

INDONESIAN JOURNAL OF COMMUNITY HEALTH NURSING

Vol. 9, No. 2 August 2024

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https://e-journal.unair.ac.id/IJCHN

ANALYSIS OF FAMILY NURSING CARE WITH FOOD DIARY INTERVENTIONS ON WEIGHT LOSS IN ADOLESCENTS IN RW 06 GROGOL VILLAGE LIMO DEPOK

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ARTICLE HISTORY

Received: 2 June 2024 Accepted: 11 July 2024

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ABSTRACT

Introduction: Obesity is the accumulation of excessive fat that can lead to health risks. In adolescence, obesity is at high risk and the incidence of obesity in adolescents is an indicator of a health problem and an increased risk of non-communicable diseases that occur in society. The purpose of this paper is to analyze nursing care with food diary interventions for weight loss in adolescents, where interventions are carried out by adolescents for 30 days by recording the types of food, drinks, and snacks consumed every day and monitoring weight every week.

Method: The implementation method of the intervention in the form of using a food diary for adolescents was carried out first by distributing media in the form of a diary to adolescents, then introducing the media and explaining the contents and also how to use the food diary.

Results: The results showed a significant effect on weight loss in obese adolescents by providing interventions in the form of a food diary, where there was a decrease in body weight in managed and resume patients by 1.4 kg and 1.1 kg.

Conclusion: Parenting in accordance with the development of adolescence must also be considered for parents in an effort to overcome the risk of obesity.

Keywords: Adolescents, Food Diary, Obesity

Cite as:

Anggraini, N. V., & Millenia, N. M. A. (2024). Analysis Of Family Nursing Care With Food Diary Interventions On Weight Loss In Adolescents In Rw 06 Grogol Village Limo Depok *Indonesian J. of Community Health Nurs.*, 9(2), 73-78. <u>Doi: 10.20473/ijchn.v8i2.50089</u>

INTRODUCTION

One of the health problems currently being experienced by the whole world, including Indonesia, is obesity and overweight in adolescents and children. This is marked by an increase in prevalence and the high consequences it has on adolescent health (Banjarnahor et al., 2021). It is known to be a major risk factor for various chronic diseases including cancer, diabetes mellitus, and heart disease.

Obesity is the accumulation of excessive fat that can lead to health risks, while overweight is defined as a condition where an adolescent's weight is more than their ideal body weight (WHO, 2022). Obesity and overweight have also been considered a problem that occurs only in countries with high income, but this problem is also starting to increase in developing and urban countries such as Indonesia (Handayani and Sugiatmi, 2018).

According to WHO (2020), at least 340 million children and adolescents in the world aged around 5-19 years experience health problems in the form of obesity. Based on a national report in 2018, it was found that the prevalence of nutritional status of adolescents aged 13-15 years in Indonesia who experienced problems was 11.2% and obesity was 4.8%. This is also similar to the results obtained in the nutritional status of adolescents aged 16-18 years, which has a prevalence of 9.5% in the obese category and 4.0% of adolescents in the obese category.

In adolescence, obesity has a high risk of occurring and the incidence of obesity in adolescents is an indicator of a health problem and an increased risk of non-communicable diseases that occur in society. According to the Global Burden of Disease (2017), the problem of obesity and overweight has developed into an epidemic and it is known that each year more than 4 million people die from obesity and overweight.

According to the Global School-Based Student Health Survey (2015), adolescents tend to have a sedentary lifestyle, which refers to a lifestyle with little activity and few calories expended, increasing the risk of overweight and obesity and resulting in various diseases and decreased productivity and life expectancy (Ministry of Health of the Republic of Indonesia, 2019a).

Obesity and overweight in adolescents can cause various negative impacts on a person both in physical and psychological aspects. According to Sanyaolu et al (2019), obesity is associated with comorbidities such as hypertension, hyperlipidemia, diabetes mellitus, sleep apnea, and serious depression. Obesity can also lead to decreased selfconfidence and serious psychological disorders (Dewi, Sugiyanto and Widiastuti, 2021).

