

RESEARCH ARTICLE



Obesity Management: Effectiveness of Psychoeducation and Health Promotion on Junior High School Students

Salwa Adzra Tsabithah ¹ , Sherin Anastasia ² , Davila Ramadhani ³ , Nur Alisyah Nurdin ⁴ ,
Esra Esra ⁵ , Tarmizi Thalib ⁶ 

^{1,2,3,4,5} Department of Psychology, Universitas Bosowa, Makassar, Sulawesi Selatan, Indonesia

⁶ Brain & Mental Health Study Center, Universitas Bosowa, Makassar, Sulawesi Selatan, Indonesia

ABSTRACT

Obesity has become a global issue that is a pandemic and requires immediate response. This study aims to analyze the effectiveness of psychoeducation and health promotion programs to reduce obesity in junior high school students. The research method used was quantitative with a one group pretest-posttest study - experimental design. The research subjects totaled 199 people who used purposive sampling techniques and the number of withdrawals was based on the Issac and Michael indicators. The experimental model uses the concept of psychoeducation and health promotion as treatment. Data collection used an obesity understanding questionnaire and analyzed with paired sample t-test. The results showed differences in knowledge and skills of obesity prevention in students before and after the psychoeducation and health promotion program ($p = 0.000$; $p < 0.05$). The effectiveness of this program is based on several factors, including the program model, material content, delivery methods, and sustainable promotional media.

KEYWORDS

Obesity; psychoeducation; health promotion

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1. Introduction

Health is an important foundation for student development and success in school. Both physical and mental health play a significant role in supporting the educational process and maximizing student growth. Adolescents are a group at risk of nutritional problems due to various factors, including high nutritional needs for growth, unbalanced diets, lifestyle, risky behavior, and the impact of the surrounding environment. Therefore, it is important to have knowledge and awareness of student health.

According to a WHO report (2021), one of the global health issues that has been declared a global epidemic and requires immediate action is obesity. Obesity is a

CORRESPONDING AUTHOR Tarmizi Thalib ✉ tarmizi.thalib@universitasbosowa.ac.id 📧 Department of Psychology, Universitas Bosowa, Makassar, Sulawesi Selatan, Indonesia

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condition characterized by an accumulation of body fat exceeding the amount required for normal bodily functions. In Indonesia, the prevalence of obesity among adolescents aged 13–15 years reaches 16%, while among those aged 16–18 years, it stands at 13.5% (Ministry of Health of the Republic of Indonesia, 2019). In these data, the 13-15 age group, which primarily consists of junior high school students (SMP), is notably high. This is also reflected in several studies conducted on junior high school students in Indonesia (Faisal and Alwi, 2025; Kartolo and Santoso, 2022; Wati et al., 2023).

This condition is one of the factors that increase the risk of serious diseases such as diabetes, high blood pressure, heart disease, cancer, and others (Lin and Li, 2021). Every age group has the possibility of experiencing obesity, from children to adults. Several studies show that cases of obesity in the transition phase from adolescence to young adulthood continue to increase (Kelly et al., 2024).

On the other hand, it is important to pay attention to obesity among adolescents because those who are obese have an 80% chance of remaining obese as adults (Mutia et al., 2022). According to the WHO in 2016, 39% of adults aged 18 years and older were overweight, while 13% of them were obese. The majority of the global population lives in countries where overweight and obesity cause more deaths than underweight individuals. In 2016, over 340 million children and adolescents aged 5 to 19 were overweight or obese (Paramita et al., 2023).

The increase in obesity rates can cause serious problems that impact health development in this country. Therefore, steps need to be taken to stop further increases, as obesity in adolescents has adverse consequences, such as the risk of premature death and physical health problems (Murtane, 2021). Various interventions have been implemented to address adolescent obesity, one of which is a school-based nutrition education program. Schools are an ideal setting for intervention, as they have access to a large adolescent population from diverse socioeconomic backgrounds and offer opportunities to expand programs to the community. Many school-based nutrition education programs have been developed and evaluated. Interventions implemented in schools are considered effective in preventing and managing obesity, as they are integrated into school curricula and offer additional benefits to students, such as increased physical activity, reduced body mass index, and improved healthy lifestyle habits.

