

Relationship between Hedonic Hungers with Eat Control in Women Adolescents

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Keyword: Adolescent Girls, Hedonic Hunger, Restrained Eating.

Abstract: The objective of this research is to determine whether there is a relationship between hedonic hunger and restrained eating among adolescent girls. The research method used in this study is quantitative correlational method. The research sample consisted of 181 respondents, ranged in age from 15 to 18. Data were analyzed using Pearson correlation and the results showed there is no significant relationship between hedonic hunger and restrained eating ($p > 0,005$). In summary, this study did not find significant correlation between hedonic hungers and restrained eating among adolescent girls.

1 INTRODUCTION

Adolescence is a transition from childhood to adulthood. At this time, adolescents are very concerned about appearance and begin to build judgments about their bodies (Santrock, 2015). It is very important for adolescents to start a healthy lifestyle such as forming attitudes and habits, including eating habits seeing quite high rates of obesity in adolescents. According to the Organization for Economic Co-operation and Development (OECD, 2017), the level of obesity in adolescents over 15 years in Indonesia reaches 5.7%. According to the Basic Health Research (RI, 2013) cases of obesity in adolescents aged 16-18 years the highest in Indonesia is in DKI Jakarta as much as 4.2%. This case of obesity occurs due to excess intake of food and energy-rich drinks, rich in saturated fats, added sugar and salt, but lack of nutritious food intakes such as vegetables, fruits and lack of exercise. In Indonesia, the proportion of people aged over 10 years tends to consume fatty foods, cholesterol, and fried foods by 40.7%, consumption of salty foods by 26.2% and consumption of sweet foods by 53.1%. Furthermore, the percentage of vegetable and fruit consumption less consumption behavior is 93.5% (RI, 2013).

When entering adolescence, women experience a greater increase in body fat than men who make their bodies more distant from their ideal body shape (Brooks-Gunn & Paikoff in (Santrock, 2015)).

According to (Mallick, Ray, & Mukhopadhyay, 2014), in his research revealed many studies have found that adolescent girls are interested in losing weight and more than 40% have tried to lose weight because of concerns about their weight. The survey conducted by Survey Self Magazine (2015) also states that 67% of women go on a diet because they believe weight affects happiness. (Rema, 2012), also conducted an online survey of 153 female respondents who stated 47% claimed to have taken a low carb diet to lose weight because the dieter could see the results instantly (4.5kg-9kg in two weeks). In a survey conducted by (Lubis, 2016), it was stated that 68% of respondents were even willing to pay more to get food that was suitable for their diet. Various kinds of dietary patterns become a solution to maintain ideal body weight, reduce body weight to be ideal and maintain general body health.

According to Wade (Palinski-Wade, 2013) diet is an effort to lose weight. Diets include a variety of behavioral patterns, from choosing foods that are good for health to very strict restrictions on calorie consumption (Prima & Sari, 2013). This calorie-limiting behavior is called restrained eating. In general, eating control is defined as an effort to intentionally limit food intake for the purpose of weight control. Over the years, Herman and Polivy have defined different terms for eating control, such as eating control is an attempt by a person to have a bodyweight below his weight. Eating control is a "dietary limit" determined by someone cognitively to

limit food intake, which limits food intake is precisely referring to failure in the diet.

According to Polivy, Herman and Wash, aspects of the diet include external, emotional and restraint. In dieting, efforts to limit food intake may be an indicator of great vulnerability to weight gain in the future. In the study of Papias (Papias, 2012), stated in Western society, only a few diets can reduce their weight in the long run. Papias revealed that living in an obesogenic environment is an influential factor in weight management and the development of obesity in society because living in that environment is the cause of unhealthy eating patterns and activities. The obesogenic environment is as an influence of the surrounding environment, opportunity, or living conditions that cause obesity in individuals and populations. As Wahyuningsih research, said that adolescents today are more exposed to chemicals than teenagers in ancient times. These chemicals not only come from polluted environments, but also from preservatives, dyes, and food and beverage seasonings. Most obesity occurs because of the difficulty to maintain health and gain weight due to the urge to eat which not only aims to replenish energy but with the availability of delicious foods (palatable food) and a strong urge to consume them. Considering living in an obesogenic environment, individuals tend to think about or want delicious food at any time. Worse, this situation does not limit the amount of food available, which triggers a hedonic hunger (Lowe & Butryn, 2007).

