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Perceived barriers to healthy eating among overweight and obese women: a qualitative study

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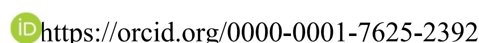

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Abstract

Introduction: Being overweight/obese is a global epidemic and one of the leading causes of cardiovascular diseases (CVD). Knowing the barriers to a healthy lifestyle in target populations is necessary to further reduce the burden of overweight/obesity, which can ultimately reduce the mortality and morbidity following non-communicable diseases (NCDs).

Objectives: To describe the perceived barriers to healthy eating among 35-44 aged overweight/obese women

Methods: A qualitative study was conducted in Panadura Medical Officer of Health (MOH) Area in the district of Kalutara, Sri Lanka. The data were collected using semi-structured in-depth interviews conducted among 18 overweight/obese women. Content analysis of the qualitative data was conducted manually. Coding was decided following a discussion with two independent experts in the field of public health. Using the inductive approach to data analysis ensured that the interpretations and codes of the study were generated from the actual data.

Results: The study identified three main themes which included personal, social, cultural, and environmental barriers as key factors for perceived healthy eating. Under the personal factors, inadequate knowledge, time limitation, lack of motivation, and inadequate cooking skills were identified as subthemes. Social and cultural barriers included two subthemes: immediate family influence and social norms, while environmental barriers included two subthemes: lack of access to healthy options and high cost of healthy options.

Conclusions & Recommendations: Study findings provide important insights into challenges and perceived barriers to healthy eating, which highlight the need for further research based on barrier profiles to design and develop more attractive and realistic community prevention programs for healthy eating.

Keywords: *qualitative study, barriers, eating, overweight, obese, women*

Introduction

An unhealthy diet increases the risk of developing major NCDs such as diabetes mellitus (DM), stroke coronary heart disease and certain cancers, while it directly contributes to an increased risk of being overweight/obese (1). The association between obesity with other diseases such as DM, hypertension and sleep apnoea syndrome has been shown to increase the number of incidents of CVD (2). Being the major disease burden in the world, it is equally important to reduce premature death and disability following CVD (3). The burden is mainly observed in less developed countries and mainly attributed to shifts in lifestyle and dietary changes.

The prevalence of overweight/obesity among Sri Lankan women has increased over the years. The mean BMI among Sri Lankan women aged 15-49 years is relatively high according to the Demographic Health Survey (DHS) of 2016 (24.8 kg/m^2) than that of 2006-07 (23.1 kg/m^2), while the prevalence of overweight/obesity is higher among women living in urban than in the rural areas (4-5).

Prevention of overweight and obesity is possible by minimizing their risk factors. Hence, it is very challenging to find cost-effective ways to provide assistance with weight loss to large numbers of individuals as there are many factors influencing the healthy behaviour of an individual even though overweight/obesity are population problems (6). To prevent any disease due to overweight/obesity, weight loss is important via lifestyle modification, including a hypocaloric diet and/or increased physical activity and behavioural techniques (7).

The current study attempts to access the barriers to healthy eating among overweight/obese women aged 35-45 years to explore the reasons "why" and "how" individuals act in a certain manner to answer complex questions about food-related behaviour (8). Understanding the core problems of risk groups may help public health programme managers and policy makers to design and develop more effective preventive strategies and feasible interventions at the community level to curb the rising trends of overweight/obesity among women in Sri Lanka.

Methods

A qualitative study was conducted in Panadura MOH Area in Kalutara District, Sri Lanka from February to April 2018. A total of 18 in-depth interviews were conducted on both weekdays and Saturdays among overweight/obese women. Participants were recruited purposively from the community with the help of public health midwives attached to the MOH area. The final sample comprised 18 overweight/obese women aged 35-44 years living in Panadura MOH Area for more than six months. This age category was selected as it has potential obstacles to healthy eating and active lifestyle due to their social role and the possibility of weight gain and CVD risk when they are getting closer to middle age (9-10), and thereby adequate time for early intervention where necessary. Women were identified as overweight (≥23-27.49 kg/m$^{2)}$ or obese (≥27.5 kg/m^2) according to the WHO cut-off values in BMI for Asians (11). Recruitment for in-depth interviews was stopped at the point of saturation as there was little or no information from additional interviews.

