

The Importance of Nutritionists Role in Educating the Community Regarding the Implementation of a Healthy and Balanced Weight-Loss Diet

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ABSTRACTS

Obesity is still one of the nutritional problems among Indonesians today. People then want to normalize their nutritional status by adopting certain weight-loss diets. The problem is, recently, some weight-loss diets that have emerged in the community are not following nutritional principles. People with less nutritional knowledge can implement this diet, which will endanger health. The role of nutritionists is very important in providing education to the public about how to carry out a healthy and nutritious weight-loss diet to normalize their nutritional status. This paper discuss the importance role of nutritionists in educating the public regarding the implementation of a healthy and balanced weight-loss diet in the middle of many mistaken types of current weight-loss diets in Indonesia. The study was descriptive and was conducted in Bandung, March 2021. Appropriate nutritional education is the key success to introduce the community to a healthy and balanced diet. Also, other factors determine such as the active role of other health stakeholders in carrying out activities to change attitudes and practices of public health and nutrition.

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1. Introduction

Individual and community health is influenced by nutritional intake. Nutritional intake is influenced by the quality and quantity of food consumed or often referred to as diet. Optimal nutrition is essential for human growth and development. Good nutrition will make the body more protected from infections and chronic diseases or non-communicable diseases related to nutrition so that it can improve work performance and health. Non-optimal nutrition can adversely affect health, which can increase the risk of infection and chronic or non-communicable diseases related to nutrition such as diabetes mellitus, cancer, cardiovascular disease, etc. which are the main causes of death in Indonesia⁽¹⁾.

Risikesdas (2018)⁽²⁾ data shows that the prevalence of obesity (BMI \geq 27.0) in the adult category (age > 18 years) in Indonesia is 21.8%. Obesity can be caused by genetic factors and lifestyle changes such as poor diet and physical activity⁽³⁾. Based on Risikesdas data on the analysis of individual food consumption surveys⁽⁴⁾, about 40.7% of Indonesians consume fatty foods, 53.1% consume sweet foods, 93.5% consume fewer vegetables and fruit, and 26.1% lack physical activity. Obesity is a risk factor for various metabolic and degenerative diseases such as cardiovascular disease, diabetes mellitus, cancer, and others⁽⁵⁾.

Based on the data above, obesity is still one of the nutritional problems among Indonesians today. However, the tendency of some people is now starting to focus on their nutritional status. People who feel that they do not have a normal nutritional status, try to normalize their nutritional status by one of the ways through adopting certain weight-loss diets. The problem is, recently, some weight-loss diets that have emerged in the community are not in accordance with nutritional principles. People with less nutritional knowledge can implement this diet, which will endanger health. The role of nutritionists is very important in providing education to the public about how to carry out a healthy and balanced weight-loss diet in order to normalize their nutritional status.

Prevention of these nutritional problems requires the socialization of *Pedoman Gizi Seimbang* or Balanced Nutrition Guidelines which can be used as a guide for eating, physical activity, clean living, and monitoring body weight regularly to maintain a normal weight. In an effort to optimize the delivery of Balanced Nutrition messages to the community, appropriate and community-based communication, information and education are needed⁽⁶⁾.

Pedoman Gizi Seimbang or Balanced Nutrition Guidelines are daily food consumption that must contain nutrients in the type and amount (portion) according to the needs of each person or age group. Food consumption must pay attention to the 4 pillars of food diversity, clean living habits, physical activity, and monitor body weight regularly to maintain normal body weight.

This change in behavior is strongly influenced by the implementation of socialization, education, training, and outreach to the community as well as counseling activities, demonstration demonstrations, and *Gizi Seimbang* practices. The success of these activities is largely determined by the role of the Government at both the central and regional levels and the active participation of the community. Success is also influenced by factors of manpower, facilities, resources, methods, media, and sustainability^(1,6). The purpose of this paper is to discuss the important role of nutritionists in educating the public regarding the implementation of a healthy and balanced weight-loss diet.

2. Literature Review

2.1 Obesity⁽⁷⁾

Obesity is the accumulation of excess triacylglycerol in fat tissue due to excess energy intake compared to its use. Obesity occurs when in a period of time more calories are entered through food than are used to support the body's energy needs, furthermore the excess energy will be stored as triglycerides in fat tissue. To find out the nutritional status, it can be seen from the BMI (Body Mass Index) which is calculated by means:

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height}^2 (\text{m}^2)}$$

Figure 1 How to calculate BMI

Then, the calculated BMI results are categorized into table 1 below regarding the classification of BMI according to WHO. The obesity category is an individual who has a BMI \geq of 25.0 kg/ m².

