efficacy was another enabling factor for PA participation with the word 'confidence' used when responding to the question regarding perceived enabling factors. This theme was also identified through descriptions of previous PA experiences that provided participants with the necessary skills for further participation. Several participants referred to the perception of having enough time as an enabler for PA participation. Some participants identified that they had enough spare time for PA, which enabled their participation. Others reflected on specific times in their past when they had adequate time and were thus able to be involved in some form of PA.

I like sports . . . but after I had my baby it's become difficult to spare time for myself yeah, I used to attend the gym I was a member uh you know now I've gotta sort some things out first . . . like put him in childcare maybe then I'll have more time for myself (Elvan, Organisation A). 454 D.

MCDONALD ET AL. Barriers Finally, the dataset revealed some clear themes related to perceived barriers to PA participation. Many participants were hindered by a lack of time. Among those who specifically attributed their lack of time to an external factor, common responses included competing priorities such as family responsibilities, work and day-to-day tasks such as shopping. 'For me, time is important, I don't have much time in my hands. Working mother of three. The only things I need is more time in my day . . . I wish it was 48 hours not 24 hours'. – Frida, Organisation B. Some participants commented on the expectations related to their role in the family and how impacted their time. Being the main caregiver for children and juggling domestic tasks were both identified as factors that constrained PA participation.

Because you've gotta watch for her like, um, for her like, mealtime, sleeping time things like that you know. And of course, being married uh brings all other responsibilities, you know, you've got to have the food ready when your husband gets back from work and things like that so um, and cos my daughter does not like sleeping at all she goes to bed really, really late and so she gets up late – Zena, Organisation A.

An additional theme was the perception of a lack of access to suitable spaces for PA participation. While some participants highlighted safety issues such as stray dogs and poor lighting, others commented on a lack of culturally appropriate spaces. For example, several participants commented on the lack of gender segregated spaces or spaces where they felt comfortable participating in Islamic dress. 'Sometimes it's because we wear scarf and the area is not provided for this kind of culture or religion background' – Samira, Organisation C. PA participation was also perceived to be hindered by ill-health, injury, chronic pain and fatigue. Though some participants found chronic illness and pain to be a motivating factor for PA participation, others did not, and instead found these conditions to limit their participation. A lack of social support was also cited as a barrier. Not having someone to take part in PA with, or not having access to group-based PA programs were factors that hindered participation. Likewise, PA was sometimes constrained through disapproval from family members. Concerns about PA participation included safety issues and apprehension about being in non-gender segregated spaces.

I love to go to gym but uh in some other cultures actually I mean you can join a woman's thing but my husband's a bit uh is actually concerned about that he doesn't really like me going to the gym . . . or want other men looking at me or whatever (Zena, Organisation A).

Finally, PA was hindered by a lack of motivation and or confidence. For some of the participants, a lack of confidence and fear was identified. For others, perceived benefits of PA were identified, but a lack of motivation prevailed, resulting in a lack of participation.

## **Discussion**

This study revealed insights regarding the perceptions of PA participation among Middle Eastern and North African born women living in Australia. Firstly, most participants within the current study demonstrated an understanding of the term 'PA' that was well aligned with that of the WHO (2010), and is consistent with previous research (Caperchione et al., 2011). Conversely, several other studies among CALD women revealed lower levels of understanding and confusion surrounding the concept of PA (Haith-Cooper et al., 2018, Mojarad, 2016; Segar et al., 2017). As indicated in the findings,