The principal investigator (PI) had undergone qualitative research method training prior to data collection. Participants were interviewed by the PI after informed written consent. Interviews were conducted in Sinhala language at the central clinic in Panadura MOH Office, which was a convenient place for participants. The PI used a semi-structured guide to conduct in-depth interviews with participants. All the interviews were audio recorded with prior consent from participants. The records were also taken on non-verbal communications made by each participant during the interview (body gestures, tone of voice, facial expressions, etc.) as

notes. Finally, the PI and trained research assistants transcribed the collected data from the audio-recorded tapes and written notes.

The data were analysed manually using content analysis. Selective coding was applied during the analysis. An Inductive approach was used to ensure that codes were generated from the original data (12). Two independent reviewers were involved in resolving the differences in coding. Coding of the narratives was done to understand the real picture of experience or events each participant had with a particular perception or behaviour. Following the coding, categorizing of similar answers and compilation of the data were carried out by the PI.

Results

The mean age of the participants was 38.9 years (SD=2.85). The majority were married (88.9%), while 55.6% of them were housewives (Table 1). Three major themes (Table 2) and participants' views emerged from the interviews as barriers to healthy eating: (i) personal barriers, (ii) social & cultural barriers, and (iii) environmental barriers.

Theme 1: Personal barriers

Inadequate knowledge

One of the main barriers to healthy eating was lack of knowledge on unhealthy food habits that may have some influence on their weight and overall health and the lack of knowledge of risk and its consequences of being overweight/obese.

As demonstrated by many participants, they were not aware of the importance of healthy eating as they mainly considered the taste of the food. Some assumed what they eat has no major impact on their health as they are currently not diagnosed with any disease. A woman aged 36 years mentioned:

> "I don't pay much attention to the food I eat, as long as they are tasty and edible. Not bothered about their nutrient stuff. Look….so far, I don't have any disease."

Another participant stated:

> "I really don't have much idea about what is good or bad for my health and have not paid much interest on their nutritious importance. But I think the food I eat is kind of okay."

Only a few were able to understand what types of food are categorized as unhealthy food choices. Even though too much salt and sugar were identified as unhealthy, none of them were aware of the daily average intake of salt and sugar. Only four of them were able to understand that low consumption of fat is a healthy option.

Among the four participants who agreed on healthy food, none of them were aware of the healthy plate or the recommended portion size for healthy eating. The majority were eating leftover food from previous days and found it difficult to maintain their portion size.

> "It's difficult to think about the amount I should eat to be healthy. Some days I eat more and some days I eat less. But most of the time, I eat what's left from my child's plate after feeding him."

Similarly, another participant stated that it is a waste not to consume leftovers and due to this, she never thought about the importance of healthy eating.

> "Not sure about my ideal portion size and never paid much attention to this. I eat whatever that is available- most of the time food from previous days. It's such a waste to throw food away as long as they are in edible condition.''

As pointed out by the majority of them, they were not aware that being overweight/obese is a major risk factor that could lead to future NCDs. A popular opinion voiced by them was, their weight is not considered a risk factor for future NCDs. One participant stated:

> "I am bit fat, and never considered it as a big issue that can later give trouble to my health. Currently, I am doing fine and I don't have any disease and hope I will be okay in the future as well."

However, many of them assumed major CVD and diabetes can be developed only as familial diseases and would develop only at an older age but not associated with unhealthy lifestyle behaviour that may influence body weight which could compromise individual health and their quality of life. Two participants stated these diseases are very common and they would get them once they are older because their immediate family members have the same disease.

> "My mother has blood pressure. She has been diagnosed with it very recently. So, it makes sense, I might get it once I am her age.''
>
> "I heard about blood pressure and diabetes, but no idea why we get them and how we get them. I think these diseases will anyway come to our lives when we are old."

However, some expressed their concern about being overweight and obese and think it has some impact on their health. Hence, the majority were not aware of the actual risk it carries.

Lack of cooking skills

Among the overweight/obese females, six stated that they have poor skills in preparing food. Adding more oil, spices, salt, and chicken stock cubes are the options they used to make their food tasty.

> "I don't have much idea on how to cook healthy and tasty. I usually add more oil and …… cubes to make my food tasty."

Three participants stated that due to poor cooking skills, they less frequently prepare home-cooked food and eat readily available food items. A 40-year-old woman stated:

> "My children are not very happy about my cooking. They say my food is not tasty as fast food. Don't know how to prepare them tastier. But they should eat something. So, most of the time we eat outside."

Lack of motivation to eat healthy options

Among the overweight/obese females, twelve had low self-esteem in changing their eating behaviour. Many reported it was difficult to stick to healthy eating as it hindered reaching her full potential to engage in day-to-day activities.