According to Lowe & Butryn (Lowe & Butryn, 2007), hedonic hunger is an urge to consume food based on things beyond meeting calorie needs. Another definition of hedonic hunger is the motivation to consume delicious food when the body does not lack energy. The most appropriate population to measure the level of hedonic hunger is a population of good nutritional levels (well-nourished population), where the availability of abundant food, especially high-calorie foods so that consuming these foods is excessively based on the state of hedonic hunger rather than homeostatic hunger. Homeostatic hunger is where an individual experiences a significant lack of energy and in an acute state requires calories. Whereas individuals who think hard about eating and lack of need for calories can be said to be in a state of hedonic hunger. Lowe & Butryn (Lowe & Butryn, 2007) say in homeostatic needs, food pleasure is assumed to be irrelevant to the need to fulfill energy and satiety. While in hedonic hunger, satiety has a relatively small role in the enjoyment of food (when food is consumed, the pleasure of eating does not go down,

even almost as good as when hungry). Therefore, the availability and enjoyment of food in the surrounding environment has a big influence on whether these foods will be desired and consumed.

Hedonic hunger is not something that can be measured with the naked eye, therefore Lowe made a measuring tool to measure the level of hedonic hunger, namely The Power of Food Scale (PFS). Lowe said that measurements on The Power of Food Scale are designed to measure the drive, thoughts, and even an individual's obsession with eating food and thinking about food. The Power of Food Scale assesses behavioral responses by using items such as, "I get more pleasure from food than other things I do" or "just before I taste my favorite food, I feel a great wait".

The author conducted an informal interview whose questions were based on The Power of Food Scale to a group of female students (8 students) in private high schools in South Jakarta. From the interviews, their hedonic hunger level is quite large. The main cause is because they live in an obesogenic environment, so the temptation and opportunities to eat outside the main food (snacking) are high. "I am not strongest of the satay smell, not hungry so hungry." And responded by his friend. "Ah, you say that I'm hungry. After that, bro, for example, see the nugget banana carts, drooling or not. Gorniak, Mardas, and Walkowiak (Przyslawski, Stelmach, Grygiel-Gorniak, Mardas, & Walkowiak, 2011), that adolescent girls really like snack foods and consume them besides consuming main food. In addition, they admit that they have more than enough allowance so they can buy these foods easily. One of them said, "For students, it's big. The thing is, the monthly fee is the same as the separate allowance. "And others respond to the same thing.

After conducting an interview about hedonic hunger, the authors continued the interview about diet, which aims to see their level of food control. According to Lowe and Thomas (2007), individuals who control eating (restrained eaters) are divided into three categories, namely 1. Individuals who carry out weight suppressor intentionally (weight suppressor), 2. Those who are currently on a diet (current dieters), 3. Those who are repeatedly involved in the diet cycle and overeating in the past (frequent dieters and overeaters). Two (current dieters and frequent dieters) from the three categories of individuals who control the eating of the writer found on respondents. Some were on a diet, some had gone on a diet but failed and one of them had never been on a diet but was interested in trying. The result, for those who have already, they feel the thing that becomes a failure in

the diet is an attempt to limit the intake of the food itself. "If I fit keto cannot eat rice, the first week is strong. The second week was not strong enough to buy a food bowl because KFC smelled food bowl through smell, it failed. The more detained, the more it fails, because once you can't stand it, it explodes like that," said one of them. There are also those who answer, "Yes, I did too, when the diet promised, cheat meal, so cheat day was over. I'll promise again, cheat day again, regret again, and promise again. Just continue like that." According to Herman and Polivy, this is known as what the hell effect, which is a cycle that is felt when someone enjoys what is done, then regrets what has been done, and is repeated again in the days of Papies and Aarts. Another thing that becomes a failure in dieting and losing weight for respondents is holding back for snacks at school. "For me, as long as the food is not in front of my eyes, it's not salivating. If you see your eyes in a canteen, you are directly salivating. Buyar," said one of them. In addition, they claimed not to pay attention to the calories and ingredients present in these foods. The author draws the assumption that this is related to hedonic hunger, where in fact they do not need calorie intake but think and feel the need to consume certain foods. This is in accordance with the opinion of (Hofmekler, 2007) that diet failure is caused by several things namely overeating during the day, eating when not hungry, mistakes in food selection, lack of adaptation to face environmental changes and excessive food supply. In addition, according to Herman & Mack dieters identified by the Restraint Scale measuring instrument are unsuccessful dieters, who are more famous for their deviations than for restraining themselves.