Kemenkes Republik Indonesia (2019) explained that obesity in adolescents can be avoided by regulating the pattern and amount of food and drinks consumed, increasing fruit and vegetable consumption, increasing regular physical activity, reducing stress, and sleeping regularly and sufficiently. Dietary regulation in obese adolescents regularly and focusing on diet makes it one of the factors to lose weight (Botchlett et al., 2019).

Dietary regulation can positively affect obesity experienced by adolescents (Putri and Makmun, 2021). Dietary regulation and diet-related education can be provided to adolescents using informative and interesting media for adolescents such as diaries or diaries.

The importance of using food diary in obese adolescents lies in its ability to increase adolescents' awareness of the food consumed daily. By recording in detail the food eaten, adolescents can evaluate their overall diet, including the amount of calories and nutrients consumed. This helps adolescents to recognize unhealthy eating habits and improve their diet (Hartmann-Boyce et al., 2014).

By keeping a detailed food diary, adolescents can also identify unhealthy eating habits, such as consumption of foods high in fat, sugar, or processed foods. Food diaries help adolescents to improve their diet, make healthier food choices, and control their portion sizes. The use of food diaries is also considered to be able to assist adolescents in achieving healthy weight loss goals (Burrows et al., 2017).

After conducting a preliminary study in the RW 06 Grogol Village area, Limo, Depok by measuring the weight of adolescents, the results showed that 2 out

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of 5 adolescents were overweight and obese. Based on the explanation above, the authors are interested in carrying out an analysis related to the effect of food diary on weight loss in adolescents who are obese with the title "Analysis of Family Nursing Care with Food Diary Interventions on Weight Loss in Adolescents at RW 06 Grogol Village, Limo District, Depok City".

METHOD

This study was conducted on two adolescents who were obese and overweight in RW 06 Grogol Village, Limo, Depok. The implementation method of the intervention in the form of using a food diary for adolescents was carried out first by distributing media in the form of a diary to adolescents, then introducing the media and explaining the contents and also how to use the food diary. In the activity of filling out this diary, adolescents do the recall method of food and beverage consumption and activities that have been carried out every day.

To make it easier for adolescents to understand and fill out the diary, the author tries to overcome this by providing examples in filling out the diary. The diary filling is carried out for 30 days and weight monitoring is carried out every week.

RESULTS

After the intervention was carried out in the form of using a food diary for 30 days, the results were obtained in the form of weight loss in managed adolescents and resumes. The body weight of the managed patient before the intervention was 68 kg and after the intervention became 66.6 kg, so it can be concluded that weight loss in managed patient was 1.4 kg through the food diary intervention used for four weeks. While resume patient's weight before the intervention was 58.6 kg and after the intervention her weight became 57.5 kg, which indicates that there was a weight loss of 1.1 kg after the intervention that had been given.

Table 1. Weight Distribution of Adolescents after Food Diary Intervention

An. N (Managed Patient)								
Week		1	2	3	4			
Body	weight	68 kg						
before								
interver	ntion							
Body	weight	67,6	67,4	66,9	66,6			
after intervention		kg	kg	kg	kg			
Total	Weight	1,4 kg						
Loss	0			-				

An. S (Resume Patient)								
Week		1	2	3	4			
Body	weight	58,6						
before	-	kg						
intervention								
Body	weight	58,3	58,1	57,8	57,5			
after int	ervention	kg	kg	kg	kg			
Total	Weight	1,1 kg						
Loss	2			-				

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Source: Researcher Data (2023)

The table above shows data in the form of weight distribution of managed patients and resumes after the food diary intervention. After the intervention, it was found that the managed patient, An. N and resume patient An. S experienced a significant weight loss.

