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Time for themselves: Perceptions of physical activity among first and second-generation Pakistani women living in the Raval, Barcelona

Flora Lansburgh[1,2,3], Constanza Jacques-Aviñó[1,2], Mariona Pons-Vigués[4,5], Rosemary Morgan[6] and Anna Berenguera[1,2]

Abstract

Objectives: Pakistani women experience higher-than-average rates of certain chronic diseases, including diseases related to sedentary lifestyles. The aim of this study is to explore how first and second-generation Pakistani women living in the Raval, Barcelona, conceive of physical activity, and their barriers and facilitators around participating in physical activity, with the goal of increasing physical activity in this group.

Methods: Qualitative research with an intersectional approach. Nine informal interviews with key community informants were conducted from November 2018 to January 2019 to gain background on the topic, using snowball sampling. Eleven individual interviews were conducted from February to June 2019. Seven were with Pakistani women having lived, or currently living, in the neighborhood of the Raval, Barcelona. Four additional interviews were conducted with non-Pakistani women key community informants who have worked extensively with this community. Thematic content analysis was carried out using ATLAS.ti.

Results: First-generation Pakistani women generally did not have physical activity present in their daily lives, but by most accounts wished to. Areas that shed light on this included the following: limited economic opportunities and associated living conditions, barriers to social integration, health concepts and access to information, and cultural norms and related gender roles. For the first-generation, gender-related divisions of labor as well as the absence of the concept of self-care were particularly relevant barriers to their participation in physical activity. The experience of immigration-related grief emerged as a transversal theme which overlapped with multiple areas. While both generations expressed a need for the separation of genders during physical activity—as per their cultural interpretation of Islam—the lack of such spaces was highlighted as a principal barrier in physical activity among the second generation.

Conclusion: These findings shed light on distinct elements that exert influence in Pakistani women immigrants' participation in physical activity—among them: social and living conditions, access to public space, and gender-related work distribution and cultural norms—which are in turn influenced by first or second-generation immigration status. Considering the specific needs of both groups when proposing politics and health programs to encourage physical activity is paramount in order to successfully partner with these populations.

[1]Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain
[2]Universitat Autònoma de Barcelona, Barcelona, Spain
[3]Universitat Pompeu Fabra, Barcelona, Spain
[4]Servei Català de la Salut (CatSalut), Barcelona, Spain
[5]Universitat de Girona, Girona, Spain
[6]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Corresponding author:
Flora Lansburgh, Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Av. Gran Via de les Corts Catalanes 587, àtic, Barcelona 08007, Spain.
Email: floralnsbrgh@gmail.com

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Introduction

Economic immigration represents one of society's largest sources of health inequalities. Available evidence demonstrates that, compared to non-migrant populations, economic migrants experience a higher prevalence of chronic diseases such as type 2 diabetes mellitus (T2DM) and cardiovascular diseases.[1–3] Economic migrants also suffer from a higher prevalence of disease risk factors, including obesity and higher rates of sedentary lifestyles, which are strongly linked to the development of T2DM, high blood pressure, and cardiovascular disease.[4,5] Vulnerability to these chronic diseases and disease risk factors, however, differs within immigrant communities.[6,7] The health of Pakistani women immigrants, for example, is affected by an intersection of social stratifiers including, but not limited to, social class, immigrant status, gender, and age, all of which influence their ability and desire to participate in physical activity, which may help reduce some of the disease risk factors associated with a sedentary lifestyle. Pakistani women's experiences, including those of immigration, are distinct from those of their male counterparts, resulting in different levels of vulnerability to chronic disease among female Pakistani immigrants compared to male Pakistani immigrants.[8]

Pakistan is one of the world's countries with the highest emigration rates, and with historically male-dominated emigration trends.[9,10] This pattern of men establishing themselves in their host country and later bringing over their wives or families—in addition to changing trends in immigration patterns that include a greater number of women emigrating from Pakistan—has resulted in shifts in Pakistani immigrant community demographics abroad.[11]

Spain remains one of the top European destinations for Pakistani immigrants, even as immigrant populations in the country have been especially hard hit during the recession of 2012.[12–14] As a consequence of the changing immigration patterns of the last 15 years, Barcelona's population of Pakistani women has more than sextupled, up from 797 women registered in the city to 5390 women in 2018—a shift in women's representation within the Pakistani immigrant population from 8% in 2003 to 28% in 2018.[15–17] This shift in immigration patterns, paired with the passage of time, has resulted in a substantial presence of both first- and second-generation Pakistani immigrant women in Barcelona.