Based on the description above, it can be concluded that there is a relationship between hedonic hungers with eating control in adolescent girls. Therefore, the researchers wanted to see if adolescent girls have low or high levels of hedonic hunger, then whether the level of eating control tends to be low or high, which is related to dietary behavior will go well or not.

The purpose of this study was to determine the relationship between hedonic hungers with eating control in adolescent girls.

2 RESEARCH METHODS

2.1 Sampling Technique

The sampling technique used in this study is the non-probability sampling technique. According to

(Gravetter & Forzano, 2012), this technique does not provide equal opportunities for members of the population selected to be sampled. Researchers use convenience sampling techniques in the process of taking samples, namely techniques where respondents are chosen based on the approach, availability, accessibility, or other methods determined by the researcher (Gravetter & Forzano, 2012).

2.2 Research Design

In this study, researchers used a quantitative research approach. This type of research is based on measuring variables on individuals to get a score. The score obtained is usually a numerical value that will eventually be tested in statistical analysis for summary and interpretation (Gravetter & Forzano, 2012). The researcher uses a correlational research design, which is a measurement of two or more variables to get a set of values for each individual. These measurements are then examined to identify patterns of relationships that exist between variables and to measure the strength of relationships (Gravetter & Forzano, 2012).

2.3 Research Measuring Instruments

This research uses two measuring instruments. The first measuring instrument is The Power of Food Scale by Michael Lowe to measure the hedonic hunger variable, consisting of 3 dimensions and 21 items. The second measuring tool is the Restraint Scale of the Dutch Eating Behavior Questionnaire by Tatjana Van Strein to measure food control variables, consisting of 10 items. Both of these measuring instruments were adapted by Anggita Dian Cahyani.

2.4 Validity and Reliability of Measuring Instruments

Validity is how precise a measuring instrument is in measuring what is measured (Gravetter & Forzano, 2012). In both The Power of Food Scale and the Restraint Scale of the Dutch Eating Behavior Questionnaire, researchers used content validity through expert judgment by Anggita Dian Cahyani.

Reliability is the consistency of the measuring instrument (Gravetter & Forzano, 2012). The researcher uses the internal consistency reliability test which is the consistency between items in the test as an indication that the test in question has a reliable measurement function. The Cronbach's Alpha value on The Power of Food Scale is 0.923 with the number

of items $N = 21$ and the Restraint Scale of the Dutch Eating Behavior Questionnaire is 0.899 with the number of items $N = 10$.

2.5 Data Processing Techniques

The study uses correlation analysis techniques to see if there is a relationship between two variables (Gravetter & Forzano, 2012). The researcher used Pearson correlation analysis, which is a hypothesis test to find out the relationship between the two variables in this study, the relationship between hedonic hunger and eating control. The software used for data processing is SPSS Statistics version 24.

3 RESULTS AND DISCUSSION

In collecting data, questionnaires were distributed to 181 respondents who were teenage girls aged 15-18 years, at least have been on a diet.

Table 1. Analysis of Research Participants by Age

Age	Frequency	Percent
15 years old	21	11,6%
16 years old	74	40,9%
17 years old	75	41,4%
18 years old	11	6,1%
Total	181	100%

The age range of respondents in this study was 15 to 18 years. In the table above there are 21 respondents aged 15 years with a percentage of 11.6%, 74 respondents aged 16 years with a percentage of 40.9%, 75 respondents aged 17 years with a percentage of 41.4% and 11 respondents aged 18 years with a percentage of 6.1%

Table 2. Analysis Based on Allowances

Amount of Allowance	Frequency	Percent
500.000	61	33,7%
500.000-1.000.000	85	47%
More than 1.000.000	35	19,3%
Total	181	100%

The amount of allowance owned/issued by respondents in one month is divided into three categories, namely less than 500,000, 500,000-1,000,000 and more than 1,000,000. In the table above, there were 61 respondents who had an allowance of less than 500,000 with a percentage of

33.7%, 85 respondents had an allowance of 500,000-1,000,000 with a percentage of 47% and 35 respondents had an allowance of more than 1,000,000 with a percentage of 19.3%.

