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Iranian Women's Perceptions and Experiences of Barriers to and Facilitators of Physical Activity

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Abstract

Background and Objectives: The purpose of this study was to explain Iranian women's perceptions and experiences about barriers to and facilitators of physical activity (PA).
Methods: In this study, two focus group discussions and six personal interviews with women were performed. They were selected using the purposive sampling method. Data was collected using semi-structured interviews and until data saturation was reached. Next, a directed content analysis method was used for data analysis.
Results: Three main subthemes and 12 categories were developed as follow: 'intrapersonal factors', 'interpersonal factors', and 'environmental factors associated with sports environment'.
Conclusions: The women cited numerous barriers to PA. They mostly believed that women did not set health as a priority in their life plan due to their multiple responsibilities and high levels of responsibility. They also acknowledged that each person should plan for PA despite all available barriers.

Keywords: Physical Activity, Barriers, Facilitators, Women, Focus Group Discussion, Content Analysis

1. Background

High-risk health behaviors may create a risky lifestyle. Inadequate physical activity (PA) is a major risk factor that increases morbidity and mortality across the globe (1).

A minimum amount of PA is recommended by the centers for disease control and prevention (CDC) in the USA for adults aged 18 - 65 years. Accordingly, it is described as participation in aerobic PA with a moderate intensity for at least 30 minutes and 5 days a week or with a high intensity for at least 20 minutes and 3 days a week (2).

Dumith et al., reported that about 23.7% of women and 18.9% of men had insufficient PA (3). Given the limitations of studies on PA among women, the real prevalence of inadequate PA across the globe is much more than the estimation reported by Dumith et al. (4). According to the results of a study conducted in Iran (2011), the favorable amount of PA among women and men living in 22 districts of Tehran were 20.5% and 24.3%, respectively.

According to the report of the CDC (2008), regular PA can reduce the risks of premature death, cardiovascular diseases, high blood pressure, stroke, type 2 diabetes, hyperlipidemia, metabolic syndrome, colon cancer, breast cancer, and depression. It can also improve the cognitive function among older adults (2).

In spite of the health benefits of PA and recommendations provided by international organizations, a significant percentage of individuals around the world take inadequate PA. Also, women are less likely to perform the minimum amount of PA (5). Barriers to PA from women's perspectives are child responsibilities, role-ambiguity and role conflict, security concerns, lack of confidence, and insufficient knowledge about how to plan for PA, financial issues and time constraints (2). Other factors affecting PA are womanhood, traditional culture, and dominant policies within the society, weather conditions, women's dressing and makeup, personal motivation for doing PA (6), religious beliefs and obligations, and the socio-economic status (7).

Various factors influence insufficient PA in women given socio-cultural and religious context of the society. Also, women and girls constitute more than half of the population in each country. Therefore, it is necessary to evaluate barriers to and facilitators of PA from women's perceptions in each culture and context. Cross-sectional

studies are the most common designs for the investigation of barriers to and facilitators of PA, especially when the cause-and-effect studies are impossible. Moreover, since available studies in Iran have addressed this phenomenon using a quantitative method, this study adopted a qualitative approach with the aim of exploring the Iranian women's perceptions and experiences of barriers to and facilitators of PA.

2. Methods

2.1. Design

This was a qualitative study. Qualitative research approaches aim to illustrate and interpret real world phenomena in terms of meanings given by individuals to phenomena (8). Due to a lack of enough knowledge about the study phenomenon and its fragmented identity, an inductive content analysis approach was used. Content analysis was an approach for making valid inferences from textual data for providing knowledge and new insights of realities (9). In this study, the directed qualitative content analysis approach was used (10). A researcher uses this research analysis when there are incomplete theories or when previous studies need further explanations (11).

2.2. Setting

The setting of the current research was the Khoramrudi neighborhood. This is located in the north-west of Tehran, zone 2 of district 2 in Tehran, Iran. Citizens in this zone had a mediocre socio-economic status. According to the results of a study conducted in Iran (2011), in the Khoramrudi neighborhood, most women did not have insufficient PA. Therefore, it seemed suitable for the researchers to select women for participation in this study.

2.3. Participants

Participants were selected using a purposive sampling method with a maximum variation in terms of age, education level, job, and social economic status. Inclusion criteria were a lack of PA, age 18 - 65 years, and ability to speak Farsi.