some participants used 'sport' and 'exercise' interchangeably. The interchangeable use of terminology has been documented across the wider literature (Dasso, 2019) and within studies exploring the PA experiences of CALD women (Caperchione et al., 2011; Eyler et al., 1998). Research highlights the resultant issues that may arise including negative influences on participation, or underestimated self-reported measures (Dasso, 2019; Eyler et al., 1998). As such, the current study supports the need for clarification of the way in which PA is defined and subsequently promoted (Dasso, 2019). Physical activity was also defined as activities that induce weight loss. This is congruent with previous research among young Canadian Muslim women which found that PA as a concept was consistently linked to losing weight and staying in shape (Jiwani & Rail, 2010). Rather than being constructed as something good or positive in and of itself, PA was constructed in the study as a means to obtain an ideal body shape. This is important to note, considering recent evidence of the negative impacts of PA messages that centre weight loss and aesthetic ideals (Thai et al., 2019; Dollar et al., 2017; Pickett & Cunningham, 2017). Though it is positive to see a wide range of activities existing within the participants' definition of the concept of PA, it is important to consider the possible influence of gendered societal ideals regarding women's participation in PA (Jiwani & Rail, 2010). When considering the promotion of increased PA among the study population, the findings of this study support the promotion of a variety of sustainable and accessible forms of PA (Thai et al., 2019; Dasso, 2019; Nobles et al., 2020). In line with the SCT construct of reciprocal determinism (Bandura, 1978), definitions of PA are undoubtedly influenced and shaped by individual differences and environmental factors (Dasso, 2019). That most participant responses aligned well with the WHO's (2010) definition of physical activity, suggests that past PA experiences and previous education and or exposure to information about the concept of PA, have favourably shaped the way it was subsequently defined and understood. Though most definitions were well aligned with the widely accepted definition of physical activity, the presence of some confusion exerts demand on the environment, highlighting the need for messages that clearly outline what is meant by the term 'physical activity' (Dasso, 2019). In some contexts, research shows that PA is perceived as a valuable aspect of life among CALD women (Maxwell et al., 2013). For example, Maxwell and colleagues (2013) found that being involved in a local sporting club provided opportunities for social connectedness and belonging among Muslim women in Australia, an outcome shaped by key practices aimed at facilitating social inclusion. In contrast to the present study, Gholizadeh et al. (2011) found that health behaviours, including PA, were not prioritised by some Middle Eastern women in Australia until their medical conditions progressed, indicating obvious health problems. Regarding the perceived value of PA, it is important to explore the outcomes of PA perceived most valuable, as these are the ones that will likely have the greatest influence on participation when

included in PA messaging (Segar et al., 2017), This echoes Bandura's (1978) work, emphasising the role of outcome expectations in the process of behaviour change. Several benefits of PA participation were identified, namely improved physical health, improved mental and emotional wellbeing, increased energy levels and motivation, weight loss and weight management, and improved fitness. Perceived improvements in physical health associated with PA have previously been documented (Caperchione et al., 2011; Mojarad, 2016; Haith-Cooper et al., 2018; Segar et al., 2017). In some cases, PA is perceived to play a role in the prevention and management of chronic illness (Haith-Cooper et al., 2018). However, other evidence indicates that despite the knowledge of the benefits of PA, it is sometimes perceived to be a luxury rather than a necessity among CALD women (Caperchione et al., 2011; Lenneis & Pfister, 2017). Perceived improvements in mental health were also identified in the present study. These included general improvements as well as specific improvements in depression and emotional wellbeing such as mood, increased happiness, and reduced stress. Prior research found that PA was perceived to enhance psychological wellbeing in the context of previous trauma (Caperchione et al., 2011). Improvements in fitness were associated with PA. Some participants mentioned feeling fitter, while others referred to specific aspects of fitness, namely, flexibility and mobility. As with the present study, perceptions of improved fitness have previously been identified (Haith-Cooper et al., 2018; Mojarad, 2016; Nobles et al., 2020) and previous research has shown that not engaging in PA was associated with negative intrinsic reactions related to reductions in elements of fitness (Haith-Cooper et al., 2018). The perception of increased fitness is a promising finding in the scope of health promotion. This is because fitness, specifically cardiorespiratory fitness, is a key indicator of mortality risk (Dollar et al., 2017).

Motives for PA included the desire to avoid the outcomes of sedentary behaviour, mitigation of the effects of chronic illness and pain, past positive experiences with PA, as well as social interaction, family, and social support. Participants commented on the way they felt both physically and mentally as a result of sedentary behaviour. For example, some participants felt that not moving their bodies caused them to feel stiff. For others, a lack of movement resulted in symptoms of depression. In congruence with present study, previous research found that perceived outcomes of sedentary behaviour served as a motive for PA (Haith-Cooper et al., 2018). Past positive experiences also played a role in motivating PA participation amongst the women. Having experienced benefits such as improved mood and increased energy levels served as a motive for subsequent participation.

