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FAMILY EXPERIENCES IN CARING FOR FEMALE ADOLESCENTS WITH OBESITY BASED ON FAMILY CARE FUNCTIONS

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ABSTRACT

Obesity is a sensitive health issue for female adolescents because it causes physical and psychological problems. The family, as the closest support system, is an influential element in carrying out health functions. Therefore, this study aims to explore the experience of family caring for their daughters who are obese. This was a qualitative study with a phenomenological description design, comprising 6 mothers of obese female adolescents in Pekanbaru city, Indonesia. The sampling technique used was purposive sampling, and data collection was carried out using in-depth interviews. Data were then analyzed using Colaizzi analysis. The results showed that there were 5 themes regarding family health functions, including recognizing family health problems, deciding family health measures, carrying out family health care, modifying the family health care environment, and using family health services. Obesity prevention in children and adolescents required a holistic effort involving the family, the surrounding environment, and health services as a mutually supportive unit to achieve optimal health. The family serves as an agent of change and a role model, playing a crucial role in the family health care process. Parents knowledge and the involvement of professional health workers, including nurses, nutritionists, and doctors, are essential elements that are expected to work together in treating obese adolescents.

KEYWORDS: Adolescent Obesity, Family Care, Family Health

1. INTRODUCTION

Obesity is a condition characterized by excessive body fat accumulation due to an imbalance between energy intake and expenditure (Rapa, 2022). This imbalance causes excess energy to be stored in the form of fat tissue (Kemenkes RI, 2022). The World Obesity Organization (2022) states that, based on age categories, more than 340 million children and adolescents aged 5-19 years are overweight and obese. It is estimated that obesity in children and adolescents is likely to increase by 60% before 2030 (Kemenkes RI, 2022). At present, the National Center for Health Statistics (NCHS, 2020) reports that the prevalence of obesity in adolescents aged 12-19 years is 20.6%, which is higher than the prevalence in children aged 6-11 years (18.4%) and 2-5 years (13.9%).

In Indonesia, the 2018 Basic Health Research results showed an increase in the prevalence of obesity within 5 years among people aged 18 years or older from 15.4% (2013) to 21.8% (2018). Data also showed an increase in the prevalence of obesity among people aged > 15 years from 26.6% (2013) to 31.0% (2018) (Kemenkes RI, 2018).

According to previous studies, adolescents undergoing a developmental journey of self-discovery are vulnerable to accompanying psychological symptoms. A study by Rao et al. (2019) among 69,893 obese adolescents in China found that the prevalence of depression ranged from 10.1% to 26.7%. Other similar studies also found that the prevalence of depression in overweight and obese female adolescents was significantly higher than in males (Jia et al., 2019).

In Indonesia, the Indonesian Pediatrician Association reported in 2017 that approximately 6% of adolescents experienced major depressive disorders. A study of 144,000 respondents found that obese female adolescents were 40% more likely to experience depression than those with an ideal body weight (Kemenkes RI, 2018). This study was supported by Desi, Felita, and Kinasih (2015), who found that 40% of female adolescents were identified with symptoms of depression, higher than the 24% of male adolescents.

Several studies have shown that depression is triggered by physical limitations hindering various activities, leading to passiveness in adolescents. Obese female adolescents report that the majority of peers engage in body shaming, bullying, discrimination, and intimidation (92%), with physical education teachers (8%) reporting the same behavior (Levers-Landis, 2019). The psychological effects of obesity include negative self-image, low

self-esteem, depression, and suicide. Therefore, depression in obese female adolescent is a serious condition that can affect their behavior, emotions, and way of thinking. Its permanent nature requires serious intervention from various parties to overcome (Bintang & Mandagi, 2021).

The family serves as a platform for the intensive and continuous transformation of moral, ethical, and social values. All the behaviors of individuals, such as language, emotions, and skills, are learned and developed within the family, school, and community (Farsani, Kelishadi, and Beshlideh, 2020). Through the family, adolescents' personalities are formed, providing a clear understanding of their own lives, others, and personal principles. This unit also plays a role in preventing depression through communication (Kavehfarsani, 2020).

