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Perceived Barriers to Weight Loss: A Qualitative Study of the Lived Experiences of Women with Obesity in Shiraz

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ABSTRACT

Background: Obesity is a public health issue, leading to many medical and socially unacceptable complications. To combat obesity, going on a diet is a routine prescription by dieticians. Although men and women with obesity are equally advised to lose their body weight, almost in all societies women are more adhered to their prescribed diets. However, some of weight reducing diets seems neither effective nor long lasting. This study aimed to assess perceived barriers to weight-loss programs among women with obesity in Shiraz. **Methods:** This qualitative study was conducted in 2017 in Shiraz. To fulfill the objectives of the study, eight semi-structured focus group discussions (FGDs) and seven in-depth interviews with key informants were performed. The eligible participants for FGDs were women with obesity who were not satisfied with their diet and were selected through a public call in Shiraz. **Results:** A total of 1429 initial codes were obtained from FGDs, and after categorizing, four main barriers were resulted. Dietary, socio-cultural, supportive-psychological, and economic issues were identified as the main perceived barriers to weight-loss programs. **Conclusion:** The study findings provided comprehensive information about the probable causes of diet prescriptions failure, which can assist dietitians to improve the efficacy of their weight management advice in clinics.

Keywords: *Obese; Weight-loss; Perceived barriers; Women*

Introduction

The increasing rate of obesity is a critical public health challenge worldwide. According to the World Health Organization (WHO) in 2014, more than 650 million adults around 18 years and older were obese (Baldoni *et al.*, 2019). In 2018, based on BMI, 11% of men and 15% women above 18 years were obese worldwide (Gerdts and Regitz-Zagrosek, 2019) and in the U.S.A women had a higher prevalence of severe obesity (11.5%) than men (6.9%). Based on a recent study, the prevalence of overweight and obesity among Iranian men and women was reported to be 42.8% and 57.0% , respectively (Janghorbani *et al.*, 2007).

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Obesity is a chronic condition which is hard to treat and is related to many adverse health effects namely diabetes, hypertension, dyslipidemia, and cardiovascular diseases. Sustained weight loss is associated with prevention, alleviation, and resolution of many obesity related comorbidities (Martin-Rodriguez *et al.*, 2015, Zevin *et al.*, 2019). Studies have indicated that obesity affects individuals' health and psychological state and emphasized on its role in depression, anxiety, body dissatisfaction, and low self-esteem (Teixeira *et al.*, 2010).

To combat obesity, effective weight-loss programs should be performed (Janghorbani *et al.*, 2007). Recent obesity treatment methods include appetite regulation, reducing stigma, finding the root cause of obesity and overweight, supporting patient-centered lifestyle interventions, and selecting the best treatment method by health care professionals (Wharton *et al.*, 2020). Also, effective and sustainable weight-loss programs encompass persistent supervision through telephone or motivational interviewing, which focused on behavioral change in a supportive manner and, may help obese women to make them a part of their permanent life style (Fruh, 2017, Lemstra *et al.*, 2016, Voils *et al.*, 2018).

However, many weight-loss programs, which combine diet, physical activity, and behavioral change programs are effective only for a short period of time and difficult to maintain (Ogden and Clementi, 2010). It has been shown that 90% to 95% of obese individuals, who manage significant weight loss, will regain their weight over 3 to 5 years of follow up (Ogden and Sidhu, 2006) and just about one in 210 obese men and one in 124 obese women could get normal weight (Lemstra *et al.*, 2016).

It is documented that the perceived barriers to weight-loss programs include poor socio-economic conditions, mental and psychological problems, and poor knowledge about weight loss and diets (Nakade *et al.*, 2012, Sharifi *et al.*, 2013). Furthermore, poor self-confidence and low self-esteem dampen efforts in lifestyle modification over the long term (Lim *et al.*, 2019). Many lifestyle modifications for obesity emphasize principally on individuals to change their eating or physical activity behaviors which are so difficult to perform in such a tempting surrounding that often leads people to adverse behaviors (Wadden *et al.*, 2020). Also, the necessity of retraining workshops that help healthcare providers to better manage weight loss and understand obesity pathophysiology was mentioned as weigh loss barriers by healthcare providers, because they believed that weight management guidelines are insufficient and ineffective (Sharma *et al.*, 2019). On the other hand, lack of insurance coverage for weight loss medications and surgeries was mentioned as another weight loss barrier (Baum *et al.*, 2015).

Regarding the importance of obesity on physical and mental health, the current study aimed to explore the reasons which probably cause fail in weight-loss programs in women in Shiraz, Iran.

Materials and Methods

Study design and participants: In this qualitative study, to acquire a deep awareness of the issue seven in-depth interviews with key informants and eight focus group discussions (FGDs) with obese women were held. This study was conducted and reported according to the consolidated criteria for reporting qualitative studies (COREQ) guidelines.

