

Saudi Women Constraints for Participation in Sports and Physical Activities

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Abstract: Saudi women have recently witnessed unprecedented sociocultural changes in lifestyle and prosperity, as a result of recent female empowerment policies. Among these changes is the public acceptance of female participation in sport and physical activities. However, due to lack of good opportunities for sport and physical activity participation in previous years, Saudi women might still encounter tremendous factors that prevent or limit their participation. The study purpose was to investigate constraints that limit or prohibit Saudi women from participation in light of the recent empowerment policies. A specially designed questionnaire for this study was developed based on the context of leisure constraint theory and was randomly distributed in all regions of the country, yielding a sample of 866 female participants. The results indicated that the majority used their homes as the place for participation, with significant differences among geographical location in intrapersonal and interpersonal constraints, and an overall high score in structural constraints. It was concluded that Saudi females' ability to participate in sports and physical activities is severely constrained by too many factors that need to be alleviated by policy-makers and investors.

Keywords: Constraints; Participation; Physical activity; Sport; Women empowerment.

1 Introduction

Being physically active is known to be one of the most beneficial human behaviors for personal health, thus, as Edwards and Sackett stated [1], "it is imperative that interventions and programs designed to increase physical activity among females take into account the gender-specific psychosocial factors and conditions that may influence a woman's decision to become and remain active" (P. 53). In the Middle East, especially in the Gulf countries, there has been an increasing interest in female athleticism, simultaneous with the rise in women's athletic participation in the region, therefore, understanding micro-level factors that inhibit and/or limit female sports participation allows for the exploration of larger social issues in the Gulf region [2].

Saudi Arabia, as a developing country lead by inspired and young generation, has issued new rules and regulations aimed to empower Saudi women for participation in sports and physical activities, as part of national initiative for quality of life. Amongst these efforts, the inclusion of physical education in girls' school's curriculum, the creation of sport sciences colleges and/or departments in many Saudi Universities, and the unprecedented supports and opportunities provided for them by the ministry of sport and the local Olympic committee along with the national sports federations. However, due to lack of good opportunities for participation in sports and physical activities (S&PA) during previous years (prior to 2017, where the Saudi society was considered to be extremely conservative toward women S&PA), Saudi women might still encounter many constraints and/or barriers that prevent or limit their participation in S&PA. In fact, the Ministry of Education has launched several programs aimed to prepare female PE teachers.

Corresponding to the women empowerment initiative, as part of Saudi Arabia's 2030 vision, this study aims to explore the constraints that prevent or limit participation in sport and physical activities among Saudi women. A special note that should be taken into consideration regarding this study is the uniqueness of its subjects. Saudi women, prior to 2017, were not exposed to physical education classes, as part of general school's curriculum, nor did they have the accessibility for participation in sports and physical activities due to lack of female sports infrastructure (with the exception of some walking trails). This status quo ante might have a substantial effect on Saudi women's perception of constraints to participation in S&PA, it is expected that they might be inferior to their counterpart western women in their sport knowledge and skills. Hence, the first participation of Saudi women in an international event was at the Olympic Games in London, 2012.

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According to the Saudi Arabian General Authority for Statistics (GASTAT), in their 2017 survey report of family sport participation, they interviewed 33350 families pooled randomly from residents in all 13 administrative regions and found that among the 15 years of age or older, only 14.89% were participating in sports (for ≥ 150 minutes per week), from those participant's Saudi women accounted for 7.30%.

The empowerment of Saudi Women is well justified, and very welcomed too by many. Saudi women considered, worldwide, to be among the most overweight and/or obese and the least active [3]. Therefore, constraints to participation in sports and physical activities must be determined and eliminated to promote active living, especially among females who have limited opportunities to engage in PA, and access to use sport facilities [4].

According to the Saudi General Authority for Statistics (2017), Saudi women main reasons for nonparticipation in sports were no interest, no time, and no facilities. However, the literature about women's constraints to participation in sports and physical activities is informative of more than the aforementioned constraints. Some studies of Muslim women have shown Sports outfits to be one of the major issues constraining participation in sports events, such as the Olympics, for women from Islamic countries [5].