Adolescents with poor parental relationships exhibit higher levels of depression (Axelta and Abidin, 2022). Obese individuals are often negatively affected by their family members, with many parents responding angrily. This can lead to low self-esteem, eating disorders, and an increased risk of depression (Kavehfarsani, 2020).

To date, there have been no studies examining the role of family care for obese female adolescents. Similar studies have focused on general family care for children (Rohayati, Wiarsih, & Nursasi, 2021; Suprawot, 2019; Tschamler et al., 2010; Muhsin et al., 2022). Based on the aforementioned results, it was important to explore the experience of family caring for obese female adolescents by implementing health care functions. This was expected to allow nurses, particularly those in the community, to address barriers and improve individual health and the family's ability to care for their members optimally.

2. METHODS

This was a qualitative with a descriptive phenomenological approach. In addition, the study aims to explore the experiences of family, particularly parents of female adolescents, regarding their functions in providing health care to children. Qualitative data analysis used the Colaizzi method, which included primary and secondary data collection, data reduction, data presentation, conclusion drawing, and verification.

The participants were recruited using purposive sampling method, and a total of 6 mothers were selected. The criteria for selecting participants included mothers of obese female adolescents, identified through health service data collection in junior high schools in Pekanbaru City. These mothers were domiciled in Pekanbaru City, willing to

participate, and able to communicate effectively in Indonesian.

Data were collected using the In-depth Interview method, with Indonesian as the medium of instruction. The initial was conducted to introduce the participants, explain the aims and objectives of the study, and foster a relationship of mutual trust. The in-depth interview instrument was validated by the Supervisor and Co-Supervisor of the principle author. Interviews were recorded using an electronic recorder and transcribed into a worksheet. Four standards, credibility, dependability, transferability and confirmability (Lincoln & Guba 1985) were used to establish the trustworthiness of the study. Credibility was established by continuously verifying findings with the participants and researchers. The researcher has experiences in qualitative research and held discussions to ensure the credibility of the data. Researcher team analysed data independently, then meetings were held to discuss the preliminary analysis and discussion used to reach consensus. Participants then clarify, confirm or disconfirm the emerging findings from the

interviews. To achieve dependability, firstly, the interviews were conducted and transcribed verbatim. Secondly, intra-coder reliability (94%) as well as the intercoder reliability (90%) was established to demonstrate the dependability. The in-depth interviews that resulted in abundant data which reflected the participants' experience could be identified as the transferability. Transferability was supported when the findings were presented at conferences. Since credibility, dependability, transferability was addressed, confirmability was achieved. The interview questions covered knowledge, effects, preventive measures, treatment, and the accessibility of professional health services related to adolescent obesity. Furthermore, this study has received approval from the Andalas University ethics committee with reference number 163/UN.16.2/KEP-FK/2023.

3. RESULT

A description of the participants' characteristics is presented in Table 1.

Table 1: Characteristics Of Parents Of Obese Female Adolescents In Pekanbaru City.

Participant Code	Age	Education	Occupation	Child's Weight (kg)/ Height(cm)
P1	41 Years	Bachelor's Degree	Teacher	84/159
P2	46 Years	High School	Housewife	85/164
P3	40 Years	Bachelor's Degree	Housewife	75/154
P4	42 Years	Vocational School	Entrepreneur	79/154
P5	45 Years	Associate's Degree	Entrepreneur	79/157
P6	41 Years	High School	Housewife	70/151

P = Participant

Based on Table 1, all participants were mothers of female adolescents aged 40 to 46 years, with various educational and professional backgrounds, and children's weights, with the overall Body Mass Index (BMI) category being +2 or according to WHO standard $>+2$ SD using Z scores. Analysis of in-depth interview data with family of obese female adolescent resulted in 5 themes identified from the answers to questions, including (1) recognizing family health problems in the form of obesity, (2) deciding on health measures for obese female adolescent, (3) caring for obese female adolescent, (4) modifying the environment for obese female adolescent, and (5) using health facilities.

