

Implementation and Intervention of *Mindfulness Eating in Overweight Adolescents*

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Abstract

Overweight and obesity can cause obesity and the occurrence of Non-Communicable Diseases (NCDs), where NCDs are the cause of death in the world that has killed 36 million people per year. One solution that can be done to reduce and prevent the number of overweight problems in adolescents is with "Mindfulness Eating Health Education for Adolescents with Overweight". The purpose of this community service is to increase knowledge about mindfulness eating in adolescents. Health education with Mindful eating is carried out for 8 weeks where for 2 weeks there will be 1 meeting a week for 60-90 minutes, After the training activity, the management of health education about mindfulness eating will be measured every 2 weeks using a questionnaire and diet diary, in the last 2 months it will be evaluated. The level of education obtained before management was in the category of high knowledge 2 (4%) increased to 5 (8%), moderate knowledge 13 (22%) increased to 22 (57%), low knowledge 42 (74%) decreased to 20 (35%). The increase in knowledge after providing health education occurred because of the learning process and the provision of clear information. Health education aims to provide information, change behavior, and form attitudes that support a healthy lifestyle. This is proven by this activity where there was an increase in knowledge after providing health education.

Keywords : Overweight, Mindful Eating, Health Education, Level of Knowledge

Introduction

Many nutritional problems Overweight and obesity are often lifelong problems. Excessive weight gain can cause obesity and the occurrence of Non-Communicable Diseases (NCDs), where NCDs are the cause of death in the world that has killed 36 million people per year (Ministry of Health, 2019). Being overweight is different from obesity, overweight is defined as body weight that exceeds normal weight. A further consequence of being overweight is obesity which is one of the risk factors for degenerative and non-communicable diseases, because being overweight is now considered an early sign of the possibility of obesity in the future (NCDs) (WHO, 2025). Excessive accumulation of body fat can threaten health. Obesity was defined by the World Health Organization in 2019 as an abnormal or excessive accumulation of fat that can endanger health (Yanti et al., 2018). Being overweight can affect the physical and cognitive development of adolescents and weaken the immune system (Suri & Mulyati, 2022).

Data from the World Health Organization noted that the prevalence of overweight or obesity among adolescents aged 13 to 19 years increased more than fourfold from 1975 to 2021, from 4% to 18%. Worryingly, the number of overweight and obesity among Indonesian adolescents continues to increase. Survey data on the number of overweight adolescents in 2018 increased

by 31.0%. This proportion will increase by 4.4% in 2023 and 12.2 years thereafter (WHO, 2025). The 2018 Riskesdas also showed differences in prevalence nationally in several provinces in Indonesia. In addition, in East Java province, the overweight rate increased significantly from 12% to 24% in 2016 to 2018. The prevalence of overweight in East Java Province is in the top 10 countries with a ranking of 9th (Dinkes, 2022).

The impact of overweight and obesity is a risk factor for degenerative diseases, cardiovascular disease, musculoskeletal disease, diabetes, breast cancer, endometrial cancer, colon cancer, hypertension, and blood lipid profile disorders. Degenerative diseases are chronic diseases that affect a person's quality of life. Overweight, diabetes mellitus and hypertension are degenerative diseases in adolescents. Degenerative diseases are increasingly developing due to decreased physical activity, lifestyle and diet. Degenerative diseases have a high mortality rate and can affect a person's quality of life and productivity (Kelly et al., 2023). Overweight children and adolescents are a risk factor for obesity. The incidence of cardiovascular disease also increases in adulthood (Avrialdo & Elon, 2023).

The solution that can be done to reduce and prevent the number of overweight problems in adolescents which often become a lifelong problem is with "Mindfulness Eating Health Education for Adolescents with Overweight". Several studies have shown that healthy behavior can improve the quality of life related to health (Stephenson et al., 2021). In general, the essence of preventing and overcoming overweight is one of them by improving eating behavior through the concept of Mindfulness Eating and Healthy Eating Literacy (Mustakim et al., 2024). Mindfulness eating is Eating with full awareness, or eating consciously, is the practice of fully paying attention to food, feelings, hunger, and satiety cues. It is about eating consciously, engaging all the senses, and recognizing responses, feelings, and physical cues such as hunger or fullness (R Willard, 2022)

Identification of Problems

Global obesity has nearly tripled since 1975. and 13% are obese. Most of the world's population lives in countries where overweight and obesity kill more people than being underweight. More than 340 million children and adolescents aged 5-19 years were overweight or obese in 2016. Based on the Basic Health Research (RISKESDAS) report in 2018, obesity in the age group <19 years was at 8.9% while in the age group 19-24 years it was 12.1% (Ministry of Health, 2019) .