Elements constraining women, from participating in S&PA, surpass their male counterpart [6]. For instance, scientific research has shown that women's view and believe of their body and appearance pose a constraint to participation [7]. This matter is more constraining for Muslim women, though it depends on personal belief and affiliation with religion and culture, most of them are particular about their modesty and integrity, along with issues related to sports outfits [8]. Constraints to participation in recreational sports and physical activities were investigated vigorously in the literature. Most, if not all, studies have categorized constraints into personal, social, and environmental constraints, in congruent with the theory of constraints, as presented by Crawford, Jackson, and Godbey [9]. (The theory of constraints presented in a hierarchical model, in which the focus was on three aspects of constraints, Interpersonal, Intrapersonal and structural constraints. Thus, the theory of constraints was adopted, as a theoretical base, for this study.

According to the theory, the aspects of Intrapersonal constraints involve psychological states and attributes that interact with personal preferences. While the Interpersonal constraints encompass individual's, characteristics related to social interaction and relationships. Structural constraints refer to the factors that intervene between individual preference for participation and the actual participation.

The aim of this study was to investigate constraints and/or barriers that prevent or limit Saudi women from participation in sports and physical activities, in light of the official and unlimited empowerment and official supports. Saudi female sport and physical activity is considered to be a new subject that warrant considerable attention. Participation in these activities was not publicly accepted, nor was it taught in female schools until recently. Therefore, the official government support, for Saudi female sport and physical activity participation, may not be efficient due to lack of skills, facilities, clubs, and furthermore, the culturally shaped attitudes toward S&PA and perceptions of constraints. Thus, investigating constraints that limit or prohibit Saudi female from participation is important at this stage of social and cultural development, such results should lead to better understanding of the constraining factors and assist providers and practitioners on their decisions to facilitate Saudi female's participation in S&PA.

2 Methodologies

To collect the needed information from residents of the country's major geographical regions, a cross-sectional survey research approach was utilized for this study.

2.1. Data Collection

A 23-item questionnaire was developed by the researchers, based on the theory of Leisure Constraints Hierarchy. Accordingly, the questionnaire consisted of three domains, intrapersonal constraints, interpersonal constraints, and structural constraints, which were represented by 8, 8 and 7 statements respectively, using a five-point Likert-scale format. The instrument was face validated by a panel of experts and was tested for reliability as shown in table (1). The study participants were residing in major cities that represent all regions of the country and were approached at selected shopping malls during randomly selected days of the week (Thursdays and Saturdays). Unfortunately, the data collection process was interrupted by the out-break of Covid19 and the lockdown regulations. However, the collected data was deemed sufficient for the purpose of the study.

Table 1: Reliability of the constraints instrument

Instrument	No. of items	Mean	Std. Deviation	Alpha Cronbach
Intrapersonal	8	19.9307	6.21260	.787

Interpersonal	8	22.0208	7.27063	.845
Structure	7	23.8187	6.22864	.812
All Items	23	65.7702	16.42708	.900

2.2. Ethical Clearance

Ethical approval for this study was obtained from the Human and Social Research Ethics, a subcommittee of the Standing Committee for Scientific Research Ethics, at King Saud University, Ref. No: KSU-HE-20-626.

2.3. Study Sample

A convenience sampling technique was utilized for this study, where respondents were approached at selected shopping malls in two major cities of each region, during two randomly selected days of the week (Thursdays and Saturdays). The technique was deemed suitable for the topic at this stage, since shopping malls were considered to be the best places that attract Saudi females, from different backgrounds, and most appropriate to collect data. A quota sampling size was taken into consideration as a result of the different population density between the central region (Riyadh) and the rest of other regions. Thus, in the central region a total of 400 questionnaires were distributed, and 200 for each of the other regions.

Using Cohen statistical equation [10], a total of 866 Saudi female participated in the study, ranging in age from 17 to 55 years old, with a mean of (23.56 ± 6.437) and residing in different parts of the country, the majority of the subjects were in their early twenties (53.6% between 20 to 24 years old). The highest number of participants were from the central part (45.7%), which considered to be normal given the population density in that region (Riyadh, the capital city, with a population over five million), and the lowest number of participants were from the eastern province (6.5%), due to the Corona virus (COVID 19) where the first cases in the country were reported and followed immediately with the implementation of quarantine, which was imposed in that region way before the rest of the country. Table (2) depicts the study sample distribution based on geographical division and major cities, along with the Status-quo of subjects' participation in S&PA.

Table 2: Distribution of the study sample according to geographical distribution.