Therefore, we need psychoeducation and health promotion to prevent obesity. Individuals, families, groups, and communities can all benefit from such psychoeducation (see Figure 1). Psychoeducation is a type of intervention that focuses on teaching participants about important life challenges, helping them find social networks and support to help them cope with these challenges, and helping them develop their own problem-solving skills (Lee & Hancock, 2023).

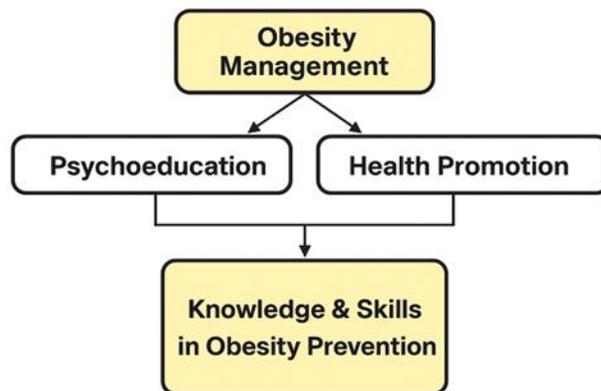


Figure 1. Obesity Management

In addition, the purpose of psychoeducation is to reduce and overcome problems that have arisen. Psychoeducation is an activity aimed at preventing psychological disorders or diseases related to psychological aspects from developing and/or spreading within a group, community, or society. Psychoeducation also includes activities that raise awareness of the environment, especially the family (Demaria et al., 2021).

In supporting efforts to combat obesity, regular health promotion can also be carried out. Health promotion generally refers to any deliberate effort to persuade individuals, groups, or communities to follow certain recommendations (Koelen and Van den Ban, 2023). The components of health promotion consist of: 1) the target of health promotion is the input, 2) the process is the deliberate effort to influence others, and 3) the output is health behavior that aligns with the input in the health promotion initiative.

Health behaviors or actions to maintain and improve overall health are the expected outcomes (effects) of health promotion programs (Edelman and Kudzma, 2021). These health promotion media can take the form of e-modules, pamphlets, posters, and videos. These media serve as learning resources that incorporate instruction within the students' environment, motivating them to learn, particularly in the context of addressing obesity issues.

Based on the above description, this study was conducted with the aim of analyzing the effectiveness of psychoeducation and health promotion in efforts to combat obesity among junior high school students. The scope of this study focuses on junior high school students with obesity, psychoeducation, and health promotion as the objects of study. Through this study, it is hoped that it will be able to 1) contribute theoretically to the subject and object of study, particularly within the context of psychology and health, 2) design a treatment model that can be applied in the field practice of the Psychology

Faculty, and 3) serve as a contribution to the Asta Cita program, which is a National Priority in the RPJMN 2025-2029, particularly in the areas of human resource development, health, and education.

2. Literature review

2.1. Obesity in Adolescents

Obesity is the excessive accumulation of body fat that impairs normal bodily functions (WHO, 2021). Adolescents are vulnerable to obesity due to high nutritional needs, unbalanced diets, sedentary lifestyles, risky behaviors, and environmental factors.

2.2. Prevalence of Obesity

The prevalence of adolescent obesity in Indonesia is quite high, at 16% for ages 13–15 and 13.5% for ages 16–18 (Ministry of Health of the Republic of Indonesia, 2019). Other studies also support the high rate of obesity among junior high school students (Faisal & Alwi, 2025; Kartolo & Santoso, 2022; Wati et al., 2023). Globally, over 340 million children and adolescents aged 5–19 are overweight or obese (WHO, 2016; Paramita et al., 2023).

2.3. Impact of Obesity

Obesity is associated with various chronic diseases such as diabetes, hypertension, heart disease, and even cancer (Lin & Li, 2021). Obese adolescents have an 80% risk of remaining obese into adulthood (Mutia et al., 2022), leading to long-term health burdens and increasing the risk of premature death (Murtane, 2021).