Theme 1: Understanding Family Health Problems

Family health care is an aspect of community nursing that is a crucial focus for improving health. The earliest task of family health is identifying problems. Based on participant experiences, results showed that mothers generally had basic knowledge

related to obesity and its associated psychological effects. There are two subthemes, namely knowledge about obesity and knowledge about the psychological effects of obesity.

a) Knowledge About Obesity

A basic understanding of obesity from mothers encourages the family to learn more about and identify the causes of obesity, from high-calorie and high-fat foods to specific symptoms, such as physical fatigue and respiratory problems. A total of 5 of the six participants expressed family knowledge about obesity, including its causes and symptoms:

"She is the type who likes to cook more, for example, I have cooked chicken curry, then she cooked something else." (P3)

"The symptoms are shortness of breath, difficulty moving, and just sweating, that's what I know." (P4)

b) Knowledge About The Psychological Effects Of Obesity

Family knowledge about obesity extends beyond

appearance and physical impairments to the psychological effects experienced by female adolescents, which can trigger depression. The mothers learned from their daughters' behavior and expressions that the psychological effect often stemmed from unpleasant remarks about physical condition from those around. This often led to passive and antisocial behavior, poor self-image, and unstable coping mechanisms. A total of 5 of the 6 participants expressed this sentiment:

"If she is stressed at home, what does she do? She likes to daydream." (P1)

"Yes, it is limited to choosing clothes. Bullying definitely exists, well, one of them is bullying that starts from elementary school until now. Maybe they have started to be friends, but it definitely still exists." (P2)

"I think if the children think maturely, this problem of depression will not happen" (P 6)

Theme 2: Deciding On Family Health Measures

Deciding on family health measures is the second step family members consider when treating obese female adolescents to manage the physical and psychological effects. According to mothers, as the closest social supporter, the decision to seek treatment is based on the severity of depression. Therefore, most mothers believe that if these effects cannot be managed, treatment decisions will be directed to a health professional, and vice versa.

a) The Level Of Urgency Of The Effect Of Depression Due To Obesity

The urgency level of depression in the family is related to parents' views on handling depression due to obesity in female adolescents, as stated by 3 of the 6 participants:

"It must be addressed because the effect of obesity can occur in our children." (P2)

"It must be important, specifically if she has entered puberty, right?" (P5)

"If it has been going on for a long time, she's like daydreaming, and then she doesn't want to socialize with her friends or with us as parents, she should be taken to a health professional who can handle it." (P6)

Theme 3: Carrying Out Family Health Care

Providing family health care is the third step taken by the family in their care process. Through this task, it is expected that the family will be able to implement appropriate care for the female adolescent based on their needs. The family's ability to understand issues, such as the definition of obesity, its characteristics, as well as its physical and psychological effects, serves as a guide in fulfilling

their roles. There are two subthemes, namely physical support and psychological support from parents in preventing depression in obese adolescents.

a) Physical Support For Weight Loss

Family promotes healthy weight loss for their daughters through positive activities, such as swimming, walking, and jogging. According to mothers, these activities are considered more engaging and encourage daughters to start a healthy lifestyle. Furthermore, the involvement of family members, such as parents and siblings, increases motivation and helps to avoid sedentary lifestyles. This statement was echoed by 4 of the 6 participants.