The eligible participants included 48 single/married women (16 single and 32 married), who had a self-reported failure in weight-loss program; had a body mass index (BMI) above 25 kg/m^2; had no mental illness; aged between 18 and 45 years; and had not performed surgeries, such as bypass prior to the study. They were invited through a public call in local newspaper in Shiraz. At first, phone calls were made to arrange the interviews. About 37 people did not have one or more criteria to be included in the study. Each FGD was conducted with 5-8 participants and lasted for 45-60 min and there were no repeated interviews. The participants in FGDs met the researchers for the first time at the start of the study. They filled out a demographic questionnaire and provided written informed consent which

explained the purposes of the study. The FGDs were guided by a topic guide (**Table1**). The topic guide was designed based on the basic procedure of designing topic guide in qualitative studies (McCabe *et al.*, 2019, van der Borg *et al.*, 2021). The content of topic guide was discussed and approved by a group of experts, including two dietitians. The topic guide was piloted before starting the FGDs. There were 13 questions in the topic guide designed based on the purpose of the study and target groups. The guide was pilot tested. The first five questions were ice-breaking and each question was followed by some probing questions.

The research team for FGDs consisted of one female coordinator and two female dietitians as note-takers. FGD sessions were held in a quiet area in the conference hall of Imam Reza clinic in Shiraz. All interviews were recorded with the interviewee's permission and note-takers took notes at the same time. The notes were not provided to women for correction or confirming; however, the coordinator's understanding of the discussion with the participants was regularly assessed. At the end of each session, anthropometric (including height, weight, hip, and waist circumferences) and demographic data were collected and the participants were gifted kitchen scale and digital body scale.

Seven key informants who were familiar with the field of nutrition and were well reputed on their own expertise were also interviewed. The interviews were hold in their offices and took them about one hour. They included two psychologist, two dietitians, two women with obesity (BMI > 30), and one sociologist. In-depth interviews and FGDs were coordinated by the chief researcher who was a female student of master of Nutrition and was trained for performing interviews and FGDs before the study. She had qualifications in communication skills, active listening, structuring, and recording facts and feelings, and effective questioning techniques.

Ethical considerations: This study was approved by the Shiraz University of Medical Science. All the participants provided written informed consent prior to enrolment in the study. The ethical code is IR.SUMS.REC.1395.S186.

Data analysis: To sort and categorize transcribed interviews, they were entered to MAXQDA 11 to get ready for thematic analysis. To fulfill the analysis, several steps were taken. Initially, the whole documents were coded based on the objectives of the study by the first author and checked by the second author. At the second step, duplicated codes were removed and similar codes were merged. In this way, themes and categories were made. Data collection was ended by reaching saturation which meant new perspectives and explanations were no longer coming from the data. At the end, main themes and categories were finalized (**Table 4**).

Results

Anthropometric and demographic information of the participants are presented in **Tables 2** and **3**, respectively. A total of 1429 primary codes were obtained from FGDs and interviews and after categorizing four main perceived barriers were derived (**Table 4**). The most repeated codes defined as the main perceived barriers and each of them contained several subgroups.

The participants acknowledged that dietary barriers were the most frequently mentioned group of perceived barriers. They included several subgroups namely unpleasant food taste, inability to feel full because of diet, long-term effectiveness of the diet, being hard-to-follow and side effects originated from diet. They pointed to restrictions imposed by the diets and the fact that the prescribed diets were not based on their taste and interests. They believed that dealing with these problems during the period of being on weight loss diet, was the pivotal reason for failing to follow the diet. In response to the questions if they thought weight loss diets were desirable in terms of taste, feel full, and diversity, a woman said: " when I am on a diet, I always feel hungry thus I cannot follow my diet". Another woman in response to a question about disadvantages of weight loss diets said: "Diet takes a lot of time to work". A young woman in response to the question whether they thought long-term follow up to weight loss regimens have

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had health implications, replied: "Because of diet, my body gets weak and I get sick too often, as if my immune system getting weaker".

Social and cultural barriers were the second group of perceived barriers mentioned by the participants. They indicated that the lack of social facilities and lack of knowledge about obesity in society might make them quit dieting. Party and travel were frequently mentioned as threatening factor for weight loss efforts. They also indicated that being on a diet had been correlated with, reduction of their learning capabilities and they were not able to manage their diet program at work place. One of the young participants said: "….obese adolescents are not accepted by society; however, no one supports me (as an obese adolescent) to continue my diet". A woman affirmed her role as a mother on the weight loss diet and said: "When I leave the table sooner than other family members my children also follow me and do not finish all their meals".

