



## **Understanding the Perception of Adolescent Challenges in Body Mass Index Reduction: A Qualitative Study**

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### **ARTICLE INFO**

#### **Article history:**

Received July 25, 2023

Revised Sept 18, 2023

Published December 28, 2023

#### **Keywords:**

Adolescents,

Obesity,

Losing Weight.

### **ABSTRACT**

A weight loss program for adolescents needs to be done immediately, considering that the number of adolescents who are obese is increasing. This research contributes to identifying the challenges faced by overweight adolescents in weight loss programs. Data was collected by filling out a questionnaire given directly to the participants. The location where the research was conducted was Yogyakarta City, Indonesia. The questionnaire has been tested for validity and reliability with a value of more than 0.85. This study uses a qualitative research design, with a sample of adolescents aged 15-19 years who are obese. The number of participants is 15; according to the inclusion criteria, the data is taken through in-depth interviews. Results: The difficulty of overweight adolescents in losing weight is due to the lack of parental support in serving food and the lack of support from friends in diet programs. Health programs for adolescents, especially weight loss programs, need to involve peers and support from parents

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### **1. INTRODUCTION**

The COVID-19 pandemic has exacerbated these trends, as restrictions have made it more difficult for adolescents to access healthy foods and remain physically active. The positive number of Covid-19 in adolescents is second after adults [1]. In a survey conducted among low-income urban households in Yogyakarta, the survey found that adolescents consumed fewer nutritious foods such as fruits and vegetables, meat and fish, and legumes during the pandemic compared to 2018. The COVID pandemic has also caused adolescents to engage in activities that tend to be carried out at home, including many activities that are carried out only by sitting and lying down; adolescents are also lazy or don't want to go shopping for food; they tend to take advantage of food services that can be purchased directly delivered to their home. Pregnant women are a susceptible group to COVID-19 infection because pregnant women, in general, are vulnerable to respiratory infection [2]. The risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) to maternal and newborn health has yet to be determined [3].

The Covid-19 pandemic also minimizes activities at school. The impact of school closures without a plan on the health and behavior of adolescents during the COVID-19 pandemic was poor diet and lack of physical activities [4]. The impact of COVID-19 on stay-at-home orders on weight-related behavior found that 69.6% of adolescents experienced more difficulty in achieving weight loss goals, had less exercise time (47.9%) and intensity (55.8%), increased food hoarding (49.6%) and stress eating (61.2%) [5].

Physiologically, pregnant women experience a decrease in the immune system, probably due to an adjustment in the body of pregnant women to babies who are semi-allogenic tissues [6].

Several programs for treating obesity in adolescents are still limited to the scope of schools, concerning the School Health Nursing Program in the form of prevention and control of obesity in adolescents [7]. The implementation of programs that the WHO has carried out to end child obesity shows that social development and human development play an essential role in preventing and controlling obesity in children [8]. From the various causes of obesity and the programs that have been proposed, it has not been able to dig deeper into how adolescents perceive their difficulties in losing weight. For this reason, it is necessary to research to facilitate nurses in providing nursing interventions to help adolescents overcome their difficulties in losing weight. This research contributes to identifying the challenges faced by overweight adolescents in weight loss programs.

## 2. METHODS

### Samples

Sample of adolescents aged 15-19 years who are obese. The number of participants is 15; according to the inclusion criteria, the data is taken through in-depth interviews. Perceptions about being overweight, issues, and problems regarding the quality of life, social support, and physical activity were explored more deeply. The location where the research was conducted was Yogyakarta City, Indonesia.

### Instruments

Related to research ethics, before the instrument was used for data collection, the instruments and research proposals had been tested for research ethics before—research ethics issued by the research committee section of Universitas Respati Yogyakarta.

Implementation of in-depth interviews. Researchers visited the participants' homes to conduct interviews directly. According to the researcher's compiled interview guide, the interview was conducted for approximately 30-45 minutes. The instrument is in the form of open questions, which have been tested for validity through expert judgment. Questions in the form of an interview guide with seven core questions: 1. Perceptions of obesity in adolescents, 2. Views of parents about adolescents who are overweight, 3. Problems with weight loss, 4. The importance of the support of friends and parents in adolescents who are overweight and experiencing obesity, 5. Problems faced by obese adolescents, 6. Health complaints in adolescents who are obese, 7. Difficulty losing weight.