"I've only been exercising recently. In the morning, I usually take my daughter to the mosque for morning prayers. It's quite a walk from the mosque to my house, so I consider walking to the mosque and back exercise. I also usually take her to school, and then I make her walk home...." (P3)

"Yesterday's sport was definitely swimming. She loves swimming. Although it's not always the case every day, she'll go swimming this afternoon. She's already made an appointment with her sister. (P 5)"

"At home, she jogs in the afternoon with me regularly twice a week, but I'm trying to make it more regular now." (P 6)

b) Psychological Support From Parents For Preventing Depression In Adolescents

According to parents, some psychological steps taken to prevent obesity-related depression include praise that reinforces self-confidence, motivation, and increased attention to their growth and development. While mothers reinforce their children's mental health, there is also an awareness that obesity is worth preventing. This is because it leads to low self-image and is associated with other serious physical health problems. The statement was made by 5 of the 6 participants.

"In our family, the most important thing is not to tease her, just keep motivating her. "Dear, cut down, or you'll gain weight. Dear, don't do this, or you'll gain weight." I always tell her that. In the past, if she seemed unhappy with the advice, we'd just keep quiet and not discuss it anymore. However, when she's happy or after we've taken her for a walk, we'll give her some more advice." (P1)

"If it's for my children's level, I think no, because in our family no one discredits or insults." (P3)

"For me, to prevent depression, that's what I said earlier. I might tell my daughter, "It's okay for you to be like this," but while I'm encouraging her, I also remind her to keep losing weight. That's how it's like, giving motivation while being motivated. But the problem is that

I am not with my daughter 24 hours a day, so I can't control her like that, right?" I just feel like how can I raise her own awareness that if she's fat, it's not just a matter of appearance but also health.. (P4)"

Theme 4: Modifying The Family Health Care Environment

Modifying the family's health care environment is the fourth step the family can take. Through this step, it is expected that the family can foster a conducive environment for female adolescents to achieve weight stability. The desired environmental comfort is not only physical but also psychological, as this action supports safety and reduces the risk of health problems. Therefore, the fourth family function has 2 sub-themes, namely modification through the physical and psychological environments.

a) Physical Environment

Parents' support for obesity prevention through the physical environment is closely related to the availability of facilities and activity plans. Mothers generally stated that support for a good physical environment could be achieved by providing exercise equipment, such as mats and other sports gear, and scheduling daily activities that contribute to a calorie deficit, such as walking. This statement was made by 4 of the 6 participants. They said:

"In order to support weight loss, ma'am, we are trying to provide exercise mats like that" (P1)

"Regarding the physical environment, if parents are able, I think it would be good if they made or bought sports equipment so it would be easier to monitor them at home." (P3)

"When she goes to school, I usually drop her off, and when I get home, I tell her to walk. I have only been telling her to move around on the way home since junior high school." (P4)

b) Psychological Environment

Parents' support in preventing depression in adolescents through a psychological approach is one of the changes expected to support health improvements in female adolescents. Most mothers agreed that this support can be achieved through motivation, creating comfort, and fostering feelings of happiness. This statement was expressed by 4 of the 6 participants. Two of them said:

"Perhaps by providing comfort at home. Don't just talk about it, meaning don't tell them every day not to eat this, eat less of this, eat less of that. Just reduce the portions. So, words that make them unhappy are reduced. For psychological reasons, like the motivation mentioned earlier, for the physical environment, we think about what kind of environment can support it." (P1)

"Don't tease, just motivate them to lose weight, "Dear, cut down, or you'll gain weight." (P3)

Theme 5: Utilization Of Family Health Services

Using family health services is the final step the family can take to fulfill their caregiving function. This task aims to ensure effective and professional care from healthcare professionals, focusing on both accessibility and the service programs provided to adolescents with obesity. This study covers 2 sub-themes, namely access to community health center services and the expected facilities provided by these services.

a) Access To Community Health Center Health Services

Visits to health services are an indicator of accessibility, showing a family's awareness of using available health services. Half of the participants stated that they had never visited a nearby health service, such as a community health center, to address obesity issues or the effects of obesity, including depression. This is likely because not all participants perceive obesity as an urgent health issue that needs to be addressed. A total of 3 of the 6 participants expressed as follows :

