

DIETARY KNOWLEDGE, BODY IMAGE, AND DIETARY PRACTICES IN 18-20 YEAR OLD YOUNG WOMEN

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Abstract

Young women have several methods to maintain their weight including weight loss diet. In this method, they will choose their foods carefully. Dietary knowledge and body image contribute to their dietary practices, especially on weight loss diet. The aim of this research was to analyze the correlation of dietary knowledge and body image as well as dietary practices in 18-20 year old young women. A cross sectional research was performed in 344 young women aged between 18 to 20 years old as the students of Politeknik Negeri Jember, East Java, Indonesia. This study used a probability sampling technique. Questionnaires were used as the instrument to collect the data of dietary knowledge which consisted of 15 questions on the definition, methods, and effects of weight loss diet and of body image which consisted of 10 questions of favorable and unfavorable questions. Subsequently, Food Frequency Questionnaire (FFQ) was used to obtain the data on dietary practices. Collected data were analyzed by using Chi square test with $\alpha=0.05$. The results indicated that 189 respondents (54.9%) carried out appropriate or healthy dietary practices while as many as 155 respondents (45.1%) had unhealthy ones. In addition, a number of 154 respondents (44.8%) had good dietary knowledge, 154 respondents (44.8%) had sufficient dietary knowledge, and 36 respondents (10.5%) had insufficient dietary knowledge. Regarding with body image, 174 respondents (49.4%) showed positive body image while 170 respondents (50.6%) had negative body image. There was no correlation between dietary knowledge and dietary practice ($p = 0.055$) and there was significant correlation between body image and dietary practice ($p = 0.001$). Dietary practices is evidenced to have a correlation with body image, on the contrary, it is insignificantly correlated with dietary knowledge. Young women should perform healthy dietary practices based on their nutrition needs instead of relied solely on the perception of body image.

Keywords: dietary practice, dietary knowledge, body image.

Presenting Author's biography



Puspito Arum is currently a lecturer in the Department of Clinical Nutrition Politeknik Negeri Jember since April 2013. She was born in Semarang on 20th May, 1986. She is a graduate of Universitas Diponegoro with a major of Nutrition Science in her undergraduate and master degree.

BACKGROUND

Adolescence is a time of change in every human body. Relative growth on children occurs at the same speed and they suddenly become teenagers. Teenagers have a strong emphasis on appearances which one of them is in the shape of the body [1]. Entering adolescence phase, children try to change their appearances in order to make them attractive. The concerns on the appearance and ideal body shape lead to obsessive practice such as weight loss diet. As a consequence, a lot of young women control their weights by carrying out diet and exercises to have ideal body shape and body image [2].

Based on a study performed on the students in Massachusetts, the result showed that approximately 77% of young women from 33,393 respondents performed diet to lose their weights [3]. Weight loss dietary practices performed by a variety of young women with only 21.5% of them practiced healthy diet, 15.2% practiced both healthy and unhealthy diet, while the rest did extreme diet practices [4]. Knowledge, nutrition knowledge, and dietary knowledge are among of the factors to practice appropriate weight loss diet for the young women. They may be more cautious in selecting the kind or method of diet by paying attention to what diet they should consume to maintain the ideal body shape. Nevertheless, the perception on dietary knowledge is very subjective nature. Young women tend to choose the alternative way to rapidly lose weight which sometimes it is unsupported by adequate nutritional intake [2]. Female students practice many kinds of weight lose dietary methods. Out of 63% female students practiced weight loss diet, 21.5% of them had healthy dietary practices, 15.2% had combination of healthy and unhealthy dietary practices, and the rest had extremely unhealthy dietary practices [4].

In accordance to a previous study conducted in Indonesia, there is an indication that most of female students are not satisfied with their body shapes and eager to lose their weights. It was reported that 87.5% of female students were not satisfied with their body shape [5] and 80% want to lose their weight [6].

The aim of this research was to analyze the correlation among dietary knowledge, body image, and dietary practices in the 18-20 year old young women.

METHOD

This study was an analytical study with cross sectional design. This research was conducted at the Politeknik Negeri Jember, during the period of October 2014 to February 2015. The population in this study was the 18-20 year old female students who regularly attended the lecture activity in the Politeknik Negeri Jember. Total population in this study was 2,458 female students. The subjects in this study were 344 female students which were obtained based on the Solvin formula [7].