DISCUSSION

From the results obtained, it is known that the use of food diaries can reduce weight in obese adolescents. The weight loss that occurred in managed and resume patients was 1.4 kg and 1.1 kg.

Based on the results of the intervention in the form of total weight loss, a difference of 0.3 kg was obtained between managed and resume patients. The difference in weight loss can be influenced by several factors including compliance in recording food, consistency in following the program, and social support for adolescents to carry out interventions (Anwar, 2019; Parikesit, Anggraeni and Wardhani, 2020).

Adolescents' compliance in recording food in a diary will also provide more effectiveness in losing weight. In addition, consistency in following the diary intervention program is also something that affects the intervention carried out, where consistency in following the diary intervention program can be improved by the support provided by family and peers, besides that social support can also increase adolescents' motivation to lose weight (Taufiqurrahman, Tazkia and Sari, 2020).

Different diets in the two patients also affect differences in weight loss in adolescents. Where it is known that resume patients who experience a weight loss of 1.1 kg, have a diet that often consumes sweet snacks and fast food compared to managed patients. This is supported by research by Chung, Kim and Kim, J., & Kim (2019) which shows that obese adolescents who eat healthier foods and reduce fast food and soft drinks experience significant weight loss. In addition, obese adolescents who eat more fruits and vegetables tend to have better weight loss (Wang et al., 2019).

Based on the results of the study, it was also found that before the intervention using a food diary, adolescents had a habit of snacking on snacks and sweet drinks. But after the intervention was carried out, adolescents began to pay attention to the consumption of food they consumed by reducing eating snacks, increasing consumption of vegetables and fruit. This is similar to Dewi, Sugiyanto and Widiastuti's research (2021) which states that before being given a diary intervention, adolescents consume more snacks and fast food. After being given the intervention, adolescents began to change their consumption patterns because adolescents began to be motivated to make changes to consumption behavior and poor eating patterns, and reduce consumption of snacks (Dewi, Sugiyanto and Widiastuti, 2021).

Ahn, Choi and Yeom (2020) explained that the use of a daily diary significantly increases the success of weight loss in adolescents who are overweight or obese. Watanabe-Ito, Kishi and Shimizu (2020) mentioned that the use of diet diaries is considered capable of motivating adolescents in increasing selfawareness related to adolescent eating patterns. In addition, according to Wang et al. (2020) also showed that there were improvements in eating patterns and physical activity habits and helped obese adolescents lose weight. Abdelbasset et al. (2019) also argued that with the use of food diaries, adolescents experienced weight loss and food patterns and physical activity experienced positive changes.

The use of diaries by recording all food and drink consumed each day is considered effective for positive changes in eating patterns and physical activity habits so that it affects the weight loss of obese adolescents (Martin et al., 2021). Other studies that have modified online diaries and nutrition coaching programs for obese adolescents have also shown similar results in the form of weight loss and improved consumption patterns (Sproesser et al., 2018).

The food diary intervention provided for four weeks also showed that adolescents could fill in the diary regularly based on the diet they had consumed. This happens because food diaries are considered to help individuals pay attention to their daily calorie and nutrient intake, and monitor their eating patterns to identify unhealthy eating habits (Hsu and Liao, 2021). Another study conducted by Dewi et al (2021) also showed that there was a significant effect of providing counseling with diaries with eating habits, weight, and energy consumed by adolescents. Wang et al. (2020) also evaluated the effect of using a food diary and found that there was a decrease in body weight, improvements in eating patterns, and physical activity habits.

CONCLUSION

Based on family nursing care with food diary interventions on weight loss in adolescents, where interventions are carried out by adolescents for 30 days by recording the types of food, drinks, and snacks consumed every day and monitoring body weight every week. The results were found in the form of a significant effect on weight loss in obese adolescents by providing interventions in the form of a food diary, where there was a weight loss in managed patients and resumes of 1.4 kg and 1.1 kg.

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