2.4. School-Based Interventions

Schools are a strategic means for obesity prevention interventions. School-based nutrition education has been proven to increase physical activity, lower body mass index, and improve students' healthy lifestyles (Murtane, 2021).

2.5. Psychoeducation

Psychoeducation is an intervention that teaches participants to understand life challenges, find social support, and develop problem-solving skills (Lee & Hancock, 2023). Its purpose is to prevent the development of psychological disorders and increase awareness among families and the environment (Demaria et al., 2021).

2.6. Health Promotion

Health promotion is a systematic effort to influence the behavior of individuals and groups so that they adopt a healthy lifestyle (Koelen & Van den Ban, 2023). The media used includes e-modules, pamphlets, posters, and videos, which can increase students' motivation in preventing obesity (Edelman & Kudzma, 2021).

Table 1. Psychoeducation Procedure

| Activity | Objective | Duration |
|---|--|------------|
| Opening | Aims to provide briefing and psychoeducation mechanism. The opening includes: <ol style="list-style-type: none"> 1. Welcome 2. Explaining the mechanism of rules during psychoeducation activities | 15 minutes |
| Pre-test | The pre-test is designed to measure participants' understanding of the material to be delivered by the speaker. The pre-test content contains a basic understanding of what obesity health is, the causes of obesity, the effects of obesity, and how to prevent obesity. | 5 Minutes |
| Material | Providing material on obesity health, which includes: <ol style="list-style-type: none"> 1. Definition of obesity 2. Causes of obesity 3. Effects of obesity 4. Diet for people with obesity 5. Prevention of obesity 6. How to reduce weight 7. Deaths due to obesity | 50 Minutes |
| Question and Answer Session and Post-test | After the material was given, students were given the opportunity to ask questions. Then proceed to fill in the post-test which aims to measure again, the extent of the participants' understanding after being given the material. This is also a form of feedback for participants whether the provision of psychoeducation has a positive impact on participants or not. | 15 Minutes |
| Games | Educational games help students learn new ideas or have a more fun approach to material and interactive. | 5 Minutes |
| Closing | Closing a series of psychoeducation activities, where the closing agenda contains: <ol style="list-style-type: none"> 1. Giving rewards 2. Providing refreshments 3. Photo session | 10 minutes |

3. Methods

The method used in this research is quantitative with experimental design. The experimental design used, namely One Group Pretest-Posttest Study. The experimental model provided in the form of psychoeducation and health promotion. The subjects of this study consisted of 40 junior high school students taken from two schools, namely SMPN 53 Makassar and Semen Tonasa I Private Junior High School. The sampling technique used purposive sampling with the criteria of 12-14 years old and junior high school students. The determination of the number of samples was based on the Issac and Michael sample criteria table.

The research implementation consisted of two parts of psychoeducation and health promotion. Regarding psychoeducation activities, several implementation procedures were carried out, which can be seen in the [Table 1](#). Meanwhile, related to health promotion, sustainable learning media were provided to students in the form of e-modules. The media can be accessed online on the page bit.ly/emodulObesity.

The data collection technique used the obesity understanding questionnaire. The questionnaire was administered in a pre-posttest scheme. The data obtained were then tabulated and cleaned. The results obtained were then analyzed using the paired sample t-test method with the JASP application version 0.19.2.

4. Results

4.1. The most authors public policy in Islamic education

This psychoeducation program was held with the theme "Obesity Health Promotion." The offline psychoeducation program was held at SMPN 53 Makassar and SMP Swasta Semen Tonasa I, attended by around 199 students (see [Figure 2](#)). The activity was conducted to provide adolescents with knowledge about obesity health. The materials covered what obesity is, the characteristics of individuals with obesity, the dangers of obesity, its impacts, and methods to address obesity.



Figure 2. Implementation of Psychoeducation and Health Promotion

Based on the results of the analysis before and after the program was implemented, it was found that there was an improvement in students' knowledge and skills related to obesity. This can be seen in the pre-test mean score of 5.53 and the post-test mean score of 6.48. Regarding the effectiveness of the activities, the p-value was 0.000 ($p < 0.05$) (see [Table 2](#)). These results indicate that there is a significant difference in outcomes before and after the implementation of the psychoeducational and health promotion program for junior high school students. The changes in knowledge and skills in preventing obesity demonstrate that the program implemented was effective.