The variables of this study were dietary knowledge, body image, and dietary practices. Dietary knowledge is defined as the level of understanding owned by the respondent based on the questionnaire on dietary practices. Body image is defined as the perception of the respondents on their appearances and body shapes. Dietary practice is defined as dietary method with the goal to lose weight or to shape an ideal body figure.

Questionnaire was used as the instrument to collect the dietary knowledge, body image, and dietary practices. The validity and reliability test had been done on the questionnaire distributed to 20 respondents. The minimum score of validity test for dietary knowledge

questionnaire was 0.452 while the maximum score was 0.783 from the result of 15 questions. Dietary knowledge was classified into low category (score: < 60%), moderate category (score: 60-80%), and high (score: > 80%) [8]. The minimum score of validity test for body image questionnaire was 0.498 and the maximum score was 0.735 obtained from the result of 10 questions. Body image is classified into negative image (score: \leq mean) and positive (score: \geq mean) [9]. The scores of reliability test for dietary knowledge and body image questionnaire were, respectively, 0.740 and 0.742. Data on dietary practices was obtained by the Food Frequency Questionnaire (FFQ). Dietary practices were classified into unhealthy (score: \leq mean) and healthy (score: \geq mean) [9].

This study used the probability sampling technique. Respondents were selected from each study program by the technique of simple random sampling based on the number of students in each study program. The respondents were selected in accordance to the inclusion criteria: she must be 18 to 20 year old, regularly attend the lecture activities, and willing to be the research subject. In addition, the exclusion criteria included the respondent was not obliged to attend all session of this study.

The entire data collected by the researchers and enumerators by interviewing the respondents in the form of questionnaires. The informed consent was provided before the interview. This research had been reviewed and approved by the Ethic Committee of Politeknik Negeri Semarang, Ministry of Health Services of Malang with Reg. number: 074/2015.

Data of dietary knowledge were in the form of ordinal data, while data of body image and dietary practices were in nominal form. Data collected in this study was analyzed with Chi square test with $\alpha = 0.05$.

RESULTS

The Characteristics of the Subject

Table 1 present the frequency of the subjects' characteristics.

Table 1. The Frequency of the Subjects' Characteristics.

Characteristic		Frequency (n)	Percentage (%)
Age	18	242	70.3
	19	75	21.8
	20	27	7.9
Dietary Knowledge	Inadequate	36	10.5
	Adequate	154	44.8
	Good	154	44.8
Body Image	Negative	174	50.6
	Positive	170	49.4

The Correlation between Dietary Knowledge, Body Image, and Dietary Practices

Table 2. The Correlation between Dietary Knowledge, Body image, and Dietary Practices.

	Dietary Practice		p value
	Health (n)	Unhealthy (n)	
Dietary Knowledge			
Adequate	16	20	0.055
Inadequate	80	74	
Good	59	95	
Body image			
Negative	53	121	0.001
Positive	102	68	

*Based on the Chi Square test, $\alpha = 0.05$.

The table shows the absence of correlation between dietary knowledge and dietary practice expressed by ($p = 0.055$) and there is a correlation between body image and dietary practice expressed by ($p = 0.001$). It also demonstrated that respondents with negative body image have a propensity to have unhealthy dietary practices.

DISCUSSION

Among the adolescents, the anxiety regarding with weight control problems becomes more prevalence than their experiences in other life cycles. The physical changes that occur particularly in body shape and weight increases the risk of their anxiety [10]. Young women begin to think about their body shape and appearances. It occurs naturally in the adolescent development and the problem arises when the perception leads to the wrong one. Dissatisfaction on body shape is unavoidable, thus, there is an increased number of young women who practice weight loss diet [11]. The prevalence of dietary practices to lose weight is approximately 14% to 77% with the most common practice carried out by the young women. However, it becomes worrying that the weight loss diet performed by young women with normal body weight [4]. A similar opinion was also expressed by Brown (2005) who asserted that weight loss diet is not only practiced by female teenagers or young women who are obese or overweight, but also by young women with normal and underweight. Dietary practices are very affected by one’s dissatisfaction with the body shape. Continuous and tight dietary practices, however, will cause deviant eating behaviors or eating disorder. Knowledge, nutrition knowledge, and dietary knowledge are among of the factors to practice appropriate weight loss diet for the young women [11].