Table 3. Analysis Based on Purpose of Expenditures Cost

Purpose	Frequency	Percent
Food	108	60%
Shop for goods	45	25%
Treatment	6	3%
Others	22	12%
Total	181	100%

In addition to wanting to know the amount of allowance issued by respondents in one month, researchers also want to see what the allowance is used for. Spending allowance by respondents is divided into four categories, namely food, shopping for goods, treatment, and others. In the table above, there are 108 respondents spending their allowances on food with a percentage of 60%, 45 respondents spending their allowances on goods shopping with a percentage of 25%, 6 respondents spending their allowances on treatment with a percentage of 3% and 22 respondents spending their allowances on other things with a percentage of 12%.

Table 4. Analysis Based on Food Selection Preferences

Preference	Frequency	Percent
Snack / buy food outside the home	87	48,1%
Eat home cooking	94	51,9%
Total	181	100%

Respondents' food selection preferences are divided into two, namely snacks / buying food outside the house or eating home cooking. In the table above, there are 87 respondents choosing snacks / buying food outside the home with a percentage of 48.1% and 94 respondents choosing home cooking with a percentage of 51.9%.

Table 5. Analysis Based on Food Purchasing Methods

Method	Frequency	Percent
On the spot	89	49%
Online taxi bike Delivery	81	45%
	11	6%
Total	181	100%

The choice of food purchasing method is divided into three, namely buying directly (on the spot), online taxi bike or delivery. In the table above, there are 89 respondents choosing to buy directly (on the spot) with a percentage of 49%, 81 respondents choosing an online taxi bike with a percentage of 45% and 11 respondents choosing to delivery with a percentage of 6%.

Table 6. Analysis Based on Sources of Information Regarding Food

Sources of Information	Frequency	Percent
Social media (Instagram, Twitter, Facebook, etc.)	152	84%
Family/friends	29	16%
Total	181	100%

Information obtained by respondents regarding current foods is divided into two choices, namely social media and family / friends. In the table above, 152 respondents received information through social media with a percentage of 84% and 29 respondents chose family / friends with a percentage of 16%.

Table 7. Analysis of Do Research Participants Doing Sports

Sports	Frequency	Percent
Yes	47	26%
No	134	74%
Total	181	100%

Researchers want to find out whether respondents during the last 3 months doing moderate-intensity exercise (150 minutes per week, or the equivalent of 20-30 minutes per day). In the table above, 47 respondents did it with a percentage of 26% and 134 respondents did not do it with a percentage of 74%.

3.1 Relationship between Hedonic Hungers and Eating Control

Correlation test analysis was conducted to determine the relationship between hedonic hunger with eating control in adolescent girls. In this research, the Pearson correlation data analysis method is used. The criterion of testing in this method is if a significant value > 0.05 then H_0 is accepted, whereas if a significant value < 0.05 then H_0 is rejected. The following are the results of the analysis of the hedonic hunger correlation test with eating control.

Table 8. Correlation Test Results

		Correlations	
		Hedonic Hungers	Eating Control
Hedonic Hungers	Pearson	1	.033
	Correlation		
	Sig. (2-tailed)	.	.658
	N	181	181
Eating Control	Pearson	.033	1
	Correlation		
	Sig. (2-tailed)	.658	.
N		181	181

Based on the correlation test that can be seen in the table above, it can be concluded that the Hungarian Hedonistic variable has no relationship with the Eating Control variable, because the results of the significance of 0.685 which is greater than 0.005 so that H_0 is accepted.