Table 2. Results of Paired Sample T-Test Analysis

| | Mean | N | Std. Deviation | Std. Error Mean | t | Df | p |
|-----------|------|----|----------------|-----------------|--------|----|-------|
| Pre test | 5.53 | 40 | 1,867 | 0,295 | | | |
| Post test | 6.48 | 40 | 1,617 | ,256 | -4,694 | 39 | 0,000 |

5. Discussion

The results of this study are consistent with several previous studies, such as (Fatmasari et al., 2024; Latifah et al., 2024). However, the novelty and difference in this study lies in the implementation of the research using the concept of psychoeducation, contemporary content, more attractive methods of delivering psychoeducation and health promotion, and sustainable learning media through e-modules.

At the time of psychoeducation and health promotion, the students did not have a deep understanding of what obesity is. When the program began, we asked the students if they knew what obesity was. Most of them answered that obesity was a person who was overweight. After asking them about their views when they heard the word obesity, we began to provide material about obesity.

The content begins with an explanation of obesity, which is a condition characterized by excessive accumulation of body fat. After clearly defining obesity, we proceed to the next stage of the material by discussing the causes of obesity, such as consuming high-calorie foods and beverages, lack of physical activity, and genetic factors. We also provide examples of foods that contribute to obesity, such as fried foods, fast food, and sugary foods. We also discuss the impacts of having an excessive body weight, such as mental health issues, high blood pressure, insulin disorders, and respiratory problems. After explaining the material in detail, we open a question-and-answer session with the students, who are enthusiastic about asking questions. According to Bender (2023), presenting material in an engaging manner and fostering open discussions greatly aids students in their learning process.

The results of this psychoeducation and health promotion program can be considered successful. This is because the students were able to gain a deep understanding of what obesity is. At the end of the session, we asked questions about obesity, such as the effects of obesity, and one of the students raised his hand and answered the question correctly. In addition to asking questions, we also asked the students about their conclusions regarding the material on obesity that we had previously presented. Some students were able to summarize the material well, which demonstrates that after the psychoeducation session, the students have understood the material related to obesity.

If students answer correctly and appropriately, we will give them a prize. In addition to being a form of appreciation, giving prizes is intended to reinforce stimulation or information to students (Yusuf and Vianti Mala, 2022). After conducting the material presentation and question and answer session, we conducted ice breaking activities and games, namely light exercises, which are one of the physical activities that can prevent obesity. They can express their opinions by summarizing the content of the material related to obesity that we presented and are able to ask questions that can further deepen their understanding of obesity. Such ice-breaking activities and games are beneficial as a form of relaxation and to enhance the effectiveness of the material that has been presented (Fitria, 2023).

The implementation of this psychoeducation and health promotion program is expected to provide useful contributions. These benefits include theoretical studies, the creation of positive treatments for the community, and the implementation of government policies related to improving human resources, health, and education. Several evaluation results and constructive suggestions can be developed in future programs, such as the creation of health promotion videos and extending the duration of psychoeducation.

6. Conclusion

This study shows that the obesity psychoeducation and health promotion program that includes providing education related to the causes, effects and skills to prevent obesity is effective in expanding students' basic information and skills on the importance of preventing obesity. The advantages of the program provided to junior high school students in this study, namely its implementation using the psychoeducation model, contemporary material content, more attractive psychoeducation and health promotion delivery methods and sustainable learning media.

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

ORCID

Salwa Adzra Tsabitah  <https://orcid.org/0009-0003-0924-4159>

Sherin Anastasia  <https://orcid.org/0009-0001-4603-2003>

Davila Ramadhani  <https://orcid.org/0009-0003-6205-5138>

Nur Alisyah Nurdin  <https://orcid.org/0009-0007-4186-8470>

Esra Esra  <https://orcid.org/0009-0007-4685-8044>

Tarmizi Thalib  <https://orcid.org/0000-0003-0825-8703>

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