### Statistical analysis

The analysis is carried out through thematic analysis, starting with verbatim transcripts, analyzing important terms, coding, themes, and sub-themes qualitatively.

## 3. RESULTS AND DISCUSSION

### Theme 1: Being overweight is not an ideal weight

Being overweight is not ideal and is an uncomfortable theme for adolescents. Adolescent participants said that being overweight pertains to a disproportionate body, as stated by one participant:

"Yeah, being overweight is not an ideal body, not slim..."

This view is similar to another research that for adolescents who are overweight is not ideal, and adolescents refer to those persons as "chubby" as the most desirable term rather than being called overweight [9].

"I look fat. It's not even comfortable; if I wear clothes, I feel I often don't fit, so it doesn't fit being overweight..."

Adolescents' view aligns with previous research that body size dissatisfaction is related to being overweight and low self-esteem [10]. For this reason, efforts are needed to lose weight for adolescents so that adolescents can get the comfort they want.

### Theme 2. Parents' view about adolescents being overweight is a problem, and losing weight is a concern

The theme of the parent's views of their children who are overweight. Being overweight is a problem, and losing weight is a concern. Parents' view that having children who are overweight seemed to have problems and other fears as conveyed by parents:

"...ouch when I see a fat child, it's a problem to me, I am afraid or worried that our child will have health complications".

Such as, "I want my child to lose weight so there can be no health problems that arise in the future...". This theme is also the same in that the perception of "losing weight" is considered the most motivating for parents and adolescents to lose weight [9].

### **Theme 3. Adolescents cannot be happy without friends.**

Having friends is very crucial to adolescents who are overweight. Most of them don't have enough friends because they don't qualify for the standards some of their friends set.

"I already feel happy enough when I get together with my adolescent friends; even though I'm fat, sometimes it even makes jokes; really, without friends, I can't be happy enough."

The happiness and inability to quality as friends mean a lot to adolescents. Having friends is essential to adolescence. If adolescents have friends, feelings of acceptance and belonging are realized [11]. Sample research shows that adolescents with healthy friendships enjoy several mental health benefits. These benefits include feeling more confident and more motivated in their lives. Adolescents with healthy friendships also experience fewer symptoms of depression and generally experience more positive feelings. Characteristics of late adolescents in decision-making include impulsiveness and preferring peers' views so that, in this case, it manifests in opposing things that endanger health [12].

### **Theme 4. Self-image and popularity become a problem in self-esteem.**

Overweight adolescents often develop problems with self-image and popularity because having a poor self-image for being obese makes them unpopular in school or the community.

"Because I'm fat, I feel I'm not as popular as other friends; the more youthful appearance is part of self-esteem."

Having a good self-image is important, and having one will make others respect you. Self-image is an evaluation of one's self or abilities, such as feelings of meaning, worth, and empowerment, that lasts for some time [13]. The causes of low self-image are repeated failures to reduce body weight, lack of recognition from other people or friends, and ineffectiveness in dealing with problems.

### **Theme 5. Feeling healthy even if there are health issues**

Today's adolescents are known as having excellent and healthy body conditions, as well as being overweight. As stated by the adolescents:

"Even though I am fat, I am healthy and never get sick. Yes, even though I complain a little, I get tired quickly, but I think it's still safe". Other research states that the quality of life of adolescents is in the low category, even though adolescents sometimes feel healthy [14].

### **Theme 6. Low support from parents and friends.**

Overweight adolescents perceive that the loss of support from their parents and friends is a problem. The low support is referred to by adolescents in terms of concern for body weight and food consumption patterns.

"My parents always serve food for all family members without thinking too much about whether all food is suitable for overweight children or not."

Parental support for eating patterns and food choices for children who are overweight is very important. It is mentioned that parental social support in providing food choices makes an important contribution to healthy adolescent nutrition. This is because adolescents will see and do the same thing as other family members in determining food choices; in line with the healthy food promotion model, the findings suggest that the provision of explicit health information on healthy products stimulates healthy food choices in a fast food environment [15]. Another study related to parental support showed that social support could be associated with increased dietary adherence in adolescents [16].