4 CONCLUSIONS AND SUGGESTIONS

4.1 Conclusions

This research was conducted with the aim to find out whether there is a relationship between hedonic hunger with eating control in adolescent girls. Based on the results of the study, it can be concluded that there is no significant relationship between hedonic hunger with eating control. This is seen from the Pearson correlation coefficient between the hedonic hunger variable with the resulting meal control variable of 0.685 or above 0.005 ($p > 0.005$). That is, the Zero Hypothesis (H_0) is accepted, with the sound "There is no significant relationship between hedonic hunger with eating control in adolescent girls."

4.2 Discussion

Brooks-Gunn & Paikoff said that women experience an increase in body fat greater than men, thus making the body more distant from the ideal body shape (Santrock, 2015). This is likely to trigger respondents (adolescent girls) to control eating to achieve ideal body shape. According to Lowe a combination of environments that are filled with delicious food (palatable food) and cultural norms that make these foods "psychologically available" become the perfect

container for hedonic hungry. But it turns out, in this study found no correlation in the obesogenic environment associated with hedonic hunger, eating control would also produce a correlation between hedonic hunger with eating control itself. Considering living in an obesogenic environment, it is thought that implicit or explicit awareness of palatable food can cause individuals to often think or want such food at any time. Worse, this situation does not limit the amount of food available, which triggers hedonic hunger. (Lowe & Butryn, 2007). Apparently, the theory is not in accordance with this research. It can be seen in table 4.4 that the frequency of respondents who choose to eat home cooking is greater than those who choose to eat snacks (48.1% and 51.9%), which in hedonic hungry are more likely to buy food outside because of the strong urge to eat delicious food (palatable food). In addition, it can be seen in table 4.2 that the frequency of respondents who have pocket money in excess of 1,000,000 per month is only 19.3% of 100% of participants, while researchers have an assumption the greater the allowance they have, the more likely it is to trigger hedonic hunger because it is more easy to buy food anytime. The irregularity of the results of this study lies in the results of the analysis based on the objectives of the study participants' expenses. The result is 60% of 100% of participants choose to pay for food compared to shopping for goods, care (care) and others. This should support the discovery of hedonic hunger in this study. Analysis based on the participant's food purchasing method showed that 49% chose to buy directly (on the spot), 45% of online motorcycle taxi and 6% of delivery. Researchers assume that if buying directly means the availability of these foods in the environment affects the purchasing decisions of participants to buy these foods, while the rest who choose online motorcycle taxi and delivery message are more concerned with the practical side because the food goes straight to the front door. Obesogenic environment is as an influence of the surrounding environment, opportunity, or living conditions that cause obesity in individuals and populations. This is consistent with the results of the analysis whether the study participants did sports with a percentage of 74% of 100% participants not doing sports during the last 3 months of moderate intensity (150 minutes per week, or the equivalent of 20-30 minutes per day). The living conditions of today's teens who depend on social media such as Instagram, Twitter, Facebook, and others that facilitate access to find out or get information about food, especially delicious food (palatable food) and contemporary foods. The results

of the analysis based on sources of information about the study participants' food showed that 84% found out through social media and 16% through family / friends. The weakness of this research lies in the method of distributing questionnaires conducted digitally (google docs), which is likely to make respondents feel confused and limited if there are question items that are not understood. So, they fill in at random or not optimal. Maybe it would be more effective if the distribution of the questionnaire was done in paper and pencil as the researchers did at the time of the pilot study, so that if the study participants had questions they could directly ask the researchers until they understood.

4.3 Suggestions

Theoretical Suggestions

For further research, researchers suggest expanding the number of samples used in the study. Expanding in the sense of being able to add numbers, change or add sample variations. In addition, more attention to the process of sampling techniques that will be used from beginning to end, one of them is by changing the method of disseminating data from digital (google docs) to the paper and pencil method, so that if research participants have questions they can be directly asked to researchers until they understand.

Practical Suggestions

For adolescent girls, researchers suggest paying attention to health by starting a good and appropriate diet and diet. Because, hedonic hunger and food control (related to inappropriate dietary behavior) can be a trigger for overeating, obesity and dangerous diseases later in life. In addition, researchers hope there is education, perhaps in the form of educational materials and educational programs such as seminars from the school about healthy eating and healthy lifestyles so that youth understand how important it is to pay attention to health as early as possible.

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