This reflects previous research (O'Driscoll et al., 2013; Jang et al., 2015). Obtaining insight into the common positive experiences with PA may help to produce PA messages that are more likely to reflect outcomes valuable to the target group (Segar et al., 2017).

Furthermore, some participants were motivated by opportunities for social interaction, specifically in the context of group-based PA such as exercise classes. Family and social support were also identified as sources of motivation for PA, providing encouragement, and in some instances, the comfort of having someone to take part with. This echoes the idea of participating with the support of family and friends (Caperchione et al., 2009; Gholizadeh et al., 2011; Jang et al., 2015; Kay, 2006; Nobles et al., 2020; O'Driscoll et al., 2013).

Factors identified to enable PA included perceptions of access to safe, conveniently located and culturally appropriate spaces, social support, a sense of self-efficacy, access to affordable PA options and a sense of having enough time to take part. The need for gender segregated spaces has also been

seen in previous research (Maxwell, 2012, 2020), though prior studies generally focused on the future possibility of gender segregated spaces in enabling PA participation. Whereas in the present study, some participants indicated they already had access to these spaces, and this was currently enabling their participation. Conversely, on the topic of gender segregation, previous research revealed that the absence of gender segregation laws in their country of re-settlement, resulted in increased PA participation due to the ability to be able to take part with family members (Mojarad, 2016). That these findings differ from the present study, reflects the diverse needs among a heterogeneous group of women and supports the notion of working closely with target groups to best meet their requirements (El-Masri et al., 2019).

The participant group also cited numerous perceived barriers to PA. Firstly, many participants identified a lack of time as a factor often tied to expectations regarding the role women played within their families. Being the main caregiver and juggling domestic chores resulted in little time

left for PA. Within the research focusing on the experiences of CALD women, a lack of time is often reported as a barrier to PA (Caperchione et al., 2009; Caperchione et al., 2011). This is often attributed to the expectations of women to undertake the bulk of the domestic duties (Caperchione et al., 2011; Lenneis & Pfister, 2017). Some also mentioned that during family leisure time, their family's involvement created extra work for them.

In concurrence with previous research, PA messages should endeavour to communicate the role of domestic chores and incidental activity in contributing to the overall recommendations for PA (Thai et al., 2019; Segar et al., 2017). This is important to reduce the pressure of needing to do more, on top of already demanding schedules (Segar et al., 2017), and also to protect current PA participation. Factors related to the suitability of PA spaces also constrained participation, as previously documented (Caperchione et al., 2011; Gholizadeh et al., 2011). Issues of fear, and a perceived lack of safety within the neighbourhood, as well as a lack of culturally appropriate spaces (providing privacy and safety), often served as barriers for participation. Some participants mentioned not being able to take part in activities that did not provide gender segregated spaces, such as in the gym or at a pool. While other participants described feeling uncomfortable wearing Islamic dress in certain spaces.

A lack of social support was reported to prevent PA participation. Participants suggested that group exercise classes conducted in their existing community centres could help to overcome this barrier, a finding concurrent with previous research (Caperchione et al., 2009; Nobles et al., 2020). Others experienced disapproval from their family members, who were concerned about their participation in the presence of other males, as well as being worried about the potential for injury. The constraints of cultural ideals on PA participation have been identified in research regarding Muslim women (Maxwell, 2012; 2020; Walseth & Strandbu, 2014; Thorpe et al. 2022) and specifically among Middle Eastern women in Australia (Gholizadeh et al., 2011). Such findings

showcase the complex bi-directional relationships that exist between individual's, their environments and their behaviour (Bandura, 1978).

The final theme that emerged regarding the perceived barriers to PA, was a perceived lack of motivation and confidence. This theme reflects previous findings regarding barriers to PA within the relevant literature (Caperchione et al., 2011; Lenneis & Pfister, 2017). Some participants in the present study mentioned being aware of the benefits of PA but did not feel motivated to take part.

Also, some of the women discussed having previously experienced a lack of confidence, before having

positive experiences with PA which enabled them to subsequently build a sense of self-efficacy.

