



CENTRAL OBESITY DETECTION AND WEIGHT MANAGEMENT

Gita Dwi Prasasty^{1*}, Chairil Anwar¹, Dalilah¹, Desi Oktariana², Nia Savitri Tamzil³, Evi Lusiana³, Dwi Handayani¹

¹Parasitology Section of the Medical Faculty Universitas Sriwijaya Palembang

²Clinical Pathology Section of the Medical Faculty Universitas Sriwijaya Palembang

³Pharmacology Section of the Medical Faculty Universitas Sriwijaya Palembang

Email: *gdprasasty@gmail.com

ABSTRACT

Obesity is a multifactorial disease that occurs due to excess fat tissue that can interfere with health. It is estimated that obesity will reach more than 50% in developed countries. In Indonesia, the prevalence of obesity in people over 18 years old is 21.8%. Environment or diet is one of the causes of obesity. Community service activities were carried out on October 18, 2021, in Kuto Batu Village, Palembang, with the main target being community cadres with a minimum of 30 participants. Based on the pre-test results conducted on 32 participants, 60% already had a good knowledge of obesity and central obesity and weight management. However, unfortunately, more than half of the participants (65%) were overweight and even obese type 2, and 12% of participants were underweight, while the rest were normal. The results of the blood pressure examination showed that 62% of the participants had blood pressure greater than or equal to 130/80 mmHg. The data also showed that most of the overweight and obese participants had above-normal blood pressure. The same results in the participant's abdominal circumference as many as 62% had central obesity.

Keywords: Obesity, Weight Management



INTRODUCTION

Obesity is a multifactorial disease that occurs due to excess fat tissue that can interfere with health. In moderate obesity, regional fat distribution is an essential indicator of metabolic and cardiovascular changes. Therefore, central obesity is closely related to metabolic syndrome and vascular diseases such as stroke and coronary heart disease. Obesity also impacts a person's future socioeconomic life because prevention is more cost-effective than cure.¹

In modern times, overweight and obesity have become an epidemic replacing infectious diseases, especially in urban areas. In 2014, more than 1.9 billion adults over 18 years were overweight, and more than 600 million people worldwide were obese. It is estimated that obesity will reach more than 50% in developed countries. In Indonesia, the prevalence of obesity over the age of 18 years is 21.8%.^{1,2}

Environment or diet is one of the causes of obesity. Based on riskesdas data regarding the analysis of individual food consumption of the Indonesian people, namely, 40.7% of people consume fatty foods, 53.1% of sweet foods, 93.5 less consumption of vegetables and fruits, and 26.1% less physical activity.^{1,3}

Weight loss can reduce blood pressure in overweight normotensive and hypertensive individuals, reduce serum triglycerides, increase HDL cholesterol, reduce total and LDL cholesterol, reduce blood glucose levels in overweight and obese individuals without diabetes, and reduce blood glucose and HbA1c levels in obese individuals. diabetetic individuals. Ultimately, weight loss can significantly improve health in comorbid obesity. reduce the development of type 2 diabetes mellitus and cardiovascular disease.^{1,4}

Various obesity treatment programs recommended by health workers are not able to provide results for the community. Moreover, the increasing number of commercial impressions about products that promise to have an immediate effect on obesity makes people turn away from health programs that should be carried out. However, the various products are not yet precise and do not have scientific evidence and research.

Therefore, it is necessary to have a natural movement from health workers and various groups of community activities. Community leaders and cadres must come together and know more about weight regulation and the amount of morbidity with obesity so that the prevention and treatment of obesity can be more comprehensive in the hands of various parties.

Based on the description above, it is necessary to carry out an activity that aims to increase awareness of the dangers of obesity and central obesity through weight loss and maintenance strategies. The strategy consists of regulating diet, doing physical activity, behavioral therapy, and pharmacotherapy. This community service activity will focus on education on diet regulation, physical activity, and behavior.

People who are fully aware and able to recognize obesity and central obesity for themselves will impact knowledge, attitudes, activities, and behavior, both for themselves and those closest to them. It is hoped that this activity can indirectly help the community reduce the incidence of obesity and ultimately the prevalence of metabolic syndrome.

METHODS

On October 18, 2021, community service activities were conducted in Kuto Batu Village, Palembang, with around 32 consisting of Kuto Batu sub-district staff and community cadres. The activity aims to provide knowledge about the dangers of obesity, pre-metabolic syndrome disease, metabolic syndrome, cardiovascular disease, early detection of obesity and central obesity, simple checks to detect obesity and central obesity, and knowledge of weight management. The activity begins with a pre-test and closes with a post-test evaluation after counseling. This activity is divided into three sessions, namely counseling, question and answer, discussion, and examination and training of participants.

RESULT AND DISCUSSION

Extension activities are carried out by explaining directly, and participants are guided through booklets that have been distributed. Counseling is divided into four sessions. The first session was in the form of filling out a pre-test with ten questions. Then it was continued by giving material by the head of community service regarding obesity and central obesity and weight management. The instructor also provides examples of calculating Body Mass



Index (BMI) and the number of calories needed by the body. The presentation closed with weight management materials and examples of activities that can be done at home.

Picture A and B. Community service activities

The next session is a discussion. As many as four village cadres actively asked about obesity and central obesity and weight management. They think that daily activities can be counted as physical exercise. However, based on the literature, physical activity and physical



exercise have different multipliers, so they cannot be considered physical exercise. Participants also asked a lot of various snacks that they thought had low calories but the opposite. Based on the results of discussions and questions and answers, most participants still did not know that certain foods have high calories and cause obesity and central obesity, such as sweet drinks, fried foods, biscuits, cakes, and daily side dishes. The last session was in the form of answering the post-test and suggestions for the counseling activities that had taken place. The post-test results showed that counseling was able to increase their knowledge up to 90%.⁵

The training, as well as a BMI examination, was carried out on all participants who attended. The examinations carried out included recording age, calculating weight, height, and blood pressure. They also learn how to calculate that so they can do that at home. If the participant has difficulty remembering, it can be seen again in the booklet.

Based on the results of the pre-test conducted on 32 participants, it was found that more than half (60%) of the participants already had good knowledge about obesity and central obesity and weight management. However, unfortunately, more than half of the participants (65%) were overweight and even obese type 2, and 12% of participants were underweight, while the rest were normal. In another study, it was stated that the obesity rate in adolescents reached 24%. Even in another study, it was stated that obesity as one of the criteria for metabolic syndrome was found in 6.5% of junior high school students.^{6,7}

The results of the blood pressure examination showed that 62% of the participants had blood pressure greater than or equal to 130/80 mmHg. The data also showed that most of the overweight and obese participants had above-normal blood pressure. The same results in the participants' abdominal circumference; as many as 62% had central obesity. This is following research conducted by Teguh et al. that obese people risk developing grade 1 hypertension 1.6 times higher than people with normal weight. The mechanism of hypertension caused by obesity has long been known but not yet clear. Most of the researchers focus on the pathophysiology of three things. The main causes are disorders of the autonomic system, insulin resistance, and abnormalities in the structure and function of blood vessels. These three things can influence each other with others.^{1,8}

the participants are very enthusiastic about carrying out this community service activity and hope to return to participating in counseling and examination activities with different themes. The event was officially closed, and the participants, the village head, and the committee took pictures together to document the activities.

CONCLUSION

Although most of the participants had good knowledge about obesity, central obesity, and weight management, many were still obese and hypertensive (62%). Continuous activities are needed to continue to monitor cadres and the community so that they have a good lifestyle and diet.



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