

Original Research/Systematic Review

Weight Management Experience of Women Living with Obesity: A Qualitative Study

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ABSTRACT

Background : Obese women are expected to have physical and psychosocial problems and need to modify their lifestyles. This study explored the factors that influenced weight management failure based on the experience of obese women in West Sumatra with Minangkabau culture.

Methods: Six-Focus Group Discussions were conducted with thirty-one women living with obesity, selected by purposive sampling. A qualitative descriptive study design was used and analyzed using qualitative content analysis

Results: Eight main themes emerged: difficulty moving and irregular periods as physical problems related to obesity; facing ostracization and psychological complaints due to obesity; restricting food intake but struggling with digestive complaints.; unable to avoid unhealthy food and eating in social settings; restricted outdoor activities due to other people's thoughts and judgments; barriers to participating in sports; family and environment support; and the desire that has not been fulfilled.

Conclusion: The results of this study indicate the existence of sociocultural influences for obese women in weight management programs. There is a need for culturally sensitive interventions to improve the role of community leaders and the social environment for women with obesity.

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INTRODUCTION

Obesity, which is characterized by a body mass index (BMI) of more than 30 kg/m², refers to the accumulation of fat in the body (Weir & Jan, 2019). The global incidence of obesity has risen from 34.8% in 2016 to 40%, affecting nearly every country (Lee et al., 2020; Public Health England, 2015; WHO, 2019; Zhang et al., 2020). Both rates are higher in females than in males (Harbuwono et al., 2018). Furthermore, central obesity prevalence among the >18-year-old population increased dramatically from 18.8% in 2007 to 31.0% in 2018 (Nurwanti et al., 2019). On the other hand, overweight and obesity in the reproductive age group are associated with an increased risk of non-communicable diseases in child-bearing age and later life (Karsten et al., 2019; Nho & Chae, 2021).

Obese women face reproductive health issues such as irregular menstruation, Polycystic Ovary Syndrome (PCOS) and infertility often going unnoticed and leading to challenges in the childbearing period (Barber & Franks, 2021). Infertility poses a significant challenge for women within Indonesia's matrilineal culture (Riani et al., 2021). The Minangkabau (also known as Minang) are an indigenous ethnic group celebrated for their long-standing matrilineal tradition, known as matriarchal (Moeis et al., 2022). This well-established social system draws heavily from Minang customs, emphasizing the tracing of inheritance through the female line (Riani et al., 2021). Within this cultural framework, women are responsible for regeneration and are expected to bear daughters (Indrasukma, 2021). Therefore, obese women need to adopt weight management strategies to prioritize their reproductive health.

The most effective way to achieve weight management is through a combination of diet, exercise, and behavioural change (Cheng et al., 2020; Mayer et al., 2021). However, achieving successful weight management is complicated and influenced by many compounding factors, both behavioural and environmental factors (Back et al., 2018; Young et al., 2020). Studies on Japanese-Brazilians show that alcohol consumption and an irregularly active lifestyle are associated with overweight and obesity (Back et al., 2018). Another study found that advice from healthcare providers becomes an important factor in a person's weight management (2020). In the case of Minangkabau culture, obese women encounter additional challenges due to social-cultural factors such as moral commitment, which affects their attitude; the culture of eating at traditional events; almost all foods consumed are boiled with coconut milk; and fried foods with palm oil are considered a daily staple (Deswita et al., 2021; Moeis et al., 2022). Therefore, it is necessary to know what social and cultural factors affect the implementation of weight management in obese women (Aziz et al., 2020).

This study aims to explore obese women's perspectives on their weight management experiences in Minangkabau culture to identify barriers and propose strategies to improve health outcomes. By shedding light on these experiences, this study will provide valuable insights for developing effective weight management strategies that are culturally appropriate for the community.

MATERIALS AND METHOD

This qualitative descriptive study was conducted among obese women living in West Sumatra. The study employed an empirical investigative method to describe the informants' perceptions of their experience (Bradshaw et al., 2017). The lead researcher possesses a background as both a nurse and a researcher, and there was no pre-existing relationship between the researchers and the participants. This study follows the COREQ (Consolidated Criteria for Reporting Qualitative Research) Checklist.