### Conclusion

The new knowledge uncovered in the present study has illuminated some practical implications for supporting access to PA participation among Middle Eastern and North African born women in Australia. Bandura's (1978) Social Cognitive Theory provided a lens for a thorough exploration of the PA perceptions and experiences and reiterated the importance of identifying, exploring and appreciating the complex interplay between an individual, their environment and their behaviour.

In particular, exploring the way PA was defined and understood produced some interesting and useful findings that shed light on the way the term is interpreted. This adds depth to the existing body of PA research which largely focuses on the perceived barriers and benefits, but in recent times, is trending towards a more thorough investigation of the impact of the term 'physical activity' itself, and the impact of varying interpretations (Cianciarra, 2021; Dasso, 2019).

This insight is important in the context of migrant health, in that messages and health promotion initiatives should incorporate a wide range of culturally relevant activities and endeavour to use correct terminology ensuring the concept of PA is accurately defined particularly to overcome language barriers. Also, as well as focusing on increases in PA, efforts should be directed at helping individuals identify aspects of their current lives that count towards physical activity. These everyday physical activities, such as walking, should be acknowledged as important health promoting

activities, with recognition given to their contribution to the overall health and wellbeing of this and other cohorts.

Additionally, the factors perceived to influence participation among the participant group, has helped to establish some specific recommendations. PA initiatives should be designed to provide the benefits deemed most valuable by the target group and should provide opportunities for social interaction through group-based activity. The promotion of safe, supportive and inclusive environments is vital in addressing PA and leisure inequity. For example, health, fitness, leisure and recreation facilities should provide culturally appropriate spaces to support access to PA. This research highlights the need for a multifaceted approach to current physical activity and leisure inequities.

#### **Notes on contributors**

Dr Danielle McDonald is a Clinical Exercise Physiologist and recent PhD graduate from the University of Technology Sydney. Her research interests revolve around physical activity, health promotion and health equity. She currently provides exercise physiology services in private practice on the NSW South Coast.

Dr Hazel Maxwell is a Senior Lecturer at the University of Tasmania. Her research interests include issues around health and well-being, physical activity, community sport, social inclusion and diversity management. Her career objectives are to contribute to the development of knowledge in the health, physical activity, leisure and community development spheres and to share this with others through her teaching and research.

Dr Leila Gholizadeh, a lecturer in the UTS Faculty of Health, has extensive clinical and research experience in the area of cardiovascular disease. Her research focuses on primary, secondary, and tertiary prevention of cardiovascular diseases and, in particular, understanding individual and socio-cultural factors that influence heart-disease management, such as risk perception and causal attributions.

Dr Nina Burridge is an Associate Professor and an Honorary Industry Fellow in the Faculty of Arts and Social Sciences at the University of Technology, Sydney. Her main research interests and publications centre on Education for social justice and human rights within Australia and in international contexts.



She has completed projects on Indigenous Education, Multiculturalism, human rights education and democratic citizenship and women's empowerment in Afghanistan.

## References

- Agergaard, S., Michelsen la Cour, A., & Gregersen, M. T. (2016). Politicisation of migrant leisure: A public and civil intervention involving organised sports. *Leisure Studies*, 35(2), 200–214. <https://doi.org/10.1080/02614367.2015.1009848>
- Ahmad, N., Thorpe, H., Richards, J., & Marfell, A. (2020). Building cultural diversity in sport: A critical dialogue with Muslim women and sports facilitators. *International Journal of Sport Policy and Politics*, 12(4), 637–653. <https://doi.org/10.1080/19406940.2020.1827006>
- Australian Bureau of Statistics. 2011. *Census Dictionary*, 2011. <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter1152011#4>
- Australian Bureau of Statistics. (2013). *Perspectives on Sport*. Nov 2013. <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4156.0.55.001Main+Features4Nov%202013>
- Australian Bureau of Statistics. (2016). *Census 2016, Country of Birth of Person by Year of Arrival in Australia*. [http://stat.data.abs.gov.au/Index.aspx?DataSetCode=ABS\\_C16\\_T07\\_SA](http://stat.data.abs.gov.au/Index.aspx?DataSetCode=ABS_C16_T07_SA)
- Bandura, A. (1978). The self system in reciprocal determinism. *The American Psychologist*, 33(4), 344–358.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Worth Publishers.
- Bird, S., Radermacher, H., Feldman, S., Sims, J., Kurowski, W., Browning, C., & Thomas, S. (2009). Factors influencing the physical activity levels of older people from culturally-diverse communities: An Australian experience. *Ageing and Society*, 29(8), 1275. <https://doi.org/10.1017/S0144686X09008617>
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being*, 9(1), 26152. <https://doi.org/10.3402/qhw.v9.26152>
- Caperchione, C. M., Kolt, G. S., Tennent, R., & Mummery, W. K. (2011). Physical activity behaviours of culturally and linguistically diverse (CALD) women living in Australia: A qualitative study of socio-cultural influences. *BMC Public Health*, 11(1), 26. <https://doi.org/10.1186/1471-2458-11-26>
- Caperchione, C., Mummery, W. K., & Joyner, K. (2009). Addressing the challenges, barriers, and enablers to physical activity participation in priority women’s groups. *Journal of Physical Activity & Health*, 6(5), 589–596. <https://doi.org/10.1123/jpah.6.5.589>