The third mentioned perceived barriers were emotional barriers. The participants stated that obesity caused many psychological problems, including lack of self-esteem and dissatisfaction with the appearance. Furthermore, the need for emotional support and encouragement by the family and friends were mentioned as a stimulant factor. One of the women in response to the question about emotional support of family and friends said: "No one helps me or encourages me to follow my dietary programs, and I cannot do it without support of others".

The last group of perceived barriers mentioned by the participants was economic barriers. The participants believed that attending gyms and preparing recommended food stuffs for diet programs was costly and they could not afford it. A woman continued "….visit price is too much for me and I have to go to the clinic every week" and "…after the first few weeks, gradually I felt that the price of dietary items put some pressure on me and I could not afford it".

All key informants were interviewed separately and each interview took them about one hour. They spoke about the subjects of the study and explained their point of view on the barriers to weight management which are reported in Table 5.

Table5. Suggestions and thoughts of the key informants to overcome the perceived barriers for adherence to weight loss diets

Table 1. Questions in the topic guide used for FGDs and in-depth interviews

Number	Questions
1	What is your idea about obesity and over weight?
2	What do you think about weight loss?
3	Do you think diets are effective for weight loss?
4	What are the advantages of following a weight loss diet?
5	What are the disadvantages of following a weight loss diet?
6	What are the barriers to a weight loss diet?
7	Do you agree that emotional support (from family and friends) is essential for continuing a diet?
8	Does the society have a supporting role in the success of weight loss diets?
9	Do you think the economic status of the family affects the success of a weight loss diet?
10	Do you think that one's socio-occupational status has an impact on the success of the diet?
11	Do you think weight loss diets are good in terms of taste, satiety, flavor, and variety?
12	Do you think long-term adherence to weight loss diets is harmful to health?
13	Explain any other comments about weight loss diets.

Table 2. Anthropometric data of the participants in focus group discution (FGDs).

Age group (y)	N	Body mass index (kg/m^2)	Waist circumference (cm)	Hip circumference (cm)	Waist-to-height ratio
18-25	10	26.8	91.8	108.8	0.85
26-30	10	28.1	97.5	111.3	0.87
31-35	8	29.0	96.3	108.8	0.88
36-40	2	27.2	90.5	102.5	0.88
41-45	5	27.9	99.0	109.2	0.90
46-50	7	30.9	98.0	114.1	0.90
51-55	6	32.1	103.0	118.1	0.87
Total	48	28.8	96.5	110.4	0.87

Table 3. Characteristics of the participants in focus group discution (FGDs).

Variables	Number(Percent)
Education	
Diploma and less	15(31.0)
Associate degree	3(6.0)
Bachelor of science	23(47.0)
Master of science	7(14.0)
Marital status	
Married	32(66.0)
Single	16(33.0)
Total	48(100)

Table 4. Emerging themes identified through thematic analysis in 8 focus group discution (FGDs).

Themes Main perceived barriers	Subthemes Subgroups
Dietary barriers	Food taste, Diet and satiety, Length of effect, Restricted access to food, Time restriction, Weight re-gain, Repetitive program, Hard-to-follow, Health problems, Lack of healthy surroundings, Lack of social awareness about obesity
Social and cultural barriers	Lack of urban facilities, Role of parties and traveling in obesity. Stigmatization, Being employed, Motherhood responsibilities, Eating outdoors, Decrease efficiency for studying
Emotional barriers	Disappointment, Lack of self-confidence, Lack of motivation, Lack of encouragement and emotional support from others
Economic barriers	Cost of regular visits to dietitians, Cost of sports clubs (gyms), Cost of supplements and weight loss machines, Cost of dietary items

Table 5. Suggestions and thoughts of the key informants to overcome the perceived barriers for adherence to weight loss diets.

Main perceived barriers	Quotation from key informants (in-depth interviews)
Dietary barriers	• "Observing all aspects of the diet, including diversity, taste, and satiety in setting dietary programs" (dietitian) • "Mental preparation of individuals prior to lifestyle change" (sociologist) • "The prescribed diets should be advantageous and cause no harm to individuals'

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Table 5. Suggestions and thoughts of the key informants to overcome the perceived barriers for adherence to weight loss diets.