Ethical considerations

This research was approved by the Faculty of Nursing Ethics Committee, University of Indonesia, number KET64/UN2.F12.D1.2.1/PPM.00.02/2022. All participants have explained the research and provided signed informed consent. Researchers allowed participants to refuse or withdraw from the research with no impact whatsoever on them. The researchers maintained the confidentiality of the participant's identity by using the participant's number as the identity in the transcript. Data was stored on a secure drive only accessible by the researchers.

Participant recruitment

Participants were grouped based on age, including students (i.e., junior high and senior high school), college students, single adult women, women with toddlers, and women with school-age children. The inclusion criteria encompassed women aged 12-40 years, with BMI ≥ 30 kg/m² according to WHO standards. The sampling technique is purposive sampling, and no participant refused to participate in the FGD. The participants of this study were women belonging to the Minangkabau ethnic group residing in the province of West Sumatra, Indonesia.

Data collection

Participants were invited by online and offline settings due to the COVID-19 pandemic. Data were collected using six Focus Group Discussions (FGD) between April and July 2022. Three FGDs took place online using the Zoom platform, and three FGDs were conducted offline in schools. The researcher also recorded using a Zoom recorder for online settings and a digital voice recorder for offline settings. In this study, the FGD process was carried out directly by the researchers, supported by the facilitator, and FGDs were conducted once per group. The FGD guide was developed based on existing literature and expert contributions, and it was pilot-tested. Participants were encouraged to freely share their experiences and opinions regarding obesity. The discussions began by eliciting the participants' perspectives on several aspects: 1) their lifestyle; 2) problems related to obesity, including reproductive health; 3) efforts made to modify their lifestyles; 4) perceived support and obstacles; and 5) expectations regarding success in weight management strategies.

To ensure validity, the transcripts and analysis were reviewed by participants for correction. Consultations with experts in qualitative research and maternity were conducted to obtain the reliability of the data. Field notes and observation were utilized in a triangulation method to enrich the research findings. Data collection ceased when data saturation was determined, as no new major themes arose from the data.

Data analysis

The data were analysed using qualitative content analysis. The first author (SD) transcribed the recorded data verbatim. Subsequently, SW, INR, and DA reviewed the transcripts, identified and analyzed the data, and addressed the research questions. Data validity is guaranteed by member checking. The researcher maintains the transferability of the data by clearly describing the background of the participants in this study. The transcripts were coded using NVivo software. The analytical process was carried out at a descriptive level. Coding ideas were discussed among the research team to foster a comprehensive understanding of the data. Collaboratively, the research team (SW, INR, and DA) examined, reviewed, and grouped the codes into broader ideas representing key data concepts. Through five iterative discussions, these groupings were repeatedly refined and developed into themes that aligned with the research questions. The researchers critically reflected on the relationship among the code, themes, and research questions.

Research team/reflexivity

The research team consisted of active university faculty members (SW, INR, and DA) and a research student (SD). Four of the five researchers are women. All have had experience with or training in qualitative research methods. Participants were interviewed by SD. No previous relationship existed between researchers and participants, and participants were made aware of the credentials of the interviewers and their motivations for the research. The research team was aware of assumptions and biases they may have had and addressed these through group discussion of results to promote reflexivity.

RESULT

A total of 31 obese women participated in this study. Most of the participants (77.4%) had higher education, 70% were students, and 83.9% were single. Participant characteristics are provided in Table 1. There are eight themes illustrating that women living with obesity have made efforts to lose weight but have not been able to succeed. The causes of their failure were perceived as coming from themselves and social-cultural factors.

Theme 1: Difficulty moving and irregular periods as physical problems related to obesity

Participants were reflective of negative experiences because of physical problems. Complaints during activities were mentioned by half of the participants: their bodies felt heavy and weak, and their feet hurt when walking or standing for a long time. *"It's so hard to move, it's a heavy body to carry around. I just want to sit and lie down"* (Participant 14). In addition, the thigh area rubs together, causing irritation and difficulty in moving: *"My thighs rub against each other when I walk, so I get irritated a lot"* (Participant 17).