Region	City	N	%	participation		Participation Place*		Interest	
				Yes	No	Inside	outside	Yes	No
Central	Riyadh	225	45.7	284	112	184	100	316	80
	Kharj	171		71.8%	28.3%	46.5%	25.3%	79.8%	20.2%
Eastern	Dammam	34	6.5	33	23	20	13	50	6
	Khobar	22		58.9%	41.1%	35.7%	23.2%	89.3%	10.7%
Northern	Tabuk	98	19.9	130	42	94	36	149	23
	Duba	74		75.6%	24.4%	54.7%	20.9%	86.6%	13.4%
Western	Mecca	56	12.2	77	29	57	20	85	21
	Jeddah	50		72.7%	27.4%	53.8%	18.9%	80.2%	19.8%
Southern	Jazan	67	15.7	103	33	84	19	114	22
	Abha	69		75.7%	24.3%	61.8%	14.0%	83.8%	16.2%
All		866	100	627	239	439	188	714	152
				72.4%	27.6%	50.7%	21.7%	82.4%	17.6%

2.4. Analysis

Beyond the descriptive analysis of the study respondents, perceived constraints to participation in sport and physical activities (S&PA) among Saudi females, was examined by a series of one-way analysis of variance (ANOVA) tests, followed by LSD post-hoc analysis, to assess whether regional differences exist on Saudi female's perception of constraints to participation in S&PA. Each domain of the constraints instrument (intrapersonal, interpersonal, and structural constraints) was analyzed separately, followed by analysis of the overall constraints.

3 Results

Regardless of type of activities or rate of participation, subjects who participated in S&PA were asked about the site they use for participation, inside or outside the home. The overwhelming majority participate in S&PA inside their homes (50.7%), which can be looked at as supporting evidence for the need and significance of this study and future constraints studies. The percentage of southern females who participated in S&PA outside their home was alarmingly very low (14%), weather that reflect culture or infrastructure constraints remain to be looked at in the bases of the three constraints theory domains.

ANOVA tests for comparisons of perceived constraints among Saudi females; based on geographical location; have shown significant differences; in the overall constraints and in the first two domains (intrapersonal and interpersonal constraints); as presented in table (3). The differences between participants' geographical location were not statistically significant in the domain of structural constraints.

Table 3: ANOVA results for types of constraints by subjects' geographical location.

Constraints	Mean and (Std. Deviation)					F	Sig.
	Central	East	North	West	South		
Intrapersonal	2.400 (.726)	2.535 (.712)	2.574 (.838)	2.489 (.823)	2.634 (.810)	3.067	.016
Interpersonal	2.691 (.871)	2.841 (.887)	2.796 (.978)	2.625 (.879)	2.938 (.933)	2.649	.032
Structural	3.325 (.841)	3.643 (.714)	3.383 (1.01)	3.494 (.894)	3.482 (.894)	2.362	.052
All Constraints	2.805 (.669)	3.006 (.593)	2.918 (.799)	2.869 (.718)	3.018 (.746)	2.940	.020

The two domains that showed significant statistical differences, based on residential areas of the country, were examined further by LSD post-hoc test, to determine the differences. The comparisons result of the intrapersonal domain are presented in table (2), and it shows a significant mean difference between participants who live in the central part of the country (2.400) compared to their counterpart who live in the north (2.574) and the south (2.634). This finding indicates a high perception of intrapersonal constraints among females residing in the northern and southern part of the country, when compared to those residing in the central part.

As for the interpersonal domain, the result of the LSD test presented in table (2), and it shows significant mean differences in favors of those residing in the central (2.691) and the west (2.625) parts of the country compared to residents of the south region (2.938). This result indicates that females residing in the southern part of the country perceived interpersonal constraints higher than females residing in the center or the west part of the country.

4 Discussions

From the descriptive information, regarding Saudi females' participation in sports and physical activities, it is clear that there was a fairly good rate of participation and a high level of interest, however, past participation took place mostly inside the homes. This finding might be attributed to lack of females S&PA facilities and possibly, to less extent, religion and culture adherence, along with lack of physical education classes during general schooling years. Al Ohali [11] investigated the attitudes and constraints of Saudi female university students towards participation in sports for all and expressed the need for increasing female sports clubs and decreasing membership fees. Furthermore, in a qualitative case study of Muslim women in the UK, Miles and Benn findings emphasized the influence of PE and the school environment, where the majority of Muslim women's physical activities took place and found that participation in PA decreased during their study in higher education, as the adherence to religious and cultural expectation increased. Even though, some studies have found that Islam does not have any conflict with female sports participation [12]. The large number of Saudi females participating in PA at home could be an influence of some sociocultural factors. Scientifically, it has been found in the literature that lack of culturally appropriate facilities was a major barrier affecting women participation in S&PA, especially in activities such as swimming and exercising [13]. Furthermore, a study conducted in 2015 in two cities, Dammam and Al Jouf, representing the eastern and northern regions of Saudi Arabia, found that 70% and 82%, respectively, held that women should only participate in sport privately, as an emphasis on sex segregation [14].