### **Theme 7. High cell phone screen time and less support from friends make it difficult to lose weight.**

Overweight adolescents view their habits of using mobile phones as a problem because it feels like an addiction, and many friends always ask to join live or play games online. That problem can make it difficult to engage in physical activity because there is not enough time due to their limited time for school, work, and using mobile phones.

"It's difficult for me to lose weight through physical activity because I have enough time to exercise, and I don't have friends who want to exercise."

High levels of screen time can reduce physical activity and are a negative health indicator [17]. Increased screen time or use of free-time-based cellphones occurs in adolescents, which causes adolescents to be too lazy to do physical activities [18].

## DISCUSSION

The view of adolescents is that being a teenager who is overweight is an uncomfortable condition. Incidents of feeling uncomfortable due to being fat occur due to the COVID-19 pandemic in Indonesian adolescents due to changes in diet, including snacking a lot and eating more ready-to-eat food [19]. Diets are also failing because of the increased consumption of processed or ready-to-eat foods, both cooked at home and ready-to-eat foods sold in restaurants [20]. Parents see problems in their children who are overweight, resulting in "decreased adolescent physical function," "limited socio-physical roles," and "changes in adolescent health." Parents' view is that they feel like they are losing their child's weight [21]. Great parental expectations must be an essential note for nurses in the community that a desire must be shared to be realized. The Health Program will be easy if it is supported by clients, both teenagers and their families.

The health program for overweight adolescents also includes psychological aspects, such as self-image. Adolescents who are overweight think that having a good self-image is very important, and self-image will make others respect them. Adolescents who were overweight in this study had a few problems with their self-image, such as feeling shy and lacking in self-confidence. Self-image is an evaluation of oneself or one's abilities, such as feelings of significance, worth, and power that last for some time [13]. Causes of low self-image are repeated failures to lose weight, lack of recognition from others or friends, and ineffectiveness in dealing with problems.

Apart from the psychological side, health programs also need to look at the physical side, such as physical complaints. The health of overweight adolescents is currently in good condition; there are no significant physical complaints, only a little quickly tired, the same as adolescents in general, but the worrying impact of health complaints often due to being overweight is that obesity remains a risk factor. Significant for metabolic and cardiovascular disease, even when metabolic health is maintained over a long period [22]. Another study also suggested that a significant later risk factor for overweight adolescents was visceral obesity in adulthood, with an early onset of shortness of breath on strenuous activity [23].

Adolescents who were overweight in this study found it difficult to carry out a weight loss program, and this was due to the lack of support from their parents and peers. Overweight adolescents also perceive a lack of support from friends as a big problem. It is explained that the lack of peer support and the lack of socialization in adolescents can lead to boredom and involve two things: unpleasant emotions and low arousal. Low arousal affects monotonous and sedentary activities, and high rates of sedentary lifestyle were observed among adolescents enrolled in state [24].

The view of adolescents is that friends who do not support physical activity are a problem. Teenagers have difficulty doing physical activities because of a lack of support from friends because friends play games. Physical activity for adolescents is the establishment of quality relationships with peers, and a sense of attachment to adolescents and motivation to lose weight is greater hope for adolescents who engage in physical activity [25]. Adolescent support systems in carrying out physical activities include friends [26]. On the other hand, physical activity for overweight adolescents is not only to lose weight but also for other reasons. Adolescents state that doing physical activity means having fun and spending time with friends, and the importance of having a sports environment will reflect a climate of motivation. Physical activity has many health benefits independent of weight control, including reducing the risk of developing CVD, cancer, and dementia and enhancing cognitive function in older adults [27].

## 4. CONCLUSION

The proposed health intervention program is intended to help overweight adolescents overcome their problems. This is urgently needed because improving the quality of life, social support, and physical activity for adolescents who are overweight need to be optimized. The main problem of adolescents who are overweight is concluded through 7 themes, namely being fat is not ideal body weight, parents consider excess weight in adolescents to be a problem and must be considered, obese adolescents cannot be happy without

friends, self-esteem, and popularity. This becomes a problem for obese adolescents, who still feel healthy now even though their bodies are fat; low support from friends and parents in losing weight and high use of mobile phones make it difficult for obese adolescents to do physical activity.

### Acknowledgments

This work is supported by the Yogyakarta Respati Foundation with contract number 32.0 18/K-YAPENRES/V/2023

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