Obesity also affects the reproductive health of obese women, particularly on the menstrual cycle. Participants experienced irregular menstrual periods, sometimes once every two or three months. *"Sometimes there is no menstruation for one month"* (Participant 3). Some experienced menstrual periods twice a month. *"I sometimes menstruate two times a month; the menstruation is not much but long"* (Participant 17). Although the participant recognized that her menstruation was irregular, she made no effort to see a doctor and try to overcome her problems through weight loss: *"If I lose weight and exercise, my periods will become regular again"* (Participant 24).

Theme 2: facing ostracization and psychological complaints due to obesity

Obese women face ostracism and low psychological complaints due to obesity. The psychological complaints felt by obese women are shame, low self-esteem, sadness, irritability, and ostracism from friends. Participants shared their responses to the attitudes and treatment they received from their surroundings: *"So irritable, but also want the ideal body"* (Participant 20). Friends' response to large body size caused sadness and crying. *"There are male and female friends who jokingly say, you're fat, so try to diet, be thin... you're funny when you're obese, you look short"* (Participant 21).

Theme 3: restrict food intake but struggle with digestive complaints

Participants described efforts made to limit eating by reducing the frequency of meals to twice a day, skipping breakfast, and reducing food portions: *"I try not to have dinner; if I am hungry, I just have a snack"* (Participant 30). However, these efforts did not last long because of the onset of stomach pain: *"have been on a carb diet, but only for a week due to illness"* (Participant 23). After stopping the diet, participants regained more weight than before: *"Since I got stomach acid, I could not diet. I ended up eating a lot and getting fat"* (Participant 13).

Theme 4: Unable to avoid unhealthy food and eating in social settings

Participants expressed a desire to change their lifestyle to have a healthy body. Barriers are felt when wanting to eat with friends and difficulty in avoiding unhealthy foods. This is because the fried food was served by the family at home: *"Because my mom sells fried food, I eat 3 pieces of fried food in the morning"* (Participant 1). Another participant said that coconut milk food is a daily menu served at home: *"Daily cooking at home is coconut milk"* (Participant 1). In addition to being available at home, unhealthy foods such as nuggets and fast food become the food of choice when going out with

friends. *"I'd like to eat out with friends. We usually buy nuggets, burgers, and fried chicken"* (Participant 8).

Theme 5: Restricts outdoor activities due to other people's thoughts and judgments

The participants mentioned that they rarely do walking and running sports outside the home because they are embarrassed if they are seen by others when they are alone: *"When I was in college, I used to jog often because there was a field for jogging; the track was made specifically for missions, so we didn't run alone. Now I only jog on the street, there are also many vehicles, and it's also uncomfortable because people might see me later, right?"* (Participant 23).

The participants decided to do exercises at home by watching videos on YouTube: *"I do watch exercises from YouTube two times a month"* (Participant 26). However, it is not practiced consistently: *"The sport I have been doing for the last month is jumping. I do it by myself while watching YouTube. When I'm in the mood, I do it every day; when I'm lazy, I do it five times a week."* (Participant 24).

Theme 6: Barriers to participating in sports

Participants said that since having children, it has been difficult to exercise because of various motherhood tasks. *"I would like the gymnastics to be held near my house. If it's far away, it's hard to leave the children"* (Participant 29). This leaves her with no free time to go to the gym: *"Many activities at home cannot be abandoned"* (Participant 31). This shows that exercise is seen as a narrow indicator of just going out and wearing sports clothes.

Theme 7: Family and environment support.

Participants expressed support for changing lifestyles from their families and the surrounding environment. For married women, the greatest support comes from the husband: *"My husband told me to exercise and manage my meals"* (Participant 30). On the other hand, for women who were not married, the greatest support they received was from their mothers: *"My mother reminded me to limit dinner"* (Participant 26). Support from the surrounding environment comes from friends, superiors, workplace colleagues, and the community: *"My supervisor also said I would give you one year to lose weight"* (Participant 25).