Main perceived barriers	Quotation from key informants (in-depth interviews)
	lifestyle" (psychologist) • Failure of the diets to suppress the appetite for fattening foods
Social and cultural barriers	• "The impact of job conditions, such as working hours, tasks, and other coworkers on following the dietary program (should be considered)" (dietitian) • "Being employed and having a job to work out of the house is a positive factor for individuals to follow their dietary program" (sociologist) • "The positive impact of higher social, occupational, and educational status on further efforts to maintain the diet was emphasized" (psychologist) • "The positive impact of social conditions on motivation along with negative effects and job constraints (should be noticed)" (obese woman)
Emotional barriers	• "Receiving support and encouragement from surrounding people to develop a positive attitude in individuals (is necessary)" (dietitian) • "Improving the quality of the community in terms of social health and healthy behaviors (is essential)" (sociologist) • "Receiving support for achieving the desired condition avoiding failure and subsequent complications" (psychologist) • "Need for cooperation of other family members in order to make weight loss easier (is felt)" (obese woman)
Economic barriers	• "Need for adequate financial resources to access a diverse range of food items (is felt)" (dietitian) • "Improving the knowledge of dietitians in order to base their prescription on the financial situation of the client" (sociologist) • "Adapting the dietary program with the financial situation of the clients" (psychologist). • "Need for sufficient financial support in order to follow a dietary program (is felt)" (obese women).

Discussion

According to the results of the current study, several obstacles namely dietary, social, emotional, and economic barriers were the most perceived barriers to weight-loss programs. These barriers have been acknowledged by other studies (Flodgren *et al.*, 2017, Perry *et al.*, 2017).

About the first barrier, the participants referred to the ignorance of some dietitians to the particular conditions of each individual, such as health status, food preferences, family situations, and occupation. The issue has been confirmed by other studies in which the participants in the studies complained about inadequate knowledge of dietitian, low efficiency of their services, unappealing flavor and taste of prescribes diets, mismatch between the diet schedule and working timetable (Amiri *et al.*, 2011, López-Azpiazu *et al.*, 1999).

The social and cultural issues were among the second group of perceived barriers mentioned by the participants. Obesity is believed to be widespread in the lower social classes; however, there are various relationships in socioeconomic status and obesity between countries at different stages of development (Rosengren and Lissner, 2008). From the participants' point of view, being employed as well as spending a lot of time out of home would increase their sensitivity toward their appearance and health status. Besides, they spoke about their role as a mother and its impact on adherence to their diets. They believed that being a mother could disrupt their focus on the diet program (Coe *et al.*, 2017). It was believed that the family events and maternal role (as a person in charge of cooking) had potential effects on

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women’s dietary decisions, and consequently, their dietary behaviors (Brown *et al.*, 2012).

Female subjects in similar studies and diverse communities have mentioned perceived barriers, such as unsafe environments and time limitations for physical activity (Kaveh and Peyrovi, 2017). However, female participants in other studies pointed out the positive aspects of having jobs in following the diet, because of their income which was spent for using the health services and sport clubs (Alm *et al.*, 2008). It has been proven that employed women are less likely to become obese and overweight than nonemployee women (Hammarström *et al.*, 2014).

The emotional and supportive issues were among the third group of perceived barriers mentioned by the participants. They emphasized on the need for proper social support from people at various levels of society. It could be difficult to match the dietary habits, including the type, composition, and timing of food consumption with other members of the family or other relatives (Hammarström *et al.*, 2014). In a study with females they believed that psychological support from people around them, such as family members, friends or tutors, was very effective in following the diet programs (Alm *et al.*, 2008). Some studies have indicated that feeling embarrassed at parties, lack of support from friends and family members, and dissatisfaction with the diet in the family and friends are all barriers to therapeutic diet (Lanoye *et al.*, 2019, Pestoni *et al.*, 2019, West, 2019).

Economic barriers were considered as the last perceived barriers to weight management by the participants. Several studies have highlighted the high cost of preparing healthy food groups as an economic weight loss barrier, and the emphasis of dietitians on some food items, such as meat, dairies, and vegetables, has caused some individuals not to be able to follow the dietary programs for a long time (Alm *et al.*, 2008, Robertson *et al.*, 2014). Similarly, health practitioners mentioned lack of sufficient financial resources as a barrier for individuals to refer to dietitians (Greaney *et al.*, 2009).

We conducted our study in on city of Iran (Shiraz), which may limit the generalizability of our findings because there could be some specific barriers, depending on the culture, society and laws governing each community. The strength of this study is the in-depth and detailed review of weight loss barriers which study the professionals and women attitudes about this issue.

Conclusion

According to the participants, main obstacles toward weight management programs included diet related, social and cultural, emotional, and economic barriers. The results of the present study acknowledge the key role of the dietitians in designing scientific and feasible diets. In this regard, retraining courses for dietitians are highly recommended. Furthermore, the pivotal role of family members and friends in creating a supportive environment for acquiring a healthy life style should be emphasized.

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Authors' contributions

Borazjani M performed the focus groups and interviews, analyzed the data, and drafted the initial version of the paper. Amini M assisted in designing the study, co-wrote, and revised the paper, supervised the research. Faghih SH assisted in conception and designing the study supervised the research. All the authors read and approved the manuscript.

Conflict of interests

The authors declare that they have no competing interest.

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