Studies in the United Kingdom, Norway, and the United States show health outcomes among Pakistani populations that are poorer than those of the general population, including higher risks for T2DM and obesity, particularly in women.[18–20] The higher rates of obesity in Pakistani immigrant women is related to other cardiovascular risk factors.[21] In Barcelona, gaining information about physical activity levels within the female Pakistani population (either first or second-generation) is impeded by the fact that data on immigrant populations are limited to the sole category of "developing countries." Data on Pakistani populations, specifically, are not available, nor has the available data been disaggregated by sex.[22] Factors related to this group's increased risks toward various chronic diseases related to sedentary lifestyle and participation in disease-prevention practices have not been widely studied, nor are there strong data available around prevalence of physical activity among Pakistani women in their country of origin.[23,24]

The aim of this study is to explore how first and second-generation Pakistani women living in the neighborhood of the Raval, Barcelona, conceive of health and physical activity. In light of the information above, we sought to learn more about the unique experiences of facilitators and barriers toward participation in physical activity by seeking to better understand how the intersectionality of immigrant status, gender, social class, and age (as well as other factors) lead to variations in experience. Exploring these variations between the generations was deemed necessary, given that second-generation Pakistani immigrants comprise an important part of the emerging population in Barcelona. By understanding their perspectives on and access to physical activity, tailored health promotion strategies and interventions can be created with the goal of increasing physical activity within this population, with the potential to positively affect rates of chronic diseases related to sedentary lifestyles and social determinants of health.

Methods

Design

This exploratory qualitative study used an intersectionality approach, which considers that people and their multiple identities in society are intersectional in nature, not simply additive.[25,26] In the case of immigrant health outcomes, intersectionality theory moves away from a reliance on explanations rooted in cultural elements, to include a fuller and more complicated perspective of the factors that

influence health among these collectives.[27] This approach informed our analysis in our awareness of the interdependence of the multiple social identities of both first and second-generation Pakistani women. Our understanding of the data, therefore, considered the context of, and interconnected influences exerted on, the lives of these women.[26,28] Within this approach, we employed a social-constructionism lens—a perspective which considers that social, historic, and cultural processes influence how people create their social reality.[29]

Study setting and participants

The study population consisted of first and second-generation Pakistani women (18 years of age and older) who currently live, or have lived, in the neighborhood of the Raval, Barcelona, or who have extended connections to the area, as well as key community informants who were chosen due to their extensive familiarity and involvement with this group. The Raval is among the neighborhoods in Barcelona with the least-favorable indices of socioeconomic deprivation, which studies have correlated with poorer health outcomes.[30] It was chosen due to its status as the neighborhood with the largest immigrant population in all of Barcelona, and particularly for representing the heart of the Pakistani community in the city.[31]

We considered first-generation Pakistani women to be those women who immigrated as head of households,[32] and women whose parents made the decision to immigrate—whether they themselves were born in Pakistan or Spain—to be second-generation. This category is sometimes referred to as generation 1.5.[33]

Participants were selected through purposive snowball sampling.[25,29] Recruitment was done through connections made with community associations and primary health care centers in the Raval, with members and cultural mediators themselves being interviewed, as well as referring friends and acquaintances. Non-Pakistani key informants were included because of the wider lens they offered of the context of the community in the Raval, as well as their vision of the changes within this community over time.

Data collection and generation techniques

To begin the research process, nine informal interviews with both non-Pakistani and Pakistani key community informants were conducted by the principal investigator from November 2018 to January 2019, in order for the first author to gain a better understanding of the context of Pakistani immigrant women living in the Raval. These interviews served to develop the topic guide for interviews, and did not form a part of the interviews analyzed for thematic content.

Following this, 11 individual in-depth interviews were conducted between January and June of 2019 by the principal investigator, a graduate student who self-identifies as female. Seven interviews were carried out with first and second-generation Pakistani women. Four additional interviews were conducted with non-Pakistani women who were key community informants and had worked extensively with this community. Relationships with the interviewees were established at the time of the coordination of, and course of the interviews. Coordination was done through face-to-face contact as well as through phone. The socio-demographic characteristics of the eleven participants whose interviews formed the basis of the analysis are shown in Table 1. Pseudonyms were used to protect participants' identities. Given the social-constructionism lens that we employed, various Pakistani women participants spoke both from a personal perspective, as well as from the perspective of a key informant, owing to their insight into the population of study, gained through their work in this community.

Interviews ranged from 35 to 75 min in length and followed a semi-structured topic guide informed by the informal interviews conducted previously, presented in the Interview Guide, attached. Participants were informed of the goal to glean more information around the subject of health in Pakistani women in Barcelona, and in physical activity in particular. A pilot test was not conducted, but rather specific interview questions shifted gradually across interviews as themes in discourse emerged and generally followed the structure of the guide, flowing with the conversation to cover the topics referenced, without following a strict order. Our topic guide included themes both directly and indirectly related to physical activity: concepts of health, perceptions of physical activity, explicit and implicit barriers and facilitators, the role of religion, the influence of Pakistani culture as the participant perceived it, social networks, housing, mothering, and language. The perspective of gender within these topics was maintained throughout the interviews.

Nine of the 11 interviews were carried out in Spanish, with one interview carried out in English, by request of the participant, and another in Urdu with the aid of a translator. With the exception of the interview translated from Urdu, all interviews were conducted by the principal investigator with no additional persons present. Interviews were conducted at a place of convenience determined by the participant. The number of interviews conducted was determined by reaching saturation of information, ceasing when no new remarkable themes entered the discourse.[25]

All interviews were audio-recorded in order to accurately capture the participants' responses and to ensure data quality. Interviews were transcribed by the principal investigator. Participant-identifying data were anonymized.