2.4. Data Collection

The eligible women were invited to participate in focus group discussion (FGD) sessions and individual interviews through the installation of banners and posters within the neighborhood. Firstly, two focus-group discussion sessions were held with 11 and 13 women. Secondly, six interview sessions were held with the qualified women. During the individual interviews and FGD sessions, the participants were asked to describe their perceptions and experiences of barriers to and facilitators of PA.

Before data collection, interview guidelines were developed. The individual interviews and focus-group discussion sessions were conducted in the semi-structured format. Semi-structured interviews sought to explore PA and also provide in-depth understanding of it by giving freedom to the interviewees for pursuing their thoughts and experiences. The questions asked during the interview sessions were as follow:

"What factors can affect PA?", "what are barriers to a desirable level of PA by women?", and "what factors were the facilitators of PA?"

Moreover, branching questions were asked to follow the women's experiences and thoughts such as "please explain it more" and "why and how?". The duration of the interviews varied from 35 to 80 minutes depending on the participants' willingness to provide a complete description of their ideas. The two FGD sessions also lasted between 90 and 120 minutes. During the FGD discussions, notes were taken of key points addressed during the sessions. Moreover, the women were asked to write and cast their comments in a box, if they were unable to express them publicly. After presenting a summary of contents highlighted at the final session, the researcher thanked them for their participation. Besides, the women's consent was obtained to allow the researcher to contact them if more questions were raised during the transcription of the interviews.

2.5. Data Analysis

Data analysis began simultaneously with data collection using the qualitative content analysis approach. The selection of the directed content analysis approach seemed more logical due to the presence of quantitative studies on this phenomenon. The MAXQDA software was used for data management.

The audio files of the focus-group discussions and interviews were transcribed verbatim. The transcriptions were read to get the sense of whole, they were coded, and each statement was considered the unit of analysis. Initial relationships between concepts extracted from the transcripts were detected and codes were developed. The codes were compared together to establish subcategories, categories, subthemes, and themes. In the course of the interviews and clarification of relationships between themes, main patterns and meanings were developed (12).

2.6. Trustworthiness

The trustworthiness was evaluated based on the criteria suggested by Lincoln and Guba (1985) (13). Credibility was established through prolonged engagement with the participants and immersion in the data collection and

analysis. Member checking (review of the handwritten notes by some participants) and peer reviewing (the process of data analysis was provided to some qualitative researchers to be checked) helped verify findings. Triangulation of data collection was conducted through field notes and diaries during the data collection. Transferability was facilitated through the recruitment of women with experiences about the study phenomenon and had regular and irregular PA. A detailed description of findings and literature review was provided to support the study findings. An audit trail was conducted to ensure conformability.

2.7. Ethical Considerations

The ethical approval was obtained from the ethics committee affiliated with the research deputy at the University in which the authors worked. The informed consent form was obtained from the participants prior to the study. The participants were informed that they could leave the study at any time. Also, a pseudonym was taken to maintain their privacy and confidentiality of data throughout the research process.

3. Results

The participants' age was 25 - 58 years with a mean age of 45.9 years. They were from a variety of ethnic backgrounds. Two women (10.5%) were single, 15 individuals (78.94%) were housewives, seven women (36.84%) completed their undergraduate degree, and 8 (42.1%) women finished high school education. Only three participants stated that they were engaged in PA in a regular and daily basis such as walking (Table 1). One major theme followed by three subthemes, 12 categories, and sub-categories were developed in this study (Table 2).

3.1. Individual Factors

This subtheme was consisted of five categories of 'life enhancement', 'physical performance', 'psychological outlook', 'physical exertion', and 'a lack of PA due to health status (health concerns)'.

The participants reported issues such as work quality, effect of sports on mood, impact of PA on flexibility and fitness, and mental health as facilitators of starting and maintaining PA. Moreover, the majority of the participants believed that regular PA boosted their mood and assisted them to control or lose weight. They also believed that PA led to discipline in their daily life as they could exercise and do daily routines and responsibilities in an appropriate manner. One of the participants in the FGD said: "As I do PA, my life gets discipline and I can deal with my activities in an appropriate way."

A sense of fatigue due to PA and willingness toward indolence and relaxation were acknowledged and emphasized by most the women. Some women introduced them as main barriers to PA. One of the participants in the individual interviews stated: "I am a little lazy. In the mornings, I always say that there is no need to have more sleep, but I say that I need sleep more than 5 minutes. Every day, I get up and tend to get out of home to go for a walk, but I do not do it. Sometimes, I feel dizzy and I like to sleep more."

Furthermore, some women expressed their embarrassment regarding PA. In this respect, one of the participants added that: "I have no problems with wearing sports clothing, but I feel ashamed when I like to go to a swimming pool and wear a swimsuit."

Another barrier to PA was infliction with all kinds of movements and joint disorders, which limited all types of workouts. The women were afraid of making their physical status worse due to PA.

3.2. Interpersonal Factors

This sub-theme was comprised of five categories of 'social interaction' (tendency to do PA in the group), 'encouragements by family members and individuals around them', 'necessity to have efficient trainers respecting morals', 'life responsibilities and obligations', and 'cultural and religious beliefs prevailing within the society'.

The importance of the presence of peers for PA, meeting new individuals during PA and the women's tendency to exercise with peers were some facilitators. The women reported that the presence of a peer or a friend increased their willingness to do PA. Some young women stated that they had no tendency to do PA, due to the fact that the majority of them were middle-aged and were not peers. One of the participants in the FGD said: "A person can go for walking alone. However, motivation arises to see each other and have more communication as individuals get them all together in one place and make friends."

Within interpersonal factors, barriers to PA were time constrains for doing PA and self-neglect due to giving a priority to other multiple responsibilities at home and outside home such as the responsibility for being a mother and a spouse, doing household chores, and taking care of their family members. Such responsibilities hindered the women to address their own health as they prioritized these issues over their own health and PA. One of the women participating in the FGD said: "It is all associated with me. I have time to clean the house and take out children, but I do not spend 10 minutes for myself. If I will, I can. I do not set aside some time for myself. I need to weigh it up. I have difficulties for spending time with myself. The main problem is that I need to change my mind. I think if I

Table 1. The Participants' Demographic Characteristics

Participants	Ages, Y	Education	Marital Status	Job	Sufficient PA
6 (individual interviews), 11 and 13 women (two FGDs)	25 - 58	Primary school: 4, High school: 8 undergraduate degree: 7	Single: 2, Married:17	Housewives: 15 Employed: 4	Only 3 women

Table 2. Themes, Sub-Themes, Categories, and Sub-Categories Extracted from the Women's Perceptions and Experiences of Barriers to and Facilitators of PA

Themes	Sub-Themes	Categories	Sub-Categories
Barriers to and facilitators of PA	Intrapersonal factors	Life enhancement	Improving work quality
			Effect of sports on mood
		Physical performance	Impact of PA on body flexibility.
			Impact of PA on body fitness.
		Psychological outlook	Impact of PA on mental health and sense of well-being
			Embarrassment regarding to PA
		Physical exertion	Sense of fatigue due to PA
			Attracted toward comfortable and dizziness
		Health concerns	-
	Interpersonal factors	Social interaction	The importance of the presence of peers for PA
			Meeting new people during PA
			The women's tendency to exercise with peers
		Family and other people encouragement	Having Motivation to do exercise
			Having passion to do exercise
			The effects of peers to do exercise
		The need for efficient and ethical coach	-
		Responsibilities and obligations of life	Time constrains for doing PA
			Self-neglect due to giving a priority to other multiple responsibilities
			Time management
		Cultural and religious beliefs in the community	Women preferences to do exercise in indoor places (keeping Hijab and veils while doing PA)
			Gender differences
	Sports environment	Physical factors associated with sports environment	Lack of health and safety principles in sports' environments
			Adverse weather conditions
			Not having suitable healthy conditions in sports places
			Long distance to facilities for PA
		Organizational and structural factors related to sports environment	High costs of PA
			Access to sports' facilities and equipment
			A few sports places
			Inappropriate schedules in sport places
			Not giving information about sports' facilities

change myself, everything will be right." During the interview, another participant said: "A lot of things have priority for women such as going to hairdresser, shopping, visiting relatives, and something like them. It should be stated that PA is in the third or fourth rank among other priorities by Iranian women."

One other interpersonal barrier highlighted from the perspective of the women was the preference of exercising indoor due to keeping a Hijab and veils while doing PA and gender differences. Since exercising in parks required

veils for the women, they were mostly reluctant to do it in open spaces due to religious attitudes in the society or being exposed to men. In this respect, one participant in the personal interview said: "I cannot do PA in parks, because there are men. While I face men on streets, these interactions are face-to-face. The municipality has also installed some equipment and devices in parks, but I cannot use them. It is my opinion that I cannot run in front of men."

Some women also believed that sports facilities and services were provided and even a specific time was allotted to women in sports places, however, discriminations between men and women were created, which restricted their access to facilities and healthcare services.

3.3. Sports' Environment

It was composed of two categories of 'physical factors' and 'organizational and structural factors associated with sports' environment'.

In the individual interviews and FGDs, barriers to women's PA were described as a lack of health and safety principles in sports' environments as well as adverse weather conditions. Some parks, especially in the morning hours of the days and at quiet times, had insufficient security for women to do PA. In addition, sports places, especially public ones, did not have suitable healthy conditions. One of the participants stated: "I always suggest to my friends to go to a swimming pool, but there are not more than one or two swimming pools in this district. They are all dirty and need to be cleaned up."

Within the categories of organizational and structural factors associated with sports' environment, the high costs of PA, a few sports places, inappropriate schedules in sport places, and giving information about sports' facilities were described as barriers. Besides, the participants added that the costs of participation in sports' courses were high and all individuals could not afford it. The number of public sports places was also low and they were often located away from residence places. Sports' places owned by the municipality also offered free morning exercise programs early in the morning in most districts of the city. Some women stated that there was a lack of sports' facilities in their districts and some of them were not aware of the existence of such facilities in their residence places. No adequate information was also provided in terms of the availability of such places, particularly the free-of-charge ones. One participant stated: "There is a stadium. The morning exercise program is from a quarter to seven to a quarter to eight. At this time, mothers help their kids go to the school. All women have problems with their time as I emphasized in the first session. If it is from the morning to noon in the daily basis in the week, I really like to do PA."

4. Discussion

The results of this study were consisted of three major sub-themes as 'intrapersonal factors', 'interpersonal factors', and 'sports' environment'. Individual factors included 'life enhancement', 'physical performance', 'psychological outlook', 'exercise milieu', and 'lack of exercise due to health status (health concerns)'. The subtheme of interpersonal factors was comprised of the categories of 'social interaction' (tendency to do PA in the group), 'encouragements by family members and individuals around them', 'necessity to have efficient trainers respecting morals', 'life responsibilities and obligations', and 'cultural and religious beliefs prevailing within the community'. Furthermore, the sub-theme associated with sports' environment consisted of categories such as 'organizational and structural factors' related to sports' environment including 'physical factors' and 'organizational and structural factors associated with sports' environment'.

Numerous studies in Iran and other countries investigated barriers to and facilitators of PA among women. For example, Dashti et al., (2014) in a study on 408 women, aged 18 - 59, living in the city of Mashhad, found that major barriers to PA were psychological barriers such as a lack of interest and motivation, physical environment such as a lack of resources or skills, social environment, climate, and a lack of support by the family and peers (14). Some categories developed in this study were consistent with those introduced by Dashti et al., including 'no interest and motivation', 'insufficient resources', and 'no support from family and peers'.

In addition, Osuji et al., in a study on 2510 women stated that a lack of time and motivation within individual factors, having no friends related to the physical environment, and no access to sports' facilities were important barriers to PA. The physical environment was significantly associated with participation in PA (15).

In this qualitative study, life responsibilities and obligations were the categories of the theme of interpersonal factors. Time constrains for PA and self-neglect due to giving a priority to others' responsibilities were barriers to PA. Caperchione, Mummery and Joyner (2009), and Miller and Brown (2005) similarly highlighted socio-cultural factors, family obligations, and household tasks as barriers to PA (16, 17). They also noted that cultural norms led to a high volume of household tasks such as cooking, cleaning (16, 17) and child care (7). However, housework accounts for a major part of women's PA in the day (18, 19). A woman's role in providing primary care within their home is the ethics of care, due to the fact that cultural expectations make women sacrifice their own needs to take care of oth-

ers (20). Accordingly, it is suggested that the ethics of care is an indispensable part of the woman's moral evolution leading to a lack of understanding of the right of doing exercise and spending time on it (17, 21). Moreover, women may feel guilty when they participate in PA and experience a sense of fear in terms of being unable to follow the ethics of care and become a perfect mother (17).

According to women's perceptions of the social constructivism perspective specific socio-cultural actions and behaviors establish the gender-related ideology, which reduced their participation in PA (17). The gender ideology about motherhood is that women have children and must take care of them, however, culture considers what motherhood means, what behaviors and attitudes are appropriate for mothers, and how the woman's identity is created (22). Men, as individuals that play the role of masculine gender, should work outside of their home and leave the household duties to the women (23).

The equal access to leisure time for partners, division of house-work responsibilities, and child health increase PA among women (24), however, the traditional gender-related ideology structuralizes the maternal behavior of women and restricts doing exercise.

One of the categories associated with the theme of individual factors in this study was the impact of the women's health status or health concerns. According to Gatewood et al., (2008), women's health concerns were considered facilitators of and barriers to PA. Some women may start different and new types of PA due to medical concerns (25).

The findings of Gatewood et al., were in line with the results of this study (25). Moreover, Gaston et al., (2007) mentioned that health concerns, a lack of motivation, and absence of social networks were barriers to promote PA in minority women over 40 years (26). In the study of Eyler et al., (2002) medical problems were the reasons for the discontinuation of a walking program (18).

Considering environmental factors, Caperchione et al., (2011) found security as one of the concerns of women living in districts with high crime rates and no awareness of sports' facilities and programs (3). In the present research, a lack of information about existing sports' facilities and security principles were two important barriers to PA. Furthermore, there was an agreement between the findings of the present study and those of Caperchione et al.'s study, in terms of religious barriers to PA.

The study conducted by Motameni et al., (2014) aimed at identifying and prioritizing barriers to PA among 220 women in Semnan, Iran. The barriers were social, cultural, personal, and familial ones and a lack of sports' facilities. The priority of barriers from the perspectives of women was a lack of attention by officials to women's PA as a social barrier and masculine culture within the Iran's sports' society. In addition, inadequate time due to work commitments, and a lack of necessary motivation as the most important personal barrier, household economic conditions as an economic barrier, and inadequate investment on the development of sports' places for women and no access to suitable sports' places were barriers to access facilities for women to do PA (27). Similar to the present study, Motameni prioritized physical barriers as follow: a lack of motivation was a personal barrier and inadequate investment on the development of sports' places and a lack of access to proper sports' places for women (27).

One of the limitations of this study is that this was based on women living in Khoramrudi neighborhood, it might differ from those in other neighborhoods in terms of access to sports facilities and socioeconomic status. It is recommended that this study is carried out in other areas of Tehran. Considering that the level of PA in men and pregnant women is also low, a similar study in these groups should be performed.

Conclusion

The data analysis revealed that the women in this study described some barriers to PA including the sports' environment. Many women did not set health as a priority in their daily schedule due to their multiple responsibilities and high levels of commitments. They acknowledged that each person should plan for one's PA program in spite of other barriers. Given the characteristics of qualitative studies, transferability of the results needs further studies in other contexts and cultures.

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References

1. Mathers C, Stevens G, Mascarenhas M. *Global health risks: mortality and burden of disease attributable to selected major risks*. World Health Organization; 2009.
2. Physical Activity Guidelines Advisory Committee . *Physical activity guidelines advisory committee report, 2008*. Washington, DC: US Department of Health and Human Services; 2008. Report No.: A1-H14.
3. Dumith SC, Hallal PC, Reis RS, Kohl HW 3rd. Worldwide prevalence of physical inactivity and its association with human development index in 76 countries. *Prev Med*. 2011;**53**(1-2):24–8. doi: 10.1016/j.ypmed.2011.02.017. [PubMed: 21371494].
4. Belanger M, Foster C. Worldwide prevalence of physical inactivity calls for worldwide actions. *Prev Med*. 2011;**53**(1-2):29–30. doi: 10.1016/j.ypmed.2011.05.008. [PubMed: 21645539].

5. Centers for Disease Control and Prevention (CDC) . *Behavioral risk factor surveillance system survey data*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2007.
6. Berger G, Peerson A. Giving young Emirati women a voice: participatory action research on physical activity. *Health Place*. 2009;**15**(1):117–24. doi: 10.1016/j.healthplace.2008.03.003. [PubMed: 18515171].
7. Caperchione CM, Kolt GS, Tennent R, Mummery WK. Physical activity behaviours of Culturally and Linguistically Diverse (CALD) women living in Australia: a qualitative study of socio-cultural influences. *BMC Public Health*. 2011;**11**:26. doi: 10.1186/1471-2458-11-26. [PubMed: 21223595]. [PubMed Central: PMC3091537].
8. Denzin NK, Lincoln YS. *The Sage handbook of qualitative research*. Sage; 2005.
9. Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs*. 2008;**62**(1):107–15. doi: 10.1111/j.1365-2648.2007.04569.x. [PubMed: 18352969].
10. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;**24**(2):105–12. doi: 10.1016/j.nedt.2003.10.001. [PubMed: 14769454].
11. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;**15**(9):1277–88. doi: 10.1177/1049732305276687. [PubMed: 16204405].
12. Holloway I, Wheeler S. *Qualitative research in nursing and healthcare*. 3rd ed. Wiley-Blackwell; 2009.
13. Lincoln YS, Guba EG. *Naturalistic inquiry*. **75**. Sage; 1985.
14. Dashti S, Joseph HL, Esfehani AJ, Su TT, Latiff LA, Esfehani RJ. Perceived barriers to physical activity among Iranian women. *World Appl Sci J*. 2014;**32**(3):422–8.
15. Osuji T, Lovegreen SL, Elliott M, Brownson RC. Barriers to physical activity among women in the rural midwest. *Women Health*. 2006;**44**(1):41–55. doi: 10.1300/J013v44n01_03. [PubMed: 17182526].
16. Caperchoine C, Mummery WK, Joyner K. Addressing the challenges, barriers, and enablers to physical activity participation in priority women's groups. *J Phys Act Health*. 2009;**6**(5):589–96. doi: 10.1123/jpah.6.5.589. [PubMed: 19953835].
17. Miller YD, Brown WJ. Determinants of active leisure for women with young children—an "ethic of care" prevails. *Leisure Sci*. 2005;**27**(5):405–20. doi: 10.1080/01490400500227308.
18. Eyler AE, Wilcox S, Matson-Koffman D, Evenson KR, Sanderson B, Thompson J, et al. Correlates of physical activity among women from diverse racial/ethnic groups. *J Womens Health Gend Based Med*. 2002;**11**(3):239–53. doi: 10.1089/152460902753668448. [PubMed: 11988134].
19. Henderson KA, Ainsworth BE. A synthesis of perceptions about physical activity among older African American and American Indian women. *Am J Public Health*. 2003;**93**(2):313–7. doi: 10.2105/AJPH.93.2.313. [PubMed: 12554592]. [PubMed Central: PMC1447736].
20. Choi P, Henshaw C, Baker S, Tree J. Supermum, superwife, supereverything: performing femininity in the transition to motherhood. *J Reprod Infant Psychol*. 2005;**23**(2):167–80. doi: 10.1080/02646830500129487.
21. Lewis B, Ridge D. Mothers reframing physical activity: family oriented politicism, transgression and contested expertise in Australia. *Soc Sci Med*. 2005;**60**(10):2295–306. doi: 10.1016/j.socscimed.2004.10.011. [PubMed: 15748677].
22. Douglas S, Michaels M. *The mommy myth: The idealization of motherhood and how it has undermined all women*. Simon and Schuster; 2005.
23. Dixon J, Wetherell M. On discourse and dirty nappies: Gender, the division of household labour and the social psychology of distributive justice. *Theory Psychol*. 2016;**14**(2):167–89. doi: 10.1177/0959354304042015.
24. Hamilton K, White KM. Understanding parental physical activity: Meanings, habits, and social role influence. *Psychol Sport Exerc*. 2010;**11**(4):275–85. doi: 10.1016/j.psychsport.2010.02.006.
25. Gatewood JG, Litchfield RE, Ryan SJ, Geadelmann JD, Pendergast JF, Ullom KK. Perceived barriers to community-based health promotion program participation. *Am J Health Behav*. 2008;**32**(3):260–71. doi: 10.5555/ajhb.2008.32.3.260. [PubMed: 18067466].
26. Gaston MH, Porter GK, Thomas VG. Prime Time Sister Circles: evaluating a gender-specific, culturally relevant health intervention to decrease major risk factors in mid-life African-American women. *J Natl Med Assoc*. 2007;**99**(4):428–38. [PubMed: 17444433]. [PubMed Central: PMC2569659].
27. Motameni A, Hemmati A, Moradi H. [Identify and prioritize the barriers facing women in sports activities]. *Sport Manag Stud J*. 2014;**24**(111-30). Persian.