Young women may be more cautious in selecting the kind or method of diet by paying attention to what diet they should consume to maintain the ideal body shape. Nevertheless, the perception on dietary knowledge is very subjective nature. Young women tend to choose the alternative way to rapidly lose weight which sometimes it is unsupported by adequate nutritional intake [2].

This study indicated there is no correlation between dietary knowledge and dietary practices. Many young women have good dietary knowledge from formal education as well as references from literatures, particularly diet books. Nevertheless, many of them also violated

the guide and consumed foods that make them successful in losing weight. Some of them practiced weight loss diet without any considerations whether it is harmless or not. On the contrary, some of the practices lead to unhealthy conditions, such as stomachache, dizziness, etc. This result is opposed the findings obtained by Kumalasari (2010) as the study confirmed that the dietary knowledge is significantly associated with dietary behaviors [2].

Research conducted by Hesti (2010) at SMAN 4 Semarang showed there were 18.2% of female students could be categorized as carbohydrates deficit. They assume that the carbohydrates contain elements which cause obesity [12]. The fears of being fat and the desires to become slenderer motivate young women to reduce the amount of food that should be eaten and to skip certain meal time, despite the fact that their bodies can be presumed as skinny. Nevertheless, adequate knowledge of food to meet the needs of energy and other nutrients is required. In fact, the intake of energy and other nutrients which are less or more, especially in the long-term period, are bad for health [13].

As a matter of fact, the history of the ideal female body is fickle. As a consequence, women are more prone to be dissatisfied with their bodies and to have negative feeling regarding with their body shape. It leads to a large number of young women who overcome the body shape problems with diet to control their weights, additionally, deviant eating behaviors such as purging and binge eating become common [14].

Young women are also frequently likely to consider themselves for being overweight (obese), thus, it will increase the risk to practice weight loss diet. In Young women who consider themselves overweight was 26.6% whereas in fact, only 15.6% was positively overweight [10]. A study reported that women who carried out chronic dietary practices were evidenced to have low satisfaction on their body shapes. It is the beginning of a person's distorted body image [15]. An American study affirmed that 12% of young women considered themselves overweight so they practiced weight loss diet by combining dietary intake of foods with excessive physical activity than usual [13]. A half of young women consider themselves in obesity status, whereas only 17% of them have factual overweight status [17].

In this study, there is a correlation between body image and dietary practice. This study reaffirms the research with the conclusion that there is a correlation between the dissatisfaction of body image and female students practicing diet in which the higher is the feeling of dissatisfaction among the female students on their body shapes, the greater is the students' motivation to practice weight loss diet in inappropriate ways [18].

Body image is something that people perceive and believe about their appearances. Self-perception and physical appearance in one's mind as well as in social life are influenced by social, cultural, interpersonal interactions, physical characteristics, and other personal factors [19, 20, 21, 22]. The interference of one factor or more will influence an individual's in perceiving the body image, whether it is positive or negative. When the perception of body image inclines to the negative one, it is highly possible it will cause the body dissatisfaction. When an individual has a flaw related to the body image, it is presumed this individual will make efforts to improve it into an ideal body image. When an individual feels dissatisfied with the shape and size of the body, she will try harder to eliminate the feeling of the dissatisfaction.

In the adolescence phase, a young woman will occupy a great attention to her body. They will also definitely pay attention to her body shape. The attention of young women on body shape is reinforced by the developmental task that must be completed. Focused on the

female students, the desire to have an ideal body shape has brought the female student in the practice of weight loss by regulating the intake of foods that are consumed every day (diet). The eagerness to establish a more intimate relationship with the opposite sex, to receive a compliment from the social environment in the form of an attractive appearance, and to conquer the challenge to have an ideal body are among the motivations that the researchers figured out becoming the basis for the dietary practices among the female students.

CONCLUSION

Dietary practices have a significant correlation with body image, on the contrary, it have insignificant correlation with dietary knowledge.

SUGGESTION

Young women, especially in the adolescence, should practice healthy dietary methods based on their nutrition needs instead of only based on the perception of body image.

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