Data analysis and quality of data. A thematic content analysis of each interview transcription was done with the technical support of ATLAS.ti software, which was used to facilitate the organization and coding of the data, carried out with the principals of thematic content analysis.[34,35] The process for analyzing the data was the

Table 1. Participant demographics.

Participant demographics							
Name	Age range	Cultural background	First or second generation	Years in Spain	Marital status	Children	From rural area or city
	First and second-generation Pakistani women						
Aisha	25–30	Pakistan	Second	15	Married	Yes	City
Fatima	18–35	Pakistan	Second	9	Unmarried	No	Rural
Yasmin	50–53	Pakistan	First	22	Married	Yes	City
Nadeema	45–50	Pakistan	First	17	Married	Yes	City
Anousheh	30–35	Pakistan	Second	16	Married	No	Rural
Ruksana	35–40	Pakistan	First	12	Married	Yes	City
	Key community informants						
Andrea	30–35	South America	First	5		–	
Sara	45–50	South Asia	First	22		–	
Mar	65–70	Catalonia	–	–		–	
Joana	35–40	Catalonia	–	–		–	

following: interviews were transcribed verbatim; after multiple readings of the transcriptions, the researcher began to formulate pre-analytical understanding of the data; transcripts were coded by the principal researcher based on the identification of relevant texts and topics and organized by theme (broader areas that encompassed the codes) with the assistance of the ATLAS.ti software; themes were analyzed and grouped into categories based on the criterion of similarity; categories were chosen based off of their mutual exclusivity, and each category was reviewed by the team; results were discussed among research team members, with different team members independently analyzing transcripts by theme; results were triangulated between researchers until a consensus on categories was reached. Categories were emergent and inductive in nature.[35–37]

Ethical considerations and consent to participate. This study followed the tenants of the Declaration of Helsinki. Participation was voluntary, and all participants gave informed written consent. Confidentiality and data protection were guaranteed. The study was approved by the Clinical Research Ethics Committee of the Institut Universitari d'Investigació en Atenció Primària Jordi Gol(2019,19/024-P). Participants received a transportation pass worth 10€ in acknowledgment of their time.

Results

The results are classified into four categories, chosen based on the pertinence of these categories on the topic of barriers and facilitators to physical activity: economic opportunities and living conditions, social integration, health concepts and access to information, and cultural norms and gender roles. Illustrative quotations of each category are shown in Table 2.

Within the categories, some themes were loosely related to physical activity, or could be inferred, while others were directly related. The lack of the concept of self-care, physical space, and limitations of time and energy were important barriers to physical activity, while gender-specific spaces, the desire to lose weight, and education (both higher education and health education) served as facilitators.

Given the intersectional approach in the analysis, each category should also be considered to be transversal, as the implications of one are not independent of the others. Migratory grief (sorrow related to the migratory process), for example, exerted significant influence in many experiences of first-generation women, although it was placed within the context of the category of "social integration." Likewise, identities around gender and socioeconomic status were found to be transversal in the influence they exerted across categories.

Economic opportunities and living conditions

Socio-economic status played a determining role in dictating the possibility of free time, access to resources, and disposition toward participating in physical activity, as well as Pakistani women's sense of well-being. In addition, it had the direct consequence of determining women's immediate living environment and access to physical space, both public and private.

Although living in the neighborhood of the Raval offered the benefits associated with being within the heart of the Pakistani community in Barcelona, its status as a neighborhood of socio-economic deprivation was felt in its lack of agreeable public space, and/or the discomfort women felt in spending time in public spaces—often stemming from the constant presence of Pakistani men in the streets:

Table 2. Representation of categories through participants' quotations.

