

The Study on Food Consumption Pattern and Nutritional Status of Adolescence in Public Senior High School 1 Eban

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ABSTRACT

Many variables, both directly and indirectly impact teenage girls' eating habits and nutritional condition. The goal of this study is to see if there's a link between teenage girls' nutritional knowledge, their mothers' education, their parents' roles, and their family's income and their eating habits and nutritional status in SMA Negeri 1 Eban. Food consumption pattern is the composition of food that includes the amount, type, and frequency of food consumed by both individuals and groups within a certain period of time. Nutritional status is a state of the body caused by a balance between nutrient intake from food and the nutritional needs needed for body metabolism. This study utilized an analytic survey with a cross-sectional research design to evaluate the eating habits and nutritional status of teenage girls in SMA Negeri 1 Eban over a limited period of time. Participants in this study were all young women in grades X and XI, amounting to 262 people. The sample method was used by simple random sampling. The results of the research revealed that there was a significant relationship between nutritional knowledge ($p = 0.010$) and the nutritional status of adolescent girls. The research also stated that there was no significant relationship between nutritional knowledge ($p = 0.887$), maternal education ($p = 0.746$), parental roles ($p = 0.745$), and family income ($p = 0.078$) with the consumption patterns of adolescent girls, and there was no significant relationship between mother's education ($p = 0.439$), the role of parents ($p = 0.396$), and family income ($p = 0.075$). For young women, this research is intended to provide an overview of consumption patterns and nutritional status, enable them to change bad eating habits at home and at school, and apply nutritional information in their daily lives.

Keywords: *consumption pattern; nutritional status; eban; adolescent*

ABSTRAK

Banyak variabel, baik secara langsung maupun tidak langsung yang mempengaruhi pola konsumsi dan status gizi remaja putri. Tujuan dari penelitian ini adalah untuk melihat apakah ada hubungan antara pengetahuan gizi remaja putri, pendidikan ibu, peran orang tua, dan pendapatan keluarga dengan pola konsumsi dan status gizi remaja putri di SMA Negeri 1 Eban. Pola konsumsi merupakan susunan makanan yang mencakup jumlah, jenis, dan frekuensi makan yang dikonsumsi baik oleh individu maupun kelompok dalam kurun waktu tertentu. Status gizi merupakan keadaan tubuh yang diakibatkan oleh keseimbangan antara asupan zat gizi dari makanan dengan kebutuhan zat gizi yang diperlukan untuk metabolisme tubuh. Penelitian ini menggunakan survei analitik dengan desain penelitian potong lintang untuk mengevaluasi pola konsumsi dan status gizi remaja putri di SMA Negeri 1 Eban. Partisipan dalam penelitian ini adalah seluruh remaja putri kelas X dan XI yang berjumlah 262 orang. Metode pengambilan sampel yang digunakan adalah *simple random sampling*. Hasil penelitian menunjukkan bahwa ada hubungan yang signifikan antara pengetahuan gizi ($p = 0,010$) dengan status gizi remaja putri. Hasil penelitian ini juga menunjukkan bahwa tidak ada hubungan yang signifikan antara pengetahuan gizi ($p = 0,887$), pendidikan ibu ($p = 0,746$), peran orang tua ($p = 0,745$), dan pendapatan keluarga ($p = 0,078$) dengan pola konsumsi remaja putri. serta tidak ada hubungan yang signifikan antara pendidikan ibu ($p = 0,439$), peran orang tua ($p = 0,396$), dan pendapatan keluarga ($p = 0,075$). Bagi remaja putri, penelitian ini dimaksudkan untuk memberikan gambaran tentang pola konsumsi dan status gizi, memungkinkan mereka untuk mengubah kebiasaan makan yang buruk di rumah dan di sekolah, serta menerapkan informasi gizi dalam kehidupan sehari-hari.

Kata Kunci : *pola konsumsi; status gizi; eban; remaja putri*

INTRODUCTION

Adolescence is a transitional period between childhood and adulthood characterized by physical, physiological, and psychological changes. The age limit for adolescents according to WHO is 12 to 24 years, while according to the Minister of Health of the Republic of Indonesia in 2010, the age

limit for adolescents is between 10-19 years and not married. Sexual function maturation, growth acceleration, and the achievement of adult body shape that occur due to the maturation of endocrine processes are characteristics of adolescence. ⁽¹⁾ The nutritional problems of toddlers and children are the basis of the nutritional problems of adolescent girls that still exist today where there is no right solution to break the chain of problems. Adolescent girls are vulnerable to nutritional problems so they need a lot of energy and nutrient intake in their bodies for daily activities and for their survival. Several determinant factors that affect adolescent nutritional problems are consumption patterns and nutritional status.

Food consumption pattern is a food arrangement that includes the amount, type and frequency of individual or group meals per day which are generally consumed within a certain period of time. Adolescent consumption patterns are needed for growth and development which must be balanced in terms of type, quantity and frequency. In general, the set meal frequency is 3 times a day and is served in a balanced manner consisting of sources of energy, protein and minerals. Consumption patterns in the past and present greatly affect nutritional status in the future. ⁽²⁾ The condition of a person or group of individuals resulting from the consumption, absorption, and utilization of food nutrients is referred to as nutritional status ⁽³⁾ Growth indicators for adolescent girls can be seen from measurements of TB/U, BW/U, and BW/TB as a means of determining nutritional status and body mass index (BMI/U).

Many factors, both directly and indirectly, affect the consumption patterns of young women including education level, level of knowledge, income level, role of parents and peers, age, gender, and so on. The biggest role in the family to access, process and provide food for family consumption is the mother so it is necessary to have sufficient knowledge so that action is formed. Eating habits and health conditions are direct determinants of the nutritional status of adolescent girls ⁽⁴⁾.

According to Hartono's research (2018) on 127 people (94.8 percent) at the Nahdaltaul Ulum Islamic Boarding School, Soreang Maros, a typical nutritional status based on Body Mass Index (BMI) according to age is said to be that the higher a person's level of nutritional knowledge, the better his nutritional status is expected. Anyway ⁽⁵⁾. Meanwhile, Luciana et al. (2012) found that mother's education and family income had a significant effect on children's eating habits. ⁽⁶⁾

In West Miomaffo District there is only one high school, namely SMA Negeri 1 Eban. