

**Promoting physical activity in Iranian women: A qualitative study using social marketing**

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Abstract

Background and aim: In social marketing, at the center of the program is consumer perception. The objective of this study was to explore the viewpoints of Iranian women for tailoring interventions so as to increase physical activity.

Methods: The social marketing model served as the framework of the study. Qualitative data were collected via six semi-structured focus group discussions (FGDs), in 2014 in Iran. Participants were 51 women, 20 to 60 years old, selected by purposive sampling, with a maximum diversity. Qualitative content analysis of the data was conducted by researchers.

Results: After data analysis and extracting initial codes, they were all categorized in four predefined categories of social marketing model (product, price, place and promotion) and related sub-categories. Most of the participants were inactive. Price was addressed by women as the dominant category of this study. The majority of participants emphasized the benefits of prevention of chronic diseases, fitness, staying young, and improving family relations. Most women preferred to do physical activity in a secure and enclosed female environment. And the majority of participants considered radio, television, face to face training, texting, and advertising billboards as promotional strategies.

Conclusion: This study provides a unique insight into consumers' values and motivations that affect consumers' decisions to adopt physical activity, in Iran. It could also help researchers to design and implement intervention programs to increase physical activity.

Keywords: Physical Activity, Social Marketing, Women

1. Introduction

Twenty percent of adults worldwide are sedentary, and inactivity is more common in women (1). Approximately 3.2 million deaths each year are attributable to insufficient physical activity. Insufficient physical activity is also the fourth leading risk factor for death in the world. Moreover, physical inactivity is estimated to be the main cause for approximately 21 to 25% of breast and colon cancers, 27% of diabetes and approximately 30% of ischemic heart disease burden (2). The benefits of physical activity in the prevention of many chronic diseases are confirmed (3, 4). In Iran, on average, 35.7% of the population (25.2% men and 46.5% women) are considered without physical

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activity (5). Social marketing is an approach to strategic planning for adult health promotion that places consumers at the core of data collection (6). The social marketing model is one of the program planning approaches in health promotion and education. Social marketing is defined as using commercial marketing concepts and tools, in order to plan for influencing on the voluntary behaviors of target audiences so as to improve the welfare of the individual and the society. In social marketing programs, effort is made to identify the target group's needs and predispositions, and to plan based on them (7). One of the key features of the social marketing model, is the use of consumer analysis or formative research before designing interventions that, help in better understanding the consumer, his needs concerning health problems and factors affecting them, in order to develop effective strategies (8, 9). A low-cost method of consumer research is using focus group discussions structured with the target audience, which enables a richer understanding of consumers (10). In this manner, consumers', desires, needs, and interests about marketing mix is questioned. Marketing mix or "four Ps" is the hallmark of social and commercial marketing, which includes four major constructs known as (product, price, place, promotion) (7). Product is a behavior or suggestion, which is expected to be accepted by the consumer or target audience. Price is tangible or intangible things that the consumer is forced to lose in order to accept new behavior. Place is where the audience commits the behavior or where the consumer is exposed to the message about behavior. And promotion, is intended use of media, advertising, public relations, and other ways to reach the consumer in order to inform and encourage them (11, 12). In recent years social marketing, in many countries all over the world, is taken into consideration in dealing with health problems, and some examples include: prevention of sexually transmitted diseases (13), consumption of fruit and vegetables (14), domestic violence (15). Also in studies conducted, the use of social marketing model on physical activity has been emphasized (16, 17). Despite four decades of social marketing, Iranian researchers, have published limited literature in this area, like risky driving behavior (12), dairy products (18) and breast cancer screening (19). Historically, most researches on the determinants of physical activity, is done by quantitative studies based on predetermined questionnaires about people's knowledge, attitude, and performance about physical activity (20), which do not provide in-depth information. The correction of lifestyle requires changing behaviors that are induced by daily habits of an individual (21). Qualitative methods, with a deep perception of phenomena, helps health researchers discover behaviors and health-related issues from the point of view of the target population in the context of environment (22). Despite numerous studies on physical activity, there is limited qualitative studies on Iran women's attitudes about physical activity (23, 24). Also, few studies on the use of consumer-centric models such as the social marketing model were found about physical activity, which were mostly done in English and American societies (25-27), and in these studies, cultural themes related to marketing and recruitment strategies emerged. Therefore, due to a high rate of inactive women in Kerman, and the unique characteristics of the social, economic and cultural city of Kerman along with the need for deeper understanding of target consumers about physical activity before doing appropriate and effective interventions, this study used a qualitative approach, which is part of a mixed method study, firstly done in Iran, to extract the Kerman women's viewpoints, in order to design interventions based on social marketing model to increase physical activity.

2. Material and Methods

2.1. Research design

This qualitative study was done in 2014 in Kerman. We used qualitative research since we had no concept regarding the women's ideas or feelings about physical activity and how it might be promoted based on a social marketing theory. Directed content analysis was used because the theory could be extended by this approach (28).

2.2. Research location and selection of participants

Kerman is one of the metropolises in Iran and the capital of Kerman province which is located southeast of the country. One region among four regions around the city of Kerman was randomly chosen. Then again, a neighborhood among the neighborhoods of this region was chosen randomly. Invitation and access to participants for focus group discussions was done in the health center located in the region – due to its acceptability – through clients of that health center, and it was done by authorities of the health center. Samples were considered purposeful and inclusion criteria was, residency in the region for more than a year, age range between 20 to 60 years, lack of disability and ability to participate in focus group discussions.

2.3. Data collection

Data were collected through focus group discussions using open-ended semi-structured questions to elicit information specific to the 4P's in social marketing. In order to extract various data from participants, in each of the focus group discussions, women participated with different demographic characteristics and regardless of the status of previous physical activity. With at least 4 and at most 12 people, focus group discussions were conducted. Time

and place of the interview were determined by participants in the health center of the region. The duration of each focus group discussion lasted approximately 50 to 60 minutes. And sampling and focus group discussions continued till achieving data saturation, i.e. until achieving duplicate data and lack of extraction of new code. Totally, six focus groups discussions with 51 residents of neighborhoods took place over three months. To respect research ethics, at the beginning of each session, in addition to introducing oneself and explaining research objectives to participants, the researcher asked them to feel free to participate in discussions. To ensure maintaining, all words of participants and conformability, all the group discussions were recorded with the permission of the participants. The participants were assured that all personal information would remain confidential at the time of publication and audio files would be deleted. Focus Groups began with general questions; then components of the marketing mix (4p), were questioned about physical activity, to extract themes.

Some of the questions raised in the group discussions:

- 1) Product: What type of physical activity is done more in your neighborhood? Why?
- 2) Price: Why do some women not get enough physical activity in your neighborhood? How about yourself?
- 3) Place: If we want to encourage women to engage in physical activity, where is the best place? Why?
- 4) Promotion: What are notification and encouragement procedures for women in your neighborhood? How about yourself?

All group discussions were done by the same interviewer (first author) and two trained note takers in order to fit all of the interviews in. Responses to questions were promptly written down on papers by note takers during focus group discussions and up to one day after each focus group discussion, the recorded group discussions were accurately listened to by trained note takers to fill the gaps in the writing. Then, all the initial codes by the first author were extracted.

2.4. Data analysis

Consequently, interview transcripts were analyzed for key concepts and variables of 4P's in social marketing. A more deductive approach to content analysis, that was more structured than conventional content analysis, was considered as a form of directed content analysis (28). For general perception of the content of participants' words and immersion in the data, all group discussions were read several times by the first author who attended in all the sessions as manager. Then, to approach data and less interpretation, initial codes of words and sentences used in the manuscript were obtained. Coded texts were discussed and analyzed by two of the researchers (Tabatabai and Eftekhar) to yield a common perception of the descriptions given by the participants in the study. The codes were then categorized based on similarities to form the main subcategories. Then the subcategories were categorized in marketing mix components (4p). Effort was made to create most homogeneity within the categories and most heterogeneity between the categories (29). In order to ensure credibility of the data, researchers retained long-term involvement with the data. Also, in order to increase the internal validity and applicability of the data, member check was done verbally at the conclusion of the study (interpretive validity) (30). This technique was used for those participants by whom a good rapport was built. The interpretation was given to them in order to check the authenticity of the report, by asking their agreement with the interpretation. Group discussions and initial coding and sub-categories were also reviewed by evolutionary viewpoints of the research team and they were applied. In 2013, before conducting, this project was approved by the Research Committee of Tehran University of Medical Sciences.

3. Results

There were 51 participants, of whom the average age was 36 years with a standard deviation of 7. Thirty-six percent were under diplomas, forty-one percent were diplomas and the rest upper diploma. Eighty-two percent of participants were housewives and ninety eight percent were married. After data analysis and extracting initial codes, they were all categorized in four predefined social marketing models (product, price, place, and promotion) and related sub-categories (Table 1).

3.1. Product

Analysis of quotations about the product resulted in two subcategories of physical activity status, and physical activity benefits.

3.1.1. Physical activity status:

Ideas of participants regarding physical activity (i.e., intentional bodily movement) and their related experiences in a typical day, illuminated the finding that most participants spend their leisure time with sitting entertainments such as watching TV, playing on a mobile phone, sitting at the front door and talking to neighbors. "physical activity (in this district) is very bad" or "not good" or "very little". "When ladies get up in the morning, sit and watch satellite TV serials, or play with mobiles...". Most participants addressed individual walking as the dominant physical activity in

the neighborhood. Some participants referred to housework as physical activity. "Since we're housewives, our only exercise is housework."

3.1.2. Perceived benefits:

Participants stated a wide range of physical and mental benefits for physical activity. The majority of participants emphasized the prevention of chronic diseases, fitness and weight loss, staying young, reducing nervousness and better familial relationships. "I myself saw a coach about 60 years old, but she didn't look so..., she was much younger than her age." "Some know sports only for fitness, while it is also spiritually very important." Or "... our behavior with our kids and husband also becomes better".

Table 1. Summary of findings through focus groups

Category	Subcategory	Code
Product	Physical activity status	Inappropriate physical activity, walking as dominant physical activity
	Perceived benefits	Prevention of chronic diseases, fitness and staying young, decreased nervousness and better family relationships
Price	Personal barriers	Family obligations, lack of knowledge and skills, health problems, low self-efficacy
	Environmental and social barriers	Lack of facilities, economic issues, distance to sports club, street harassment, stray dogs and pollution
Place	The right place to get the message	Home, health centers, schools, religious places, buses and public passages
	The right place for Physical activity	Women's enclosed and safe places, residential places
Promotion	Promotional strategies	Face to face training, broadcast, sending SMS, local newspapers, billboards and sport programs
	The effective persons on women's physical activity	Neighbors, Quran trainers, family, friends, health personnel

3.2. Price

The participants' statements about tangible and intangible costs of physical activity were categorized in two sub categories of personal barriers and social barriers.

3.2.1. Personal barriers:

The majority of participants expressed family duties (the traditional role of women at home, especially responsibility for their children and spouse) as the individual attribute that hinders physical activity. "I can't exercise because of my infant, even walking that I should hold my infant in my arms..." Most participants with less education believe they have low capabilities and low control over their own functioning to exercise (low self efficacy)"... You consider it seriously and do something for us..." Some participants expressed the lack of adequate knowledge and skill in physical activity. "We do not know what exercise to do... if we were taught which exercise to do it would be very well." And some of the older participants pointed out physical problems (especially joint diseases) associated with age and fear from side effects of physical activity. For example: "... I can't even walk for 10 minutes, I have arthritis."

3.2.2. Environmental and social barriers:

This category relates to factors in physical and social environments of an individual which limits her physical activity. All the participants expressed lack of proper facilities such as adequate space for physical activity and lack of suitable street and sidewalk as main barriers to physical activity in the neighborhood, much distance from gym and shortage of public transportation was among other expressed barriers. "There is no green space here, dirt streets, no sidewalks." Many participants expressed cultural issues of the neighborhood such as lack of physical activity and fitness value in the neighborhood, sexism, street harassment and spouse opposition due to fear from harassment. "... If you are a girl you do not have security, ... you cannot exercise in front of men who are not mahram." Some participants expressed economic problems and club costs. "Here... mostly retired, with what money we exercise, we need to pay for cabs, and for saloon to go swimming? ..." And some of the participants described environmental pollution due to road traffic vehicles and dirt paths and stray dogs as barriers to physical activity.

3.3. Place

This category is concerned with where women want to be exposed to the message about physical activity or where she would want to exercise. Extracted conceptions were categorized in the form of two sub-categories of right place to get the message and right place for physical activity.

3.3.1. The Right place to get the message:

Facilities and gathering places would be an opportunity for knowledge transfer. Most participants expressed indoors, health centers, schools, mosques and Quran sessions, district entrance, Basij bases, and buses as the right places to get the message. "Inside the town is much better, like at front doors of supermarkets or town entrances..." or "Install brochures inside buses..."

3.3.2. The Right places for physical activity:

Most participants knew a safe and enclosed indoor location (close to home) and parks specialized to women appropriate and a few of the participants also stated the public green space with fitness equipment, the right places for physical activity. "It should be an indoor place. It should be safe. Where we can take off our veils safely... in the house..."

3.4. Promotion

Promotion is intended use of various ways to reach the women in order to inform and encourage them. Two extracted conceptions were categorized in the form of two subcategories of promotional strategies, and effective persons on women.

3.4.1. Promotional strategies:

Most participants mentioned face to face training sessions, mass media (radio and TV), banners and billboards, printed medias (like posters and pamphlets), mobile texting, training CDs, local newspapers, public sport events, and awards as the best ways of promoting and encouraging women. "The best is radio because we are busy in the kitchen from morning and there we hear; hence our chores are not delayed."

3.4.2. Effective persons on women's physical activity:

Most participants mentioned neighbors and Quran trainers. And some mentioned family members (parents, children, sister and wife), friends, health center and medical personnel. "... Our husband encourages us, the kids tell me: Mom walk for half an hour and you'll be nervously comfortable." And some felt that they are not receiving much incentive from other persons.