Table 1 Classification of BMI according to WHO

Body Mass Index	Classification
< 18.5	Under Weight
18.5 - 24.9	Normal Weight
25 - 29.9	Over Weight
30.0 - 34.9	Obesity Class 1
35.0 - 39.9	Obesity Class 2
40 or above	Obesity Class 3

2.2 Pedoman Gizi Seimbang^(1,6)

Pedoman Gizi Seimbang aims to provide guidelines for daily food consumption and healthy behavior based on the principles of consumption of a variety of foods, clean living habits, physical activity, and regular weight monitoring in order to maintain normal body weight. The Principle of *Gizi Seimbang* consists of 4 (four) Pillars which are basically a series of efforts to balance the nutrients out and the nutrients that come in by monitoring body weight regularly. The Four Pillars are:

a. Consuming a variety of foods

There is no single type of food that contains all types of nutrients the body needs to ensure growth and maintain its health, except breast milk (ASI) for newborns up to 6 months of age. Example: rice is a major source of calories, but is poor in vitamins and minerals; vegetables and fruits are generally rich in vitamins, minerals, and fiber, but poor in calories and protein; fish is a major source of protein but few calories.



Figure 2 *Tumpeng Gizi Seimbang* Daily Consumption Guide

Apart from the diversity of food types, it also includes a balanced proportion of food, in sufficient quantities, not excessive, and carried out regularly. Dietary recommendations in recent decades have taken into account the proportion of each food group according to their supposed needs. For example, it is currently recommended to consume more vegetables and fruits than previously recommended. Likewise, the amount of food containing sugar, salt, and fat which can increase the risk of some non-communicable diseases is recommended to be reduced. Recently drinking adequate amounts of water have been included in the component of balanced nutrition because of the importance of water in metabolic processes and in preventing dehydration.

b. Get used to clean living habits

Infectious diseases are one of the important factors that directly affect a person's nutritional status. A person suffering from an infectious disease will experience a decrease in appetite so that the amount and type of nutrients that enter the body decreases. Conversely, in the state of infection, the body needs more nutrients to meet the increased metabolism in people who suffer from infection, especially when accompanied by heat. In people who suffer from diarrhea, it means that they experience a loss of nutrients and fluids that will directly worsen their condition. Likewise, someone who is suffering from malnutrition will have the risk of contracting infectious diseases because, in a state of malnutrition, a person's immune system decreases, so that germs are easier to enter and develop. These two things indicate that the relationship between malnutrition and infectious diseases is a reciprocal relationship.

A culture of clean living habits will prevent a person from being exposed to sources of infection. For example, 1) always wash hands with soap and clean running water before eating, before giving breast milk, before preparing food and drinks, and

after defecating and urinating, will prevent contamination of hands and food from germs including typhus and dysentery; 2) closing the food served will prevent the food from being infested with flies and other animals as well as dust that carries various germs; 3) always cover the mouth and nose when sneezing, so as not to spread germs; and 4) always use footwear to avoid worms.

c. Doing physical activity

Physical activity which includes all kinds of body activities including sports is an effort to balance the expenditure and intake of nutrients, especially the source of energy in the body. Physical activity requires energy. In addition, physical activity also accelerates the metabolic system in the body, including the metabolism of nutrients. Therefore, physical activity plays a role in balancing the nutrients that leave and enter the body.

d. Monitor body weight (BW) regularly to maintain a normal body weight

For adults, one indicator that shows that there has been a balance of nutrients in the body is the achievement of a normal body weight, which is a bodyweight that is suitable for their height. This indicator is known as the Body Mass Index (BMI). Therefore, monitoring normal weight is something that must be part of the "Lifestyle" with "Balanced Nutrition", to prevent deviation of weight from normal weight, and if there is a deviation, steps can be taken to prevent and handle it immediately. What is meant by normal body weight for adults if $BMI = 18.5-25.0 \text{ kg} / \text{m}^2$.

The behavior of eating nutritionally balanced food can be disrupted by the activity pattern of the adult age group at this time. For example, tight working hours, a short time at home, mothers working outside the home, increased risk of exposure to pollution and unsafe food, availability of various ready-to-eat and ready-to-eat foods, and ignorance of nutrition, which causes this age group to tend to be light or relaxed. (sedentary life), which one of the results is unbalanced and unhygienic food consumption. Therefore, attention to Balanced Nutrition behavior needs to be increased to achieve a healthy, active, and productive lifestyle. The general message of balanced nutrition applies to adults from all walks of life in a healthy condition, and to maintain a healthy life. Here are 10 general messages on balanced nutrition:

- 1) Be grateful and enjoy a variety of foods
- 2) Eat lots of vegetables and enough fruits
- 3) Get used to eating side dishes that contain high protein
- 4) Get used to eating a variety of staple foods
- 5) Limit consumption of sweet, salty, and fatty foods
- 6) Get used to breakfast
- 7) Get used to drinking enough and safe water
- 8) Get used to reading labels on food packaging
- 9) Wash hands with soap under clean running water
- 10) Get enough physical activity and maintain a normal body weight

2.3 Gerakan Nusantara Tekan Angka Obesitas (GENTAS)⁽⁵⁾

The message of the *Gerakan Nusantara Tekan Angka Obesitas* (GENTAS), namely First, Adjust the Diet, consisting of:

- a. Using a T-model dinner plate, which is 2 times the vegetable from the source of carbohydrates
- b. The amount of food sources of protein is equivalent to the number of food sources of carbohydrates
- c. Fruit must be at least equal to the number of carbohydrates or protein. Choose foods that you enjoy but still pay attention to the amount, type, and schedule.

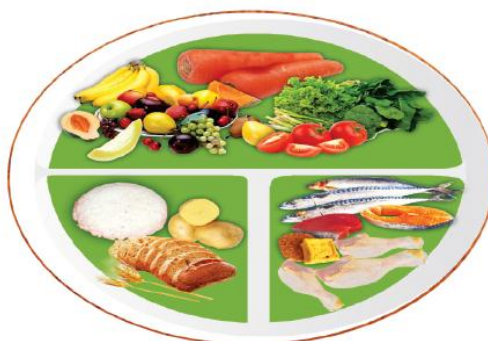


Figure 3 Plate model T

The second is Active Moves; be active every day according to the ability and condition of the body. For the initial stage, you can start with a brisk walk or walk for 10 minutes and increase the duration gradually. After reaching 30 minutes it can be replaced with other activities such as cycling, swimming, aerobic exercise. The third is to Enjoy your day; such as recreation, doing hobbies, vacations, worship, and getting enough sleep.

2.4 Some Weight-loss Diets That Are Not In Accordance With Viral Nutrition Rules in Indonesia

Call it the Obsessive Corbuzier's Diet (OCD) diet, this diet suggests breakfasting or stopping breakfast. In addition, there is also the term eating window which means you can eat whatever you normally eat (don't become greedy suddenly) for 8 hours, 6 hours, or 4 hours a day (without breakfast at least 3 hours after you wake up). Fasting here means that there is no calorie intake during your fasting period. However, this means you can still drink water, tea, or anything that doesn't contain calories. Even candy is fine as long as there isn't much (Low-calorie counts of 0.5 or 0 calories such as fruit, milk, etc. are not allowed).

Recently, an artist published the book *The Journey of #FitTyaAriestya*. In his book, Tya mentions that vegetables are one of the foods that can hinder weight-loss. In addition, Tya also wrote that every day she only eats 2 tablespoons of rice, melons, and egg whites. Then she takes a multivitamin and omega 3. If added up, Tya consumes less than 500 calories a day, which is a type of very-low-calorie diet or SRE diet (Very Low Energy).

2.5 Nutrition Education

Nutrition education is a continuous process to increase knowledge about nutrition, form attitudes and behaviors for healthy living by paying attention to daily dietary patterns and other factors that affect food, as well as increasing a person's health and nutritional status. The purpose of providing nutrition education is to encourage positive behavior change related to food and nutrition. One form of nutrition education activities is counseling⁽⁸⁾. The steps in conducting outreach according to Maulana (2007)⁽⁹⁾ are: (1) Recognizing the problem, the community, and the area; (2) Determining extension priorities; (3) Determining extension objectives by considering clear, realistic (achievable) and measurable goals; (4) Determining the target of extension; (5) Determine the content of the extension; (6) Determine the extension method to be used; (7) Choosing teaching aids or extension media; (8) Prepare an assessment plan (evaluation); (9) Prepare a work plan or implementation plan.

3. Materials and Methods

This was a narrative descriptive study comparing the current issue about weight-loss diet with the theoretical literature. The study was conducted in March 2021 in Bandung city. The weight-loss diet discussed in this study were the Obsessive Corbuzier's Diet (OCD) diet and Tya Ariestya Diet.

4. Results and Discussion

It is widely known that there is an effect of nutrition education on balanced nutrition behavior. Nutritional knowledge is an important factor that influences the nutritional behavior of individuals, families, and communities⁽¹⁰⁾. Practices that are based on knowledge will last a long time so it is important for children to obtain nutritional knowledge from various sources such as schools, print media, and electronic media⁽¹¹⁾. The attitude of nutrition is a person's tendency to agree or disagree with a statement submitted related to food and nutrition⁽¹¹⁾. The nutrition education provided is expected to foster a better attitude towards nutrition. Practice is a person's response to a stimulus. After a person knows the stimulus or object, then makes an assessment or opinion on what is known, the next process is expected to carry out what he knows or acts on⁽¹²⁾.