"Oh, no, ma'am, I've never taken my children to a community health center or clinic to check on their obesity problem before, because it seems like we can still help control their condition unless it's already something... There are many other health problems that can occur because of their body." (P2)

"I never took the children to a health facility regarding obesity" (P3)

"That's why we know that community health centers are for people with urgent and disturbing illnesses. Even though I see my child as fat, she's still active as usual, and her appetite is even bigger than ours. So I don't think it's an illness that requires immediate medical attention. But if she often daydreams, doesn't want to talk, or is too shy, then I think she needs to be taken to the doctor." (P5)

b) Facilities Expected From Health Services

Expected facilities from health services inform the program plan, along with the benefits expected. Most mothers stated that consultations with health professionals are necessary to guide appropriate diet and lifestyle choices. In addition, physical examinations and health education offered by health workers at community health centers give mothers insight into assessing their children's obesity. This statement was echoed by 4 of the 6 participants. Two of them said:

"It seems like advice about eating is really needed. It would be good if obese children came to school, could be

consulted, and given guidance like "It's better if you eat like this, and exercise for at least a certain amount of time is necessary". Sometimes they have the intention, but after a short time, they stop. But if there is guidance, for example, regularly, because sometimes if it's only parents at home who give advice, they pretend not to hear it, but if it comes from other people, they actually obey." (P3)

"Yes, we want to know about children's health problems, and get enlightenment if, for example, health socialization is held by the community health center, that would be very good." (P4)

4. DISCUSSION

The most fundamental function of family health is to identify family problems. Through this task, the family is expected to have good knowledge regarding the causes, symptoms, and identification of the seriousness of health problems, as well as provide appropriate perceptions in dealing with emerging health issues (Akhriansyah et al., 2023). As the closest group for adolescents, the family must be the first line of defense against the various stigmas surrounding obesity. A study showed that environmental pressures, such as peer pressure, significantly affected female adolescents with a higher BMI compared to male adolescents (Strombotne et al., 2019).

Family knowledge of adequate nutrition, along with nutritional management patterns, significantly affected the achievement of ideal body weight (Lidiawati, Lumongga & Anto, 2020). According to a study by Fatmawati, Ariyanto, and Efni (2022), nutritional knowledge affected individual choice of food types and quantities. This was because excess weight reduced physical activity, hence, adolescents or students need to maintain a healthy diet by reducing the consumption of high-calorie foods (Evan, Wiyono, & Candrawati, 2019).

In addition to general family knowledge regarding dietary management, identifying symptoms of health problems is crucial for the family to anticipate potential risks. Adolescents who are obese throughout their lives are also at higher risk of developing several serious health problems, such as heart disease, stroke, diabetes, asthma, and cancer. In addition, negative views about obesity also have psychological and social consequences for adolescents, potentially increasing the risk of depression due to frequent ostracism by peers (Oktavia, 2018).

Once the family can fulfill its role in identifying health problems, the next task is to determine health measures. This task is expected to enable the family to make decisions regarding appropriate treatments

to address the problem, as well as the coping skills in viewing problems, both negatively and positively (Sudaryanto, 2022). In an individual with obesity, although this condition does not immediately attack progressively, when left untreated over a period of time, it disrupts other body systems. The choice of short-term and long-term treatment is affected as children grow, before various complications in each organ, such as asthma, type 2 diabetes, high blood pressure, cardiovascular disease, depression, and orthopedic problems occur (Han, Lawlor & Kimm, 2010). Therefore, family understanding from the beginning by implementing a healthy lifestyle is important, considering that early understanding in children affects their ability to maintain these habits (Moxle, 2019).

Once the decision to provide care for a family member has been made, the family's health care consequently becomes the focus, with the family regarded as the unit of care (Kesuma, 2023). Through this task, it is expected that the family will be able to implement appropriate treatment for adolescents based on their needs. In addition, the family's assistance is tailored to the level of dependency (Yuliyanti & Zakiyah, 2016).