Representation of categories through participants' quotations	
Economic opportunities and living conditions	"They [Pakistani women] have a lot of economic difficulties, really. That affects things too. Look! You, you have a good wage, you can live relaxed. You're excited to go out. To dress well. To . . . learn things. And . . . everyone wants to improve their life. But when you fight and no opportunity comes your way, at some point, you stop trying." (Nadeema, first-generation Pakistani woman)
	"There in Pakistan families have really large houses. So the women . . . when they first arrive? They feel shut up . . . in their houses. Because here the houses are small. But bit by bit, with time, they get better. But still . . . when they are in Pakistan they feel more free, they are happier . . . because, it's because they're happy. They go to see their family, they go to see the people who . . . love them the most. The people that they miss." (Fatima, second-generation Pakistani woman)
	"If she has her kids, and has a . . . a house, a good . . . a good apartment, not the small messed-up Barcelona apartments that are 40 meters squared. Not that. If they have a nice apartment . . . and the husband has a . . . a good salary, and she's completing all of the . . . expectations of a wife, then she'd be happy, no?" (Anousheh, second-generation Pakistani woman)
	"Yea, lack of confidence and somewhere the thing, the main thing is that when you are dependent on your husband, then you have to ask money for the gym, you have to ask money for the clothes, you have to ask money for everything . . . then somewhere we cannot ask all the time for our husbands to give this, this, this to us." (Ruksana, first-generation Pakistani woman)
	"They don't have a date when they'll go visit the family, you know? And their husband, in general, have precarious jobs, and likewise, they can't say, 'Ok, relax. Every year we'll spend 3 weeks in Pakistan.' Their husbands can't tell them this, because they don't know. 'Hopefully next year. If all goes well.'" (Mar, key community informant)
Social integration	"My dad speaks Spanish, but my mom doesn't. My mom speaks Urdu, Punjabi, Sindhi, and other languages, yea. But she doesn't speak . . . English too, because she studied it up until the end of high school. And . . . other languages. But Catalan and Spanish? No. She understands, but when it comes to talking, she doesn't talk . . . because my mom had a lot of work. With us kids. Because we were six sisters and one brother . . . And of course, with all the work of that, after she's tired. And she doesn't have so much . . . it's not that after she didn't . . . before she was interested [in learning the language]." (Aisha, second-generation Pakistani woman)
	"Without this [language] we're . . . deaf. Mute. Of course, we couldn't . . . we could only communicate through . . . through drawings, no? Because the first problem, or a basic problem for Asiatic countries, is when they come here to work . . . they don't know the language. Zero. And after that, there's also zero cultural knowledge. Because it's a cultural shock." (Yasmin, first-generation Pakistani woman)
	Me, from my perspective? I don't see them [Pakistani women] as being depressed . . . at least, the older ones, I don't. The younger ones are the ones that I see as being more depressed . . . I'm not sure if it's because of the stress of being in a new place, or for fear . . . with the older ones, is like, my belief, right? They've accepted what it is, how it is, and what is going to happen." (Andrea, key community informant)
	"A lot of women that live here want to work. And in the beginning, they try hard. But when nothing comes of it, when no opportunity comes, then . . . they stop trying. And that also affects things . . . pains, or diseases, or that they no longer want to do a lot of things. No. For example, a woman . . . at first . . . I also have friends, some of them, that have done courses and they tried really hard, but they haven't found any work, and now they're a mess. They don't want to do anything, they say that here nobody helps and we can't find work, and so, why do we do it? Why do we learn? Why do we take another course if they don't give us work. Why? It's true." (Nadeema, first-generation Pakistani woman)
Health concepts and access to information	"They [the Pakisani women] told us that they felt a generalized body pain . . . eh, that we call the concept of body pain. Because it's not back pain, or chest pain, or some other pain, but more like, 'everything hurts . . .' Well, it's like an amalgamation of pains. They go to the CAP, and in the CAP normally they do tests and tell them that they don't have anything wrong with them, they give them an ibuprofen and send them home. So the women also end up frustrated because it's like . . . the pain won't go away." (Joana, key community informant)
	"They they that they'll see. When they already,for example, if a women . . . if, they tell her that if she doesn't do this thing, she'll get this disease, she says, "Well, when it happenss, then I'll see." (Anousheh, second-generation Pakistani woman)
	"Physical activity? That you finish all of your household chores. That you're not sleeping all day. No. That you are able to cook, clean, wash, whatever it be, raise children, help your kids . . . help your family. That's a physical state." (Yasmin, first-generation Pakistani woman)
	"In my country, if, if you are 60 above or 70, we are always on the bed. And all our joints . . . [she shakes her head] because we are not doing exercises in our lives. So I always learn from them that how happy they are, they are trying to make theirselves healthier, and . . . they are doing something for theirselves. It's very satisfying when you are healthy and you are not dependent on anyone. And I always notice the Spanish woman of age 70s, 80s, their bags, they take off all things, they are putting lotions on their . . . you know? They are giving time to theirselves. This is really important thing, that when you give your best time to yourself." (Ruksana, first-generation Pakistani woman)

(Continued)

Table 2. (Continued)

Representation of categories through participants' quotations	
Cultural norms and gender roles	"If they [Pakistani women] do physical activity, it would be really good. Because that way they'd forget about their problems. But to do that, they need energy. Because they use up so much energy working in the house, dropping off their kids, picking up their kids, cooking . . . And also from the stress that they have from family problems . . . so for them to have, for them to have energy, it's really hard." (Fatima, second-generation Pakistani woman) "But like I said, there are families that . . . where more or less everyone works, they help the woman out a little bit. There are . . . there are families. But you are the daughter-in-law. You have to do everything. And they [the daughter-in-laws] have to . . . they have to take care of the mother-in-law too, for example, if they have pain, they have to give them massages . . ." (Sara, key community informant) "If the kids are small it's that . . . a lot . . . a lot of kids don't eat at school. This means that the mom has a double obligation. To drop them off in the morning. At 12 they come and get them. Then at 3 they drop them off, at 4 they have to get them. It means . . . all day you're coming, going, coming, going. So, that doesn't allow much . . . many activities." (Aisha, second-generation Pakistani woman) "Physical activity is . . . they [Pakistani women] need to have time for themselves. No? For their health. This isn't . . . Pakistani women don't . . . they don't see this. They sacrifice, you know? When they're already . . . when a woman is already married and has kids, she sacrifices for her kids. And doesn't . . . she doesn't see her own health. She doesn't see anything. For her. For example, what I saw in my home, well, at my mom's home . . . I have my mom as an example. My mother doesn't see her own health. That was for her children." (Anousheh, second-generation Pakistani woman)

CAP: Centre d'Atenció Primària (primary health care center).