Cianciara, D., Sugay, L., Lewtak, K., Urban, E., Piotrowicz, M., Gajewska, M., & Cuchí, P. (2021). Dichotomy of lay people and health professionals perception of physical activity is a challenge for activity education and promotion within primary health care—a qualitative study. *Annals of Agricultural and Environmental Medicine*, 28(4), 645–653. <https://doi.org/10.26444/aaem/131555>

Cortis, N., Sawrikar, P., & Muir, K. (2007). Participation in sport and recreation by culturally and linguistically diverse women. Social Policy Research Centre, University of New South Wales. LEISURE STUDIES 459

Dassanayake, J., Dharmage, S. C., Gurrin, L., Sundararajan, V., & Payne, W. R. (2011). Are Australian immigrants at a risk of being physically inactive? *The International Journal of Behavioral Nutrition and Physical Activity*, 8(1), 53. <https://doi.org/10.1186/1479-5868-8-53> Dasso, N. A. (2019). How is exercise different from physical activity? A concept analysis. *Nursing Forum*, 54(1), 45. <https://doi.org/10.1111/nuf.12296>

Dollar, E., Berman, M., & Adachi-Mejia, A. M. (2017). Do no harm: Moving beyond weight loss to emphasize physical activity at every size. *Preventing Chronic Disease*, 14(34). <https://doi.org/10.5888/pcd14.170006>

Ekblom-Bak, E., Ekblom, Ö., Andersson, G., Wallin, P., & Ekblom, B. (2018). Physical education and leisure-time physical activity in youth are both important for adulthood activity, physical performance, and health. *Journal of Physical Activity & Health*, 15(9), 661–670. <https://doi.org/10.1123/jpah.2017-0083>

El Masri, A., Kolt, G. S., & George, E. S. (2019). Physical activity interventions among culturally and linguistically diverse populations: A systematic review. *Ethnicity & Health*, 1–21. <https://doi.org/10.1080/13557858.2019.1658183>

Eyler, A. A., Baker, E., Cromer, L., King, A. C., Brownson, R. C., & Donatelle, R. J. (1998). Physical activity and minority women: A qualitative study. *Health Education & Behavior*, 25(5), 640–652. <https://doi.org/10.1177/109019819802500510>

Gagliardi, A. R., Morrison, C., & Anderson, N. N. (2022). The design and impact of culturally-safe community-based physical activity promotion for immigrant women: Descriptive review. *BMC Public Health*, 22(1), 1–11. <https://doi.org/10.1186/s12889-022-12828-3>

Gholizadeh, L., DiGiacomo, M., Salamonson, Y., & Davidson, P. M. (2011). Stressors influencing middle eastern women's perceptions of the risk of cardiovascular disease: A focus group study. *Health Care for Women International*, 32(8), 723–745. <https://doi.org/10.1080/07399332.2011.562999>

Haith-Cooper, M., Waskett, C., Montague, J., & Horne, M. (2018). Exercise and physical activity in asylum seekers in northern England; using the theoretical domains framework to identify barriers and facilitators. *BMC Public Health*, 18(1), 762. <https://doi.org/10.1186/s12889-018-5692-2>