> "I need a lot of rice. Tried a couple of times to reduce it. But felt so lethargic and hungry after each meal. So, I lost interest in this method."

Similarly, the majority described difficulties in avoiding overeating and maintaining healthy eating habits when there was too much food available, especially at social gatherings. A woman aged 38 years stated:

> "I tried to make some changes in my diet. I even met a doctor. But it's so hard to follow all these. I feel a bit guilty because when I see tasty food or whenever I am at a party, I really could not restrict any food."

Limited time

Among the overweight/obese females, eight were skipping their breakfast. The majority consumed unhealthy snacks, especially readily available food products such as fish buns, rolls, buns, etc., prior to their large mid-day meal. Their breakfast choices were attributed to a lack of time and tiredness after morning chores. Furthermore, some participants believed that extra time was needed for them to prepare healthy dishes.

> "Only my husband works. I usually look after other matters in the house. Finding time to cook healthy dishes is difficult and it takes a lot of time to cook when each family member prefers a different type of food. I can't spend my whole time in the kitchen only for this."
>
> 'I feel so tired after morning house chores. So, it's easy to eat something from Choon pan'' (mobile food delivery system for bakery products). If I missed breakfast, then I eat more during lunch."

Theme 2: Social/cultural barriers

Family Influences

Six participants reported their spouses are quite satisfied with their weight and body image. They believe a fuller body image is better than being skinny, which makes them less concerned about

their weight and physical appearance. Two women stated that their husband's perception of the wife being overweight/obese was never an issue as they engaged more in house chores.

> "My husband never says anything about my weight and the way I eat. He says I need more energy to do all the house activities, so I don't have any restrictions for food and worry about healthy options…"

Another example voiced by participants as barrier to healthy eating is the food preferences of family members. It is a challenging process to provide a healthy diet when household members have different food preferences.

> "I prefer to eat more vegetables and green stuff... But it's kind of difficult with my husband and children. They need everything fried and lot of rice. My youngest son dislikes green veggies."

Social culture norms

All the participants agreed that social and cultural barriers have some impact on their healthy eating habits. The social relations and traditional eating habits gained priority over healthy eating options especially in households with the elder generation.

> "Most of the time we eat rice and curry three times per day. It's difficult to think about another food option when everybody expects rice all the time."

Another participant stated:

> "I want to reduce my weight and eat less. But I can't do that, as my mother-in-law cooks for us. She will think I am not happy with her cooking if I eat less and will make a big issue at home."

Theme 3: External Environment barriers

High cost of healthy food options

Due to the cost of fresh vegetables and fruits majority were reluctant to buy them regularly. The common statement among them was "healthy food options are more expensive". Due to this, eating healthy was not among their priorities.

A woman aged 42 years stated:

> "Even though they are good, we rarely buy fresh vegetables and fruits. They are usually a bit costly. Considering the living expenses and expenses for children's education, it's very difficult to bear that cost only for food."

Lack of access to healthy food options

All the participants stated that healthy eating is a challenge due to the lack of fresh fruits and vegetables available at the market. The places where fresh vegetables and fruits are available are not easily accessible as they are located very far from their place of residence. A few participants have mentioned that a lack of healthy food options is another barrier to eating healthier.

> "We eat very selective types of foods. We hardly find any fresh vegetables and fruits in the market. They all are sprayed with chemicals. There is nothing to call as healthy."

A 35-year-old woman stated:

> "We used to buy vegetables from a place that is a bit far from our place. Their products are fresh. But it's not possible these days with our work and the travel time. So, we buy whatever is available in the closer market. But they have only limited varieties."

Discussion

Identifying the barriers to healthy eating among women is important and very critical, as it may need more targeted interventions to focus on minimizing the gaps in already existing services and improving lifestyle behaviours. The three main themes: personal, social and cultural and environmental barriers that emerged from the data provide a certain level of insight into factors that may need to be considered by relevant stakeholders to reduce the burden of overweight and obesity among the target population.

Despite their intention to improve their diet, there

were multiple factors identified as barriers to healthy eating. These include a lack of knowledge of being in the risk category of overweight and obesity and what is defined as "healthy eating". The current study findings are consistent with several research studies exploring barriers to healthy eating among overweight/obese women. The influence of knowledge as a barrier to health behaviours has been investigated by many research studies. Increased knowledge about health has been found to have a mixed influence on eating behaviour. When some study findings reported that nutrition knowledge has a certain influence on eating behaviour (13) while some reported having no association with knowledge and food choices or making any dietary changes (14-15). The lack of consistency of possible effects on knowledge and healthy eating may be further influenced by individual self-efficacy levels, expectations, and perceived barriers (16-17). Therefore, simply increasing knowledge about healthy behaviour is not going to be effective, while it may need strategies to make people use this knowledge in practice.