Theme 8: The desire that has not been fulfilled

Participants desired the availability of a weight loss program that was convenient, easy to follow, and had good results: *"Hopefully, there will be health promotion from Public Health Community staff, so we know how to achieve that healthy lifestyle"* (Participant 16). In addition, the participants also expressed their desire to have friends, solid intentions, and motivation: *"I need strong motivation because I currently lack the intention to diet and exercise. I also need friends who are role models to help me succeed in my lifestyle changes. I would like to have friends who are similar in size so that we can support each other in making lifestyle changes"* (Participant 17). Participants also need the availability of information media in the form of an Android application: *"Most of the apps in the Play Store are separated between diet and exercise if you can put the apps together"* (Participant 6).

DISCUSSION

The findings from this study captured the lived experiences of women living with obesity during weight management and provided critical new insights into their experiences. This study revealed that difficulty moving is the most common problem that makes it difficult for obese women to perform physical activity and exercise. Difficulty

moving in obese people, especially for women was also found in another study in Fiji Island (Singh et al., 2022). Obese women should recognize the importance of doing activities to improve heart muscle performance and improve metabolism (Genoni et al., 2021). In addition, obese women should know which physical activities and sports are suitable for their body condition (Deswita et al., 2021). There needs to be a special strategy to improve the physical activity of obese women gradually to prevent negative impacts such as excessive fatigue, muscle pain and increased appetite.

Another physical problem experienced by obese women is irregular menstruation. Menstrual irregularity experienced by obese women is a condition that occurs due to the imbalance of the hormone leptin that predisposes to anovulation (Broughton & Moley, 2017). Despite experiencing menstrual irregularities, respondents did not think about the impact of obesity on the function of their reproductive organs (Hennegan et al., 2019). Thus, respondents did not perform anything to overcome menstrual irregularities. The research suggests giving more information to the participants was required to improve the understanding of reproductive health.

In addition, the mocking and ostracizing from friends left her feeling insecure about doing activities with others and choosing to stay at home (Mosha et al., 2021; Tucker et al., 2017). A person's physical and emotional condition will affect her confidence to take action. Pressure, anxiety, and worry will cause a person to feel unsure of being able to carry out the planned action (Ling et al., 2022). An interesting finding of this research was the psychological impact of how others judge unmarried obese women, especially adolescents. This finding highlights that married women have psychological problems caused by obstacles faced concerning internal body problems such as clothes that no longer fit, while unmarried women have psychological problems due to external attitudes and words. This is under previous studies which found that married Minangkabau women have the strength and assurance of welfare so they are not stressed so much about their body shape and beauty (Deswita et al., 2021).

Participants said their dietary regimen did not long last due to health problems such as stomach ulcers. Obese women attempted to manage gastric pain by eating nearby and in large quantities. This suggests the importance of providing information on meal schedules and appropriate amounts and types of healthy foods to prevent gastric ulcers while on a diet (Bhanbhro et al., 2020). Obese women in Minangkabau realize that coconut milk and high-fat foods are not healthy for their bodies, but it is difficult to avoid them in their daily diet (Gusnedi et al., 2019). The reason for this is due to the food habits of the Minangkabau people who prefer fried and curried foods rather than boiled and steamed (Pawera et al., 2020). These results indicate that Minangkabau people continue to value their traditional food cultures, underpinning the need for interventions to be culturally sensitive (Kunto & Bras, 2019). Based on the results of this study, obese women need education about healthier coconut milk food processing techniques and are recommended to reduce cooking curry and fried and more often make *asampadeh* (curry without coconut milk) and *pangek* (steamed food). In addition, the increasing number of sugary drinks, ice cream, coffee drinks, fast food and high-fat foods sold along the street has become a new culture among young people to shop for food throughout the day, especially in the afternoon and evening (Murni et al., 2022).

Obese women also face challenges in conducting physical activities outside the home because they are embarrassed to wear narrow sportswear and be seen by others. This is following the culture in Minangkabau, where women are mostly indoors (Deswita et al., 2021). Dressing procedures were also governed in Minangkabau culture to avoid

using tight clothing (Asniah, 2020). This leads obese women to prefer exercising inside rather than outside (Aziz et al., 2020). Past research also found that culture and environment were common barriers to women's active participation in physical activity (Balhareth et al., 2021; Singh et al., 2022). Adolescent obese women said that the learning system during this pandemic has led to many assignments from school/college using laptops. This resulted in more time spent sitting and typing assignments. Long sitting on a screen hurts learning during the pandemic (Mulugeta, 2020).