4. Discussion

In general, it seems that physical activity of Kerman women is a complex situation affected by internal and external factors which price (personal and environmental obstacles) is the most prominent theme of this study and it was somehow effective on other themes, and participants were more likely to have these problems elaborated. Wilson also mentioned the most common barriers to physical activity as family responsibilities, lack of time, lack of facilities, uneven path and stray dogs (31). In another study on American women, fatigue and shyness was addressed as the main causes of inactivity (32). A study of barriers to physical activity in Iran, also confirms these findings (23). Kerman women consider family responsibilities such as cleaning the house and taking care of children as important. And this is consistent with a study conducted on Arab women who have migrated to Australia, (33) and Appalachia rural women (34). Therefore, it is suggested to think of designing familial exercise programs in societies where they care very much about family relationships (35). However, due to street harassment, women should be encouraged to implement collective walking and the necessary consultations with the city authorities, be considered to increase law enforcement in the neighborhood. The results of this study, showed lack of facilities as the most common barrier to physical activity which is on the contrary to MacArthur results in Canada (36). This probably is due to the existence of more environmental facilities in that region. Also, unlike most conducted studies, the results of this study showed a great desire to watch TV series' as one of the main obstacles to physical activities. This is due to limited entertainment of women in this region. So, overall, it seems that most of the barriers to physical activity of women of different countries are the same. And some obstacles can be seen in certain cultures. Participants, knew many physical and mental benefits for exercise which in consistency with other studies, shows that the majority of women in the world, regardless of specific ethnicity, pay more attention to fitness, reducing stress and staying young (20, 34). Therefore, it is better for health promoters, to emphasize on these benefits, as distinguishing feature of physical activity to increase the attractiveness of the product and separate it from other competitors. In general, it seems that the main reason for inadequate exercise of the participants of this study, are the high perceived barriers and high price of the product. Since the cause of not performing some behaviors, is not the perception of its interests, but the high price (10), social marketers must try to affect the perceived price-benefit ratio to adjust the balance in favor of the promoted behavior. So, it is better that social marketers replace the term walking instead of

the term physical activity as a product, because walking has less obstacles and it could be easily done anywhere. But at the same time, it seems that reducing environmental barriers should be considered by officials. In line with a Caperchione study in Australia (33), participants addressed a wide range of activities as physical activity, but unlike some other studies (37-39), they did not mention dance, which probably reflects that in Kerman women's culture, on the contrary to American women, dancing is not recognized as a norm in society. Most participants preferred to receive messages related to physical activity at home, children's school, bus and religious places and in line with a study on immigrants living in Australia (33), most women preferred to do physical activity in a safe and enclosed female place, so considering the lack of sports gym in this neighborhood and the culture of women's timidity and shame, the promoters of health should think of using schools outside of school time, for physical activity of women. Most participants were inclined towards promotional methods of traditional education, radio and television, and they did not mention internet, unlike some other studies (27) and this is probably due to the traditional fabric of the region. Generally, different audiences may respond to a strategy of promoting better than other strategies, so it seems that for social marketers, it is better to send messages through communication channels and multiple promotional strategies until physical activity is turned into a norm. Simultaneous use of multiple channels' probability, increases the probability that the message be heard and implemented (9). Physical activity of women participating in the study, consistent with other studies, is affected by family members, health personnel, doctors and public media (27, 32), but unlike other studies, women participants, mentioned Quran trainers and female neighbors among affective people. Therefore, the health promoters are recommended to use influential people as an encouragement and information gateway. One of the strengths of this study was planning with the opinions and concerns of target consumers with simple and low cost approach to fit programs with the needs of communities in a social marketing approach. Direct involvement of communities in social marketing process helps in creating more effective and stable programs (40). The findings of this study, similar to other qualitative studies, has a low ability to be generalized, especially since this study was only conducted on a limited number of women, especially married and housewives of Kerman. Therefore, generalization of the results of this study to women of other regions should be taken with caution. It is also recommended that to design interventions based on society, in further researches, the viewpoints of spouses and other key people in the community be also taken into consideration. Also, since in this study, focus group discussions were done regardless of previous status of physical activity, hence, in order for better planning, it is suggested that in future studies, in group discussions, people with physical activity and sedentary, be separated.

5. Conclusions

In this study, focus groups can help to understand the consumers view in a way that would not have been accomplished with quantitative data alone. So, this study provides a unique insight into consumers' values and motivations that affect consumers' decisions to adopt physical activity, in Iran, and could help researchers to design and implement intervention programs to increase physical activity.

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Conflict of Interest:

There is no conflict of interest to be declared.

Authors' contributions:

All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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