Halcomb, E. J. (2016). Understanding the importance of collecting qualitative data creatively. *Nurse Researcher*, 23(3), 6–7. <https://doi.org/10.7748/nr.23.3.6.s2> Hartley, L., Fleay, C., & Tye, M. E. (2017). Exploring physical activity engagement and barriers for asylum seekers in Australia coping with prolonged uncertainty and no right to work. *Health & Social Care in the Community*, 25(3), 1190–1198. <https://doi.org/10.1111/hsc.12419>

Hashimoto-Govindasamy, L. S., & Rose, V. (2011). An ethnographic process evaluation of a community support program with Sudanese refugee women in western Sydney. *Health Promotion Journal of Australia*, 22(2), 107–112. <https://doi.org/10.1071/HE11107>

Jang, H., Clemson, L., Lovarini, M., Willis, K., Lord, S. R., & Sherrington, C. (2015). Cultural influences on exercise participation and fall prevention: A systematic review and narrative synthesis. *Disability and Rehabilitation*, 38(8), 724–732. <https://doi.org/10.3109/09638288.2015.1061606>

Jiwani, N., & Rail, G. (2010). Islam, hijab and young Shia Muslim Canadian women's discursive constructions of physical activity. *Sociology of Sport Journal*, 27(3), 251–267. <https://doi.org/10.1123/ssj.27.3.251>

Joshi, S., Jatrana, S., & Paradies, Y. (2017). Are immigrants more physically active than native-born Australians and does it change over time? evidence from a nationally representative longitudinal survey. *Journal of Physical Activity & Health*, 14(2), 145–154. <https://doi.org/10.1123/jpah.2016-0002>

Kay, T. (2006). Daughters of Islam: Family influences on Muslim young women's participation in sport. *International Review for the Sociology of Sport*, 41(3–4), 357–373. <https://doi.org/10.1177/1012690207077705>

Kobrosly, S. (2019). Socioeconomic Determinants of Physical Activity among Adult Arab Immigrants in Edmonton, Alberta (Doctoral dissertation, Walden University).

Lenneis, V., & Pfister, G. (2017). When girls have no opportunities and women have neither time nor energy: The participation of Muslim female cleaners in recreational physical activity. *Sport in Society*, 20(9), 1203–1222. <https://doi.org/10.1080/17430437.2016.1269085>

Lenneis, V., & Pfister, G. (2017). When girls have no opportunities and women have neither time nor energy: The participation of Muslim female cleaners in recreational physical activity. *Sport in Society*, 20(9), 1203–1222.

Maxwell, H. (2012). An exploration of social inclusion in Australian community sport: The case of Muslim women [PhD Thesis, UTS]. Maxwell, H., Foley, C., Taylor, T., & Burton, C. (2013). Social inclusion in community sport: A case study of Muslim women in Australia. *Journal of Sport Management*, 27(6), 467–481. <https://doi.org/10.1123/jsm.27.6.467>

Maxwell, H., & Stronach, M. (2020). Developing sport for culturally and linguistically diverse women and girls. In *Developing sport for women and girls* (pp. 83–94). Routledge. Minichiello, V., Aroni, R., & Hays, T. N. (2008). *In-depth interviewing: Principles, techniques, analysis*. Pearson Education Australia.

Mojarad, E. A. (2016). Physical activity experiences of Persian women recently immigrated to Canada [Master's Thesis, Queen's University].

<https://qspace.library.queensu.ca/bitstream/handle/1974/15063/Ameli?sequence=1> 460 D.

MCDONALD ET AL. New South Wales Government. (2020). Physical activity in adults.