In contrast, obese women who are working or housewives stated that homework and office work cause fatigue so they have no energy and time to exercise. Some participants thought that housework was the same as exercise. This finding was in line with previous research which states that barriers to exercise are a lack of self-discipline, a tendency to blame external factors and lack of time to exercise (Morgan et al., 2011). Obese women say they need support from friends and family to be motivated for weight management. These findings aligned with previous research which found that motivation is a significant barrier to diet and exercise (Singh et al., 2022). Korom et al (2023), prove that efforts to increase individual motivation were carried out by involving friends and family.

Obese women require education from health professionals about the appropriate diet and exercise for their body condition. The weight management program is easy to follow and has no other health impacts. Participants also revealed that family and their environment are a source of support received by obese women in losing weight. However, the support received has yet to provide maximum results for changes in the participants' lifestyles. Additional support is needed from health professionals to assist obese women in planning lifestyle changes. Overall, identification of short- and long-term goals, sources of support that can be used, and time management strategies for implementation of these actions (Amiri et al., 2015; Curry et al., 2018).

Based on the results of this study, it is also known that the participants expect to have friends, solid intentions, and motivation as well as the availability of information media in the form of an android application to give hope to the participants for success in losing weight. Previous literature suggests that obese women need to reestablish their self-esteem and dignity through long-term support for relationships with others (Korom et al., 2023). Other studies explain that social and emotional support in fellowship with peers, feelings of togetherness, and the creation of new relationships and friendships become essential for well-being and meaning in everyday life and also serve as a motivation for lifestyle continuation (Täuber et al., 2018). Perceived health status and self-efficacy are the antecedents of self-management activities and processes (Bretschneider et al., 2022). Barriers to self-management include depression, weight problems, difficulty exercising, burnout, poor doctor communication, low family support, pain, and financial problems (Alleva et al., 2021; Emmer et al., 2020).

The uniqueness of this study is the specificity and detail in which participants were able to describe the impact of obesity, obstacles, and support and expectations from among the Minangkabau people. While some general practitioners and practice nurses worry that their lack of experience with weight issues reduces their ability to understand patients' problems, they have yet to explain precisely how they would do this (Mazza et al., 2019). Research on the Minangkabau community is needed to ensure that when problems are presented to people with a particular culture, differences in problem-solving strategies that are appropriate to that culture can be understood (Stefani et al., 2018). All

health workers can use the problems described in this study to find out what solutions are appropriate for overcoming the problem of obesity (Mirkarimi et al., 2017).

This study identified many factors that influence the self-efficacy of obese women in changing their lifestyles. These factors are related to the knowledge and understanding of healthy eating patterns, awareness of self and environmental barriers, and support from peers and family (Curry et al., 2018). This finding supports one of the main principles of the theory of change, namely the existence of self-confidence and strong motivation to change lifestyles (Tucker et al., 2017). One of the clear findings of this study is the importance of media information in supporting the self-efficacy of obese women. It allows obese women to get information, support, and motivation from the surrounding community.

These findings need to be understood in the context of the following limitations of the study. A limitation of this study is limited geographically to West Sumatra with a specific culture, which may limit the transferability of the results to other Indonesian populations. This study was also limited only by participant perceptions because did not involve the family and peers. As we found that social supports are important for obese women, further research should be conducted involving interviews with peers and family.

CONCLUSION

This study explored factors that influenced weight management failure based on the experience of women living with obesity in the West of Sumatera with Minangkabau culture. It was found a lack of social-cultural support for obese women in weight management programs. In addition, a physical problem experienced by obese women is irregular menstruation. It will affect the reproductive health of obese women related to their role in Minangkabau culture as a continuation of the lineage. The barriers that come from the internal and environmental caused the effort to change the lifestyle were not sustained. Obese women require support from their families, especially parents, relatives, and husbands. However, it is necessary also to increase the role of community leaders and the social environment to increase the confidence of obese women in changing their lifestyles.

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