> Somewhere I don't feel comfortable in Raval. Because lot of Pakistani community there, and they all belongs to the rural areas. And they have the same habit if you go, if you walk here, they look like you like from foot to head, "Oh, she's a Pakistani woman, she's not wearing hijab, she's not wearing the partha . . . it must be that she's not a good woman." (Ruksana, first-generation Pakistani woman)

While this need for public space was frequently cited, so too were the positive implications of the public spaces that did exist. Plazas were highlighted as acting as facilitators toward physical activity, in addition to providing a platform for positive cultural shifts among the community:

> Because when you have a space, a well thought-out space where you can go, where you can carry out social activities, and . . . a space where you can move around, without fear, without . . . risk . . . There, you can walk or fly. Happily. (Yasmin, first-generation Pakistani woman)

The focus that was placed on public space could be partially attributed to the living conditions cited in the Raval. Both generations described the shift from a typically large house in a rural area in Pakistan to a shared apartment in the Raval, offering a stark example of the impact of physical environment in their daily lives. In the context of apartments of the Raval, physical activity was transformed from being intrinsically tied to a woman's daily routine, to becoming almost obsolete, given the size and scope of the household space available to her.

The everyday impact of living in a neighborhood where physical space was limited as a result of socioeconomic status was often reported as being a source of unhappiness and struggle. Furthermore, the insecurity as to whether (and when) first-generation Pakistani women would return to Pakistan to visit loved ones added to the sense of precariousness that was felt in their daily lives. The lived experience of such challenges was evident in the manifestation of migratory grief and the challenges of transitioning to life in Barcelona.

Social integration

Social integration (and the lack thereof) was profoundly affected by migratory grief as it related to physical activity. Spending time in one's home, for example, was often discussed in concert with various assumptions: on the one hand, women who stayed at home were considered "lazy," while, on the other hand, time spent at home was sometimes seen as being connected to migratory grief and the lack of desire to engage with the culture outside of Pakistan. This absence of connection outside of the home was often linked to feelings of isolation and sadness.

In addition, barriers presented by the non-immigrant community were also evident:

> In general, yes, they [Pakistani women] are women who are isolated. They're women who, once they are able to break their isolation, then have *another* barrier to overcome which is really difficult which is the . . . with . . . connecting with the women from here. Ohh, it's a problem. It's not that . . . nobody talks about it, but it's a wall. It's a wall. (Mar, key community informant)

Barriers to participation, including lack of work, purpose, and interaction with the wider community, were also

considered to be barriers to integration and were associated with a subsequent lack of desire to create a life outside the home:

> A lot of women that live here want to work. And in the beginning, they try hard. But when nothing comes of it, when no opportunity comes, then . . . they stop trying. And that also affects things . . . pains, or diseases, or that they no longer want to do a lot of things. (Nadeema, first-generation Pakistani woman)

Some Pakistani women never attempted to integrate, and therefore did not experience the negative aspects related to integration.

Communication was another barrier for the first generation. The desire and drive to learn Spanish or Catalan varied among first-generation immigrant women, but was often influenced by time, energy, family responsibilities, and leanings toward introversion. One participant gave the example of her mother, who spoke four languages prior to moving to Spain, but did not have the time and energy to learn Spanish amid the task of caring for six young children.

Because second-generation women entered into the school system as youth, they were exposed to Spanish and Catalan, and typically grew to be fluent in one or both languages. This, however, did not preclude negative experiences in the process:

> They [schoolmates] thought they were better than me. Because they knew the language, and they didn't get along with me. But bit by bit, once I . . . once I started learning the language, I knew how to respond to them, you know? . . . And now they've become my best friends. (Fatima, second-generation Pakistani woman)

Among the second-generation Pakistani women, enrollment in, and completion of, primary and secondary school was common. These girls were raised with the expectation that they would enter the workforce, as well as comply with cultural and familial values, and especially those related to the religion of Islam. The need to wear the hijab at work was frequently cited by this group as a condition of their participation in the labor force, and the act of working was not perceived as competing with the desire to have children, and/or a trajectory that included motherhood.