Childhood obesity is associated with several adverse health outcomes, including type 2 diabetes, dyslipidemia, and hypertension. When obesity occurs in adolescence, the associated health problems persist into adulthood. Although lifestyle changes are considered the cornerstone of childhood obesity treatment, the effectiveness of behavior change programs to combat obesity by promoting healthier diets and active lifestyles is low, limited by dropout rates of 27–73%. Furthermore, there is little evidence of long-term sustainability of weight loss in obese children. Therefore, additional strategies are needed to improve the effectiveness and sustainability of lifestyle changes, including dietary changes, in the management of childhood obesity. Obesity can be prevented by various interventions, one of which is by improving eating behavior through the concept of Mindfulness Eating

Implementation Methodology

Health education with *Mindful eating* for 8 weeks where for 2 weeks there will be 1 meeting per week for 60-90 minutes. *Mindfulness Eating* Health Education provides a guidance process for various interventions that can be applied independently by adolescents and together explore various approaches to find the right combination and solution for adolescents who experience overweight or obesity problems. The choice of this intervention is an intervention that has previously been researched by the basic nursing department team for the last 3 months . The implementation of this community service will be divided into several groups each session.

After the training activities, the management of health education on *mindfulness eating* will be measured every 2 weeks using a questionnaire and *diet diary* . In the 2nd month, the end of the health education on *mindfulness eating* for adolescents with *overweight* and obesity will be evaluated.

Results and Discussion

Table 1 Identification Respondents Based on Age

Information	<i>f</i>	(%)
Age Teenager		
16 years	2	2
17 years	23	41
18 years	31	56
19 years old	1	1
Total	57	100

(Source Data: Data Primary 2024)

Table 1. Above shows that of the 93 respondents, almost half (40.9%) were 16 years old.

Table 2 Identification Respondents Based on Type Sex

Information	F	(%)
Gender		
Boy	15	26
Girl	42	74
Total	57	100

(Source Data: Data Primary 2024)

Table 2. Above shows that of the 93 respondents, the majority (83.9%) were women.

Table 3. Frequency Distribution of Knowledge Before and After *Mindfulness Eating Management and Intervention* in the *Overweight Adolescent Group*

Knowledge category	Knowledge			
	Before		After	
	F	%	F	%
High	2	4	5	8
Moderate	13	22	32	57
Low	42	74	20	35
Total	57	100	57	100

(Source Data: Data Primary 2024)

Mindfulness eating management and intervention in the adolescent group. In the category before the intervention, it was known that the high knowledge category was 2 (4%), moderate knowledge 13 (22%), low knowledge 42 (74%).

Conclusion

Management and intervention of *mindfulness eating* in adolescent groups at SMK IBU showed an increase in the level of knowledge after community service management, it is known that the level of knowledge before management was in the high knowledge category 2 (4%) increased to 5 (8%), moderate knowledge 13 (22%) increased to 22 (57%), low knowledge 42 (74%). decreased to 20 (35%). Mindfulness is defined as "awareness that arises from deliberate attention to the present moment and without judgment". Eating behavior plays an important role in the development of obesity.

Mindfulness has attracted attention as a treatment for obesity by modifying problematic eating behaviors such as excessive caloric intake in response to external cues (e.g., portion size)

(Mustakim et al., 2024) . Studies examining the effects of mindfulness on eating behaviors associated with obesity have focused almost exclusively on adult samples, with only two participants including late adolescents/young adults (R Willard, 2022) .

Several studies have demonstrated the benefits of mindfulness interventions on weight loss in adults . Mindfulness-based interventions have been shown to be effective in improving binge eating, emotional eating, and externalizing eating behaviors and increasing self-control. Mindfulness techniques have been adapted for use with adolescents and preschoolers, and at least 15 reported studies support their appropriateness and acceptability when taught to children or children and parents together (Stephenson et al., 2021) .

Limited research suggests that mindfulness can improve self-regulation in adolescents, particularly in response to stress. However, there is little information on the impact of family-based mindful eating on childhood obesity management or adolescent eating behaviors. Establishing healthy eating behaviors in childhood is essential because it can influence their eating habits and health in adolescence and adulthood. Providing health education can increase knowledge in adolescents. Knowledge is the main foundation in the process of behavior change. Without adequate knowledge, individuals will have difficulty understanding the reasons, benefits, and how to make positive behavioral changes, especially in the context of health and daily life. Providing this knowledge is the basis for changing attitudes so that individuals with sufficient knowledge can increase their awareness. Increased awareness is also expected to shape individual behavior and habits. (Kelly et al., 2023) .

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