In many studies, time related factor is highlighted as a perceived barrier. Most of the time women do their household chores ranging from cooking to cleaning the house and looking after children, while the male partner looks after the financial aspect of the house. Therefore, women find it difficult to engage themselves in healthy life choices and rely on easy lifestyle choices. These perceived barriers are mainly related to a busy lifestyle, irregular working hours and meal preparation time as healthy foods take too long to prepare (18). Similar findings were seen in the current study as well.

In 1957, Simmel stated that difficulties in trying to eat healthier could be associated with social situations since eating is considered a social situation. As Simmel highlighted, the influence of other people on the eating behaviour of women in the family was demonstrated in many studies (19). In the current study findings “social pressure" is identified as one of the barriers to healthy eating. A study conducted in Iran revealed that family meal routines and lack of support from their spouses and parents were considered social pressure barriers to adhering to healthy eating and losing weight among overweight and obese women (20). One of the significant findings from Asian women is, that they consider the importance of the preferences of other family members, especially their spouse and children when it comes to dietary choices in the family (21-22).

The price and access to healthy food were reported as a barrier by many participants. Thus, this would not be a problem if the nutrition policy and promotion of home gardening is adequately implemented by relevant authorities. In line with other research studies, the current study suggests that there are many intertwined factors influencing the eating behaviour of overweight/obese women. Nevertheless, the current study was a qualitative study, and the findings may provide a unique understanding of overweight/obese women’s perceptions of barriers to healthy eating, which could not be achieved through a quantitative study.

Some of the limitations of this study were, that the current study findings were confined to one MOH area in the Kalutara District while participants in the study may not be representative of the general overweight and obese population in the country. Despite these limitations, there are a very few qualitative studies that explore the barriers to healthy eating among 35–44-year-old overweight/obese women. Therefore, the current study provides certain important factors for policy guidance on modifying exciting prevention strategies in low-resource settings.

Conclusions & Recommendations

The barriers to healthy living among women aged 35-44 years are the result of a multifaceted interplay

of personal, social, and environmental factors. Further research should explore the factors persuading adherence to healthy eating and active lifestyle in urban and rural settings as their barriers may be diverse. To promote healthy eating in the target group of women, it is necessary to evaluate and assess the underlying core barriers to them. The present study uncovered certain unique barriers among the particular age group of women to healthy eating which highlight the need for further research based on barrier profiles to design and develop more attractive and realistic community prevention programs for healthy eating.

Table 1: The study participants' characteristics (N=18)

Characteristics		No.	%
Nutritional status (BMI)	Overweight (≥23-27.49 kg/m^2)	7	38.9
	Obese (≥27.5 kg/m^2)	11	61.1
Age category (years)	35-39	10	55.6
	40-44	8	44.4
Level of education	Grade 5-10	2	11.1
	Passed GCE O/L*	11	61.1
	Higher Education than GCE O/L*	5	27.8
Marital status	Single	2	11.1
	Married	16	88.9
Employment status	Employed	8	44.4
	Housewife/unemployed	10	55.6

*General Certificate of Education-Ordinary Level

Table 2: Thematic framework

Theme	Sub-theme
Personal barriers	Inadequate Knowledge
	Inadequate cooking skills
	Motivation
	Limited time
Social/Cultural barriers	Family Influence
	Social & cultural norms
External Environmental barriers	Access to healthy food options
	High cost of healthy foods options

Public Health Implications

- Given the recognition of the importance of healthy eating for long-term health, the healthy eating promotion should have a broader perspective by portraying that healthy eating can be achieved through everyday eating by encouraging the adoption of good nutrition practices.
- It appears that each specific target group may have its own "barrier profile" and this need to take into account when implementing community based healthy eating programs

Author Declarations

Competing interests: Authors declare that they have no conflict of Interests

Ethics approval & consent to participate: Ethics approval was granted by the Ethics Review Committee of the faculty of Medicine, University of Kelaniya (Reference number P/21/01/2018). Prior to conduct the study, the permission was obtained from the Regional Director of Health Services of Kalutara District and respective Medical Officer of Health area. Informed written consent was obtained from the participants.

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Author contributions: DCK Herath conducted the research as principal investigator. KTAA Kasturiratne contributed as the technical supervisor of the research project.

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