When we discuss the OCD diet which suggests stopping breakfast, this is certainly not good because the body's ability to do a good job will decrease. Not having breakfast causes blood sugar levels to decrease (hypoglycemia). People who don't eat breakfast are likely to experience a decrease in their physical and mental condition (fatigue)⁽¹³⁾. The term eating window means that you can eat anything at certain times, this is not in accordance with nutritional principles because a good meal is well scheduled and with good composition and portion.

The Tya Ariestya diet, which has been busy lately, is not in accordance with the general message of balanced nutrition which calls for eating lots of vegetables, especially GENTAS 'message which recommends 2 times the consumption of vegetables from food sources of carbohydrates. Adequate vegetable consumption will reduce the risk of having difficulty defecating (BAB) and obesity⁽¹⁴⁾. Scientific research reveals that in vegetables there are phytochemicals and phytonutrients that are beneficial to the human body⁽¹⁵⁾. A meta-analysis study by Dauchet et al., (2015)⁽¹⁶⁾ found that the risk of stroke decreased by 3% after adding

1 serving of vegetables, so it can be concluded that vegetable consumption reduces the risk of stroke. In addition, 31% of ischemic heart disease, 20% esophageal cancer, 19% ischemic stroke, 19% gastric cancer, and 12% of lung cancer worldwide can be prevented by increasing fruit and vegetable intake to the minimum daily intake recommended by WHO⁽¹⁷⁾.

PERGIZI PANGAN Indonesia (2021)⁽¹⁸⁾ issued a Press Release #FitTyaAriesTya Book Review regarding the Position of Indonesian Food PERGIZI on Vegetable Consumption and Healthy Ways to Control Body Fat, that introducing vegetable flavors to children should be done by parents from an early age. It is even recommended during pregnancy and breastfeeding to consume a variety of vegetables that are sufficient and safe. We recommend that adolescents and adults who do not like vegetables are expected not to weaken education and nutrition messages about the need to eat vegetables as recommended by *Peraturan Menteri Kesehatan Republik Indonesia Nomor 41 Tahun 2014 tentang Pedoman Gizi Seimbang*. It is feared that the existence of information from public figures or influencers that do not conform to theory and scientific evidence as well as regulations on the recommendation to consume vegetables will change people's perceptions of government programs to increase community vegetable consumption. Government agencies authorized in the field of health and related health professional organizations need to work together to prepare guidelines for holistic nutrition and health care in evidence-based SRE (Very Low Energy) diet services. In addition, it is hoped that this position will reach the community by the media and influencers so that people are more alert and careful in choosing ways to control body composition and live a healthy life according to the uniqueness of their problems and to consult beforehand with professionals in their fields.

Based on the explanation above, the weight-loss diets that are not good if applied by the community will be very detrimental to health. In order to prevent this from happening, nutritionists who do have competence in the field of nutrition need to be more active in providing education, socialization, education regarding the implementation of a healthy and nutritionally balanced weight-loss diet. Technical things that nutritionists can do such as holding outreach activities, due to the current condition of the Covid-19 pandemic, education can be done through online activities such as nutrition webinars. In addition, in today's digital revolution era, nutritionists can take advantage of their website and social media to create content about nutrition in the form of podcasts, poster images, and educational videos about nutrition and collaborate with influencers in the media. question so that the coverage of the weight-loss diet campaign that is good and nutritionally balanced can reach the wider community. In addition, it is no less important to see that people tend to trust more general practitioners (who are not experts in the field of nutrition) as well as more trust in clinical nutrition specialists, the role of nutritionists here is very important in order to convince the general public that nutritionists are also is an expert in the field of nutrition, his competence is clear and his profession can be trusted and can be accounted for. In fact, it is not appropriate to compare nutritionists with clinical nutrition specialists, because each has different main duties and functions, namely nutritionists engaged in preventive (preventive) and promotive (improvement) nutrition, while clinical nutrition specialists tend to more in the realm of curative or something to do with patient treatment.

5. Conclusions

In order for educational activities, outreach, education and training, counseling, counseling, demonstration demonstrations, and practice of a Healthy Weight-loss Diet and

Balanced Nutrition to be implemented optimally, it is necessary to have competent nutritionists with clear duties and responsibilities in carrying out these activities. Besides, this cannot be separated from the importance of the active role of other health stakeholders in carrying out activities to change attitudes and practices of public health and nutrition.

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