[http://www.healthstats.nsw.gov.au/Indicator/beh\\_phys\\_age/beh\\_phys\\_cob\\_snap](http://www.healthstats.nsw.gov.au/Indicator/beh_phys_age/beh_phys_cob_snap)

Nobles, J., Thomas, C., Banks Gross, Z., Hamilton, M., Trinder-Widdess, Z., Speed, C., Gibson, A., Davies, R., Farr, M., Jago, R., Foster, C., & Redwood, S. (2020). “Let’s talk about physical activity”: Understanding the preferences of under-served communities when messaging physical activity guidelines to the public. *International Journal of Environmental Research and Public Health*, 17(8), 2782. <https://doi.org/10.3390/ijerph17082782>

O’Driscoll, T. (2016). Exploring cultural variables affecting sport and physical activity behaviours of Karen Refugees in Australia: Applying a culturally specific approach to active lifestyles. [PhD Thesis, Victoria University]. [http://vuir.vu.edu.au/33040/1/O%27DRISCOLL%20Tea%20-%20Thesis\\_.nosignatures.pdf](http://vuir.vu.edu.au/33040/1/O%27DRISCOLL%20Tea%20-%20Thesis_.nosignatures.pdf)

O’Driscoll, T., Banting, L. K., Borkoles, E., Eime, R., & Polman, R. (2013). A systematic literature review of sport and physical activity participation in culturally and linguistically diverse (CALD) migrant populations. *Journal of Immigrant and Minority Health*, 16(3), 515–530.

<https://doi.org/10.1007/s10903-013-9857-x>

Palmer, C. (2009). Soccer and the politics of identity for young Muslim refugee women in South Australia. *Soccer & Society*, 10(1), 27–38. <https://doi.org/10.1080/14660970802472643> Pedersen, B.

K., & Saltin, B. (2015). Exercise as medicine - evidence for prescribing exercise as therapy in 26

different chronic diseases. *Scandinavian Journal of Medicine & Science in Sports*, 25, 1–72.

<https://doi.org/10.1111/sms.12581>

Pickett, A. C., & Cunningham, G. B. (2017). Physical activity for everybody: A model for managing weight stigma and creating body-inclusive spaces. *Quest*, 69(1), 19–36.

<https://doi.org/10.1080/00336297.2016.1145129>

Rhodes, R. E., McEwan, D., & Rebar, A. L. (2019). Theories of physical activity behaviour change: A history and synthesis of approaches. *Psychology of Sport and Exercise*, 42, 100–109. Sawrikar, P., & Muir, K. (2010). The myth of a 'fair go': Barriers to sport and recreational participation among Indian and other ethnic minority women in Australia. *Sport Management Review*, 13(4), 355–367.

<https://doi.org/10.1016/j.smr.2010.01.005>

Segar, M., Taber, J. M., Patrick, H., Thai, C. L., & Oh, A. (2017). Rethinking physical activity communication: Using focus groups to understand women's goals, values, and beliefs to improve public health. *BMC Public Health*, 17(1), 462. <https://doi.org/10.1186/s12889-017-4361-1>

Taylor, T. (2001). Cultural diversity and leisure: Experiences of women in Australia. *Loisir Et Société/Society and Leisure*, 24(2), 535–555. Thai, C. L., Taber, J. M., Oh, A., Segar, M., Blake, K., & Patrick, H. (2019). "Keep it realistic": Reactions to and recommendations for physical activity promotion messages from focus groups of women. *American Journal of Health Promotion*, 33(6), 903–911. <https://doi.org/10.1177/0890117119826870>

Thorpe, H., Ahmad, N., Marfell, A., & Richards, J. (2022). Muslim women's sporting spatialities: Navigating culture, religion and moving bodies in Aotearoa New Zealand. *Gender, Place & Culture*, 29(1), 52–79.

Walseth, K. (2006). Young Muslim women and sport: The impact of identity work. *Leisure Studies*, 25(1), 75–94. <https://doi.org/10.1080/02614360500200722> Walseth, K., & Strandbu, Å. (2014).

Young Norwegian-Pakistani women and sport: How does culture and religiosity matter? *European Physical Education Review*, 20(4), 489–507. <https://doi.org/10.1177/1356336X14534361>

Warburton, D. E., & Bredin, S. S. (2017). Health benefits of physical activity: A systematic review of current systematic reviews. *Current Opinion in Cardiology*, 32(5), 541–556.

<https://doi.org/10.1097/HCO.0000000000000437>

World Health Organisation. (2010). Global recommendations on physical activity for health.

file:///C:/Users/danie/Downloads/9789241599979\_eng%20(1).pd