Integration into the wider community acted as a facilitator toward physical activity, as clearly evidenced by the second generation, who participated in gym classes as a part of their general schooling and regarded physical activity as a normal—and desired—part of a healthy lifestyle. Their participation in physical activity changed somewhat as they became adolescents, due to the cultural need for the separation of genders during physical activity. A modification that satisfied this need was a cricket league that was created for Pakistani girls. Its success was largely due to the cultural norms that were taken into account:

> The teams are not mixed. Because they didn't want that. So the trainer is also a girl, like, it's a space where they make sure that boys don't go to watch and make comments while the girls are training . . . it's an intentional space. Not mixed. For the girls. And so it's working really well for them. (Joana, key community informant)

Health concepts and access to information

Concepts of health and lived experiences of disease were often presented through somatization: the communication and interpretation of psychological distress through the presentation of physical symptoms. The medical attention sought at primary care centers for health concerns treated ailments such as back and muscle pain—possibly associated with somatization—through anti-inflammatories and muscle relaxers, and by many accounts, ineffectively. There appeared to be a distinct unmet need for other ways of addressing these concerns:

> Muscle pain. Muscle. You know? Back pain. It's from the stress. They [Pakistani women] always have something, no? From thinking. Your muscles hurt from thinking so much. (Anousheh, second-generation Pakistani woman)

Both key informants, as well as women from the Pakistani community, talked about the utility of programs designed to address such health issues. The integration of physical activity into these programs was frequently noted as fulfilling an otherwise unmet need. Many women wished to have physical activity programs that included physical therapy to address ongoing health issues. While the primary health care center served some of the health needs of the population by being an accessible and well-regarded health care service, it did not adequately match the education levels, cultural needs, and language barriers of the women seeking care. Cultural and language mediators were seen by both Pakistani women and key community informants as being indispensable, although not always available:

> Often when they go to the primary health care center, there's not much time. And on top of that they [Pakistani women] don't . . . they have difficulty with the language. They can't explain well. (Aisha, second-generation Pakistani woman)

Prevention, like health-promotion, was a concept that was aided by access to education. For first-generation Pakistani women, this often took the form of health-education, while for second-generation Pakistani women, health promotion was often integrated into their schooling. According to many accounts, in the absence of bodily pain, steps were seldom taken to prevent disease. Access to

health information acted as a catalyst to shift women's daily activities to include elements of physical activity, or to begin considering its importance:

> They [Pakistani women] are extremely sedentary. Extremely sedentary. Sedentary, like . . . culturally everything that is related to physical activity, as a fundamental aspect of health? It's not understood. They have not integrated it. (Mar, key community informant)

Participants differed on their perspective as to whether Pakistani women *wanted* to engage in physical activity. Almost unanimous, however, was the idea that it would be good for them to do more of it, both for their physical health, in addition to being a way to manage stress.

Arguably the strongest motivator for Pakistani women in participating in physical activity was to lose weight, although the arrival of a disease such as diabetes could also serve as motivation:

> So every day, or in the morning, I would leave with my mom at six in the morning to go walking. Me and my mom. Yes, yes, yes. "Got to lose weight, got to lose weight." (Aisha, second-generation Pakistani woman)

There was a polarization in the discourse surrounding an individual's motivation to exercise, with many accounts both from and about Pakistani women affirming that physical activity was desired. Contrasting with this, discussions around the theme of "laziness" also surfaced, with Pakistani women voicing that many Pakistani women simply didn't like participating in physical activity.

Access to information—be it in the form of formal education (schooling), language or cultural classes, family regrouping information sessions hosted by the Catalan government, or workshops put on by local community organizations—acted as instigators for changes in behavior. Knowledge acquired about health-related topics was highlighted as promoting these changes. Among first-generation Pakistani women, the principal demand for health information was related to providing good nutrition for their children, and gaining a greater understanding around the female reproductive system.

Second-generation Pakistani women clearly did not have the same needs around access to information as their mothers, due to the nature of their multicultural identities and enrollment in the Catalan school-system. They typically pursued higher-education and had concepts around health that included preventive principals. Culturally, however, they maintained many of the same values as their parents' generation.

Cultural norms and gender roles

The role of motherhood was hugely important, and the desire to become a mother was a point of agreement among participants on both a personal and cultural level, transcending intergenerational differences. Self-sacrifice for the sake of one's children was a notion that was largely embraced and accepted as a condition of motherhood. Meanwhile, there was also an awareness that the concept of "time for oneself" was lacking among mothers, and that its absence in women's lives was detrimental.

Time for themselves, and the concept of self-care, was described as something that women seemed to want to incorporate into their lives, even as this shift was sometimes acknowledged as being at odds with the self-sacrifice that was required and expected—internally and externally—of mothers. The lack of physical activity in the lives of most first-generation Pakistani women could, in many ways, be seen as a direct consequence of the absence of the integration of self-care:

> It's customs as well, or what they've seen. That no family members, no other women do it [take time for themselves]. The grandmothers don't do it, the mothers, the aunts. I don't know, I think it's a bit like this. (Sara, key community informant)

Participants agreed that culturally, participating in physical activity would not be poorly viewed, so long as there was separation between genders, as per their interpretation of Islam. In practice, however, such involvement was also contingent on continuing to follow the cultural norms—including gender norms—in order to be deemed acceptable. In response to the question of whether there was a conflict in integrating time for oneself into their culture, one participant responded:

> Yeah, of course! Of course. First, I was the best daughter-in-law in the family and now I am the worst daughter-in-law! (Ruksana, first-generation Pakistani woman)