The results of the study indicated some significant differences in Saudi females' perception of two domains of constraints, based on regional areas of the country. Clear differences were apparent on the Intrapersonal constraints (first domain) between females residing in the central region compared to their counterpart residing in the south and north regions, indicating a low perception level of intrapersonal constraints for female residents of the central part. This finding could be attributed to personal attitudes, beliefs and cultural norms related to Saudi female participation in S&PA. Attitude towards sports has a central role in terms of participation and engagement in various sports-related activities [15]. It may also suggest a latent cultural effect on female perception of sport and physical activities participation in some parts of the country, especially in more conservative areas such as the southern and northern regions of Saudi Arabia [16].

The second domain with significant differences was the Interpersonal constraints, as the results have indicated that females residing in the south region seem to perceive interpersonal constraints more than females from the central and the west part. which support the notion of profound cultural stressors and impacts, as a constraining factor to female participation in S&PA. The central part is represented mainly by the capital city of Riyadh, while the western region is represented by the country's second largest city of Jeddah. These two congested cities are known to be culturally open

(host and interact with people of different cultural backgrounds), and that might have contributed to the low perception of interpersonal constraints. These findings are in congruent with previous research findings, which emphasized that women living in rural areas were less active physically and face more barriers to physical activity compared to their urban counterparts [17].

Although the structural constraints differences did not reach a level of statistical significance, still it was considered to be an important finding of this study. A closer look at the mean scores of the structural domain indicates a high perception level of structural constraints among Saudi females. This finding applied to participant's perceptions from each region of the country (see table 1), their mean scores of structural constraints were higher than their mean on the intrapersonal and interpersonal constraints. It is not surprising that Saudi females perceived this level of structural constraints, the absenteeism of opportunities to participate in sport and physical activities is overwhelming, due to lack of females' sports infrastructure. Saudi females have limited access to exercising facilities and limited opportunities to participate in S&PA. Even though privately-operated female sport and exercise facilities are spreading fast, especially in major cities, still the cost of membership is considered by many as very high, limiting their accessibility. Previous research on Saudi females. Results of several studies has found the high cost of female club membership as one of the most constraining factors for Saudi female to participate in S&PA [18]. This assertion is also consistent with findings among students at health colleges, at a university located in the south-western region of Saudi Arabia, in which they reported lack of accessible, suitable and safe sports places and their high cost as significant environmental barriers [19]. To verify the aforementioned finding, of the burden cost of private female clubs, among this study sample, items-based analysis of the structural domain revealed strong evidence. The statement "cost of private sports centers' membership is very high" received the highest score of (4.1259) mean and (1.2104) standard deviation, confirming the prevalence of this constraining factor.

5 Conclusions

Taking all results of the current study together, it is obvious that Saudi females' ability to participate in sports and physical activities is severely constrained by too many factors. Thus, a systematic approach is required to assist in overcoming personal, sociocultural, and structural constraints. In this study, Saudi female residing in rural areas perceived higher level of intrapersonal and interpersonal constraints to participation in S&PA, in comparison with metropolitan residents, which might be due in large part to the sociocultural influences. On the other hand, the structural domain was highly perceived by all females regardless of region, and the cost of private fitness clubs was the most constraining item.

Lack of physical education classes and sports facilities, in public and private girls' schools, have a major impact on Saudi females' awareness and ability to indulge in any type of sports and/or any form of physical activities. S&PA participation requires a variety of necessary skills that should be acquired at an early stage of life, as part of the general physical education curriculum and community recreational services.

It should be emphasized that Saudi women's empowerment to participate in sports and physical activities is recently initiated, and it is expected to take some time to materialize and mature. However, public and private efforts, in this regard, are speeding up the process of offering opportunities for female participation in S&PA.

6 Recommendations

It should be emphasized that Saudi women's empowerment to participate in sports and physical activities is recently initiated, and it is expected to take some time to materialize and mature. However, authors recommended that, public and private efforts in this regard, should speeding up the process of offering opportunities for female participation in S&PA.

Conflicts of Interest Statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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