A strong family system is not limited to the mother's role alone, but also involves the essential role of the father in obesity prevention efforts. A study by Vollmer (2018) showed that fathers can identify the main causes of childhood obesity, including genetics, lack of physical activity, and unhealthy eating habits. In the context of identifying strategies for preventing or managing childhood obesity in the family, the father's role often focuses on improving diet and physical activity, emphasizing the entire family through small, implementable steps. This allows fathers to recognize their full responsibility in instilling healthy lifestyle habits in children.

At the next level, once family care has gone according to plan, the external element, namely modifying the healthcare environment, becomes an integral part. This task aims to maintain and modify the client's physical, psychological, and social environment, with the hope of improving family health (Suprajitno, 2003). In this situation, the family should be able to identify the nutritional needs of their members, as children's dietary patterns are linked to obesity (Al Rahmad et al., 2020).

Children's diet is significantly affected by their surrounding environment, both macro and micro. The macro environment, which encompasses factors at the broader society level, has significant potential to affect children's lives at home (Quick et al., 2017).

For example, the availability of food at home is a crucial factor in the microenvironment that supports growth, development, diet, and behavior.

The home and family environment play a central role in shaping food preferences, consumption habits, and improving eating behaviors as a measure to prevent obesity in children. Therefore, the family has been identified as a key target in obesity prevention programs and the promotion of healthy eating (Campbell *et al.*, 2013).

Other studies have argued that the quality of children's diet is significantly affected by the availability of food at home, parents' diet, and family eating habits, hence placing greater emphasis on educational interventions within the family (Santiago-Torres *et al.*, 2014).

The family, as a promoter, fosters an educational environment for children, intersecting with the increasingly sophisticated technology that has developed over the past few decades. Results from a study in Semarang among school-age children showed varying screen time durations, with the highest reaching 5 hours per day and the lowest at 1.82 hours per day (Perdani *et al.*, 2017).

Beyond the small scope of children's activities within the household, the broader context surrounding the home also affects the family's caregiving function for obese children. One study found that physical environments with swings, playgrounds, and other facilities for active movement can reduce obesity rates and improve fitness (Fan & Jin, 2014). Therefore, increasing the number of public open spaces and access to outdoor sports facilities is a key recommendation for obesity prevention. Family involvement in creating an active atmosphere is key to modifying a functional environment for the care of obese female adolescents.

If family care is implemented harmoniously, the involvement of healthcare professionals remains a credible reference in the care of obese adolescents. Providing treatment through community health centers, sub-health centers, health cards, and Integrated Health Posts is a way of using existing

community resources to improve family health (Sudaryanto, 2022). A study stated that the existence of assistance programs that health services can use is one of several influential components in efforts to prevent childhood obesity. This can be achieved through studies on the effectiveness of family parenting patterns, the competency (ability) of family parenting patterns, and the ability of parents to control obesity (Kristina & Huriah, 2020).

5. CONCLUSION

In conclusion, a total of 5 themes emerged regarding the experiences of family caring for adolescents with obesity, including (1) recognizing family health issues, such as the ability to understand obesity issues in general and knowledge of the psychological effects, (2) deciding on family health measures, such as the ability to determine the level of urgency of the effect of obesity-related depression, (3) providing family health care through physical support for weight loss and parental psychological support for preventing depression, (4) modifying the family health care environment through modifications to the physical and psychological environment, (5) using family health services, as assessed by accessibility to community health center services and the facilities expected from community health center services. Therefore, it can be concluded that obesity prevention in children and adolescents is a holistic effort involving the family, the surrounding environment, and health services as a mutually supportive unit to achieve optimal health.

6. SUGGESTIONS

The family, as the children's closest unit, serves as an agent of change and a role model, playing a crucial role in the family health care process. Adequate knowledge from parents and the involvement of professional health workers, including nurses, nutritionists, and doctors, are solid elements that are expected to work together in the appropriate treatment of obese adolescents.

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