Time and energy were cited as obstacles to physical activity by both first and second-generations, even as the second generation had integrated the concept of time for oneself. In the first generation, the principal influencing factors were responsibilities of child-rearing and household duties—cultural expectations that were felt by Pakistani women, and which they wished to complete. In the second generation, such limitations often came from schooling or work, with some women also highlighting gender-related expectations such as child-rearing and household duties:

> A woman has a big responsibility, you know? To have kids, then educate them, then to . . . well, be at home, be a housewife, be the queen of the house, no? . . . She has to do everything. And the husband has to . . . how do you say . . . he has to work for their family. (Anousheh, second-generation Pakistani woman)

This cultural delineation of gender roles was acutely felt even among the second generation, although Pakistani women of both generations who were in the workforce sometimes described sharing household duties with their husbands.

Cultural and community expectations heavily affected the first generation, including when it came to raising their own children. These expectations were evidenced by the pride expressed by parents when children did well, perhaps related in part to the sacrifice of the mother. Gossip from within the community was regarded as being a trait of the culture, and served as a motivator for parents to maintain a tight grip on their children's social life. The second generation talked about the importance of developing trust within the family which, once established, allowed children to participate more fully with their school-mates:

> The first thing that we Pakistanis think is, "What will people say?" If we do something good, or bad, we don't think about if we're going to feel . . . the second generation does . . . But the first generation always thinks, "What will people think?" (Fatima, second-generation Pakistani woman)

Change was often considered conflictive, especially when it was an adaptation of Western values. The second generation's position of being culturally Pakistani at home, but raised in the multi-cultural environment of the Raval, was cited as both inevitable as well as feared. While education was heralded, loss of Pakistani family and cultural values was assumed to go hand-in-hand with exposure to Western cultures.

Outside perspectives and attempts to guide behavior changes were met with mixed responses. While health concepts that were gained through increased education were viewed positively, elements that conflicted with Pakistani cultural values were sometimes met with offense.

Discussion

Experiences related to physical activity differed between first and second-generation Pakistani women. In general, first-generation Pakistani women did not appear to have physical activity in their daily lives, although it was desired, especially in the context of weight-loss. The barriers around physical activity appeared to be particularly impactful on the first-generation women interviewed. The topic of gender norms entered into the discourse frequently, heavily influenced by the participant's generational status. Key potential barriers toward physical activity were gender-related family and household duties. Cultural norms dictating a separation of genders during physical activity was an important consideration among both generations. Culturally appropriate spaces in which to participate in physical activity served as facilitators, while the absence of such space (chiefly due to socio-economic conditions) was a barrier. Migratory grief among first-generation Pakistani women emerged as a transversal theme, clearly affecting additional areas related to health and behavior, such as participation in the wider community, rendering it nearly impossible to completely separate challenges related to the immigration process with barriers toward physical activity.

As in results from a systematic review carried out on intergenerational differences of physical activity in UK South Asians, our results highlighted the variations in facilitators and barriers between first and second-generation immigrants, as well as differences in the amount of engagement in physical activity between the two groups.[38] Our findings were also consistent with studies finding that cultural norms strongly influenced women's participation in physical activity.[39,40] We were likewise aligned with studies which found that higher education and access to health education served as catalysts in shifting the younger generation's perceptions of gender norms.[41] In addition, our findings reflected the well-researched role of neighborhood and housing in health inequalities,[42,43] and offered insight into some of the specific ways in which housing and neighborhood factors can facilitate or hinder participation in physical activity.

Although we found that social integration played a role in participation in physical activity, we did not make a direct link to physical activity serving as a facilitator to social integration, as has been cited in other studies.[44] A study on physical activity in immigrant children in Spain found that parental attitudes were highly influential in a child's participation.[45] While our findings did not identify a strong link between parental attitudes and physical activity in the second generation, we did find that cultural values were highly influential in determining the acceptability of the environment in which physical activity was carried out.

Other studies on identity in Pakistani immigrant women have found that understanding ties to their country of origin was paramount to beginning to understand the experiences of women and their host country. In particular, the cultural emphasis on maintaining certain gender norms was emphasized, as was the importance of motherhood.[46,47] Such lines of thought reassert the need to better understand factors related to integration—including cultural norms—before being able to comprehend health patterns. Public participation could be one strategy by which to elicit more information around the needs of this specific population.[48]

These similarities in findings between other studies and our own suggest that there are themes that are relevant internationally when considering the experience of physical activity among immigrant populations. While such shared content is valuable, we find that the intersectionality approach of our study explores a unique understanding of the context of physical activity specifically among first

and second-generation Pakistani women in the Raval, Barcelona, with themes that may uniquely affect and influence the health needs of this particular population. While similarities may exist, generalizing about other populations based on these themes may not be possible.

While the nature of migratory grief was transversal in the experiences of first-generation Pakistani women, the extent of its influence over their participation in physical activity is far from clear. A better understanding of migratory grief and its phases, as described in Joseba Achotegui's article on immigration and mental health, may offer further insight into how to tailor health interventions to be most effective.[49] The possibility that participating in physical activity might, in turn, have an effect on migratory grief, highlights the need to prioritize activities that address the full individual, and the multiple identities that influence the lives of both first and second-generation Pakistani women in Barcelona.

Recommendations

In this study, social integration surfaced as a potential facilitator toward promoting physical activity among the first generation. Providing resources and activities for Pakistani women that take into account the barriers of time and energy, as well as schedule restrictions, would be appropriate considerations for any new programs. We suggest that government policies be designed to increase the availability of culturally relevant community services, including ones which address barriers toward the integration of immigrant communities within Barcelona (and vice versa). Given that medical care and primary health care centers were cited as serving as an important community resource, supporting increased access to cultural mediators is fundamental to the health of Pakistani women in Barcelona.

Social determinants—particularly economic resources and the built environment—were cited repeatedly as being influential factors in access to physical activity. Prioritizing the development of green space and playgrounds around the Raval, with an explicit aim to facilitate culturally appropriate gathering areas, has the potential to positively influence the day-to-day lives of both first and second-generation Pakistani women by providing access to physical activity.

Taking into consideration relevant cultural norms, gender roles, and socio-economic conditions within this community when proposing health interventions—especially those related to physical activity—is paramount. Second-generation Pakistani women, while being raised within the geographical and multicultural realm of Barcelona, also need interventions that are designed with their specific societal and cultural context in mind. This study suggests that public participation could be a strategy which would increase the social impacts of interventions within this group by tailoring interventions to meet participants' needs.

An important area of further exploration is the voices of men in this community. The gender roles and expectations that affect the daily lives, routines, and health of women in the Pakistani community exert their own influence on the responsibilities attributed to men. Given the hierarchical nature of the culture, men would be important partners for engagement when trying to address risk factors for women. Finally, this topic of study could benefit from future research on barriers to integration in Barcelona including considerations around how to promote economic opportunities within this collective. Such research could also potentially shed light on experiences of other Indo-Asian communities in this city as well as in other cities and countries with Indo-Asian immigrant communities, and obstacles to their integration.

Limitations

All but one participant was fluent in Spanish or English, due to difficulty reaching Urdu-only speaking Pakistani women, whose barriers and facilitators toward physical activity may be distinct. Likewise, all participants of the study had legal status in Spain; it is reasonable to infer that women in irregular legal standing face additional barriers in participating in physical activity.

The different age ranges of first and second-generation Pakistani women may have resulted in a less direct comparison between factors influencing participation in physical activity. Similarly, all but two of the participants were mothers, and only one was unmarried. Perspectives of single or childless Pakistani women would offer a more complete vision of the barriers and limitations toward physical activity in this community. In addition, it is plausible that at different ages, distinct barriers and facilitators are present, criteria that were not considered within the scope of this study.

Finally, we conducted interviews with both Pakistani and non-Pakistani women. We chose to do this because we sought to glean a perspective on the Pakistani community from members of the wider community who had years of experience working with the Pakistani women population. While this perspective is indeed valuable, its contribution means that our results are not strictly from the Pakistani women immigrant community alone, a consideration which must be taken into account when seeking to speak about perspectives from within the community.

Conclusion

This study provides insight into factors that influence Pakistani women's concepts of health and attitudes toward physical activity, with the intersectional nature of their experiences clearly informing their participation in physical

activity in complex ways. Facilitators and barriers related to social integration, socioeconomic limitations, and access to education all play important roles, as do the oft-cited experiences of migratory grief in the first generation. Perceptions of gender norms and subsequent cultural expectations appear to weigh heavily on the first generation, while some shifts in this area are evident among second-generation Pakistani women, especially in their views on exercise and making time for themselves.

Taking into consideration the unique set of factors influencing Pakistani women of both first and second generations around the barriers and facilitators they experience in participating in physical activity is key in order to design and implement successful interventions or health-promotion strategies among these groups. We encourage those who are in positions of implementing programs targeting this population to not only review themes from this research and other relevant research to help inform their approach, but also to engage with the population directly, and solicit their participation in developing and informing the programs being implemented.

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Author contribution(s)

Flora Lansburgh: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Project administration; Software; Writing – original draft; Writing – review & editing.
Constanza Jacques-Aviñó: Conceptualization; Data curation; Formal analysis; Methodology; Validation; Writing – review & editing.
Mariona Pons-Vigués: Conceptualization; Data curation; Methodology; Validation; Writing – review & editing.
Rosemary Morgan: Data curation; Methodology; Validation; Writing – review & editing.
Anna Berenguera: Conceptualization; Data curation; Formal analysis; Methodology; Supervision; Validation; Writing – review & editing.

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ORCID iDs

Flora Lansburgh https://orcid.org/0000-0001-8609-9694
Constanza Jacques-Aviñó https://orcid.org/0000-0001-8506-780X
Mariona Pons-Vigués https://orcid.org/0000-0002-7929-3701
Rosemary Morgan https://orcid.org/0000-0001-5009-8470

Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available. They could be made available from the corresponding author on reasonable request.

Supplemental material

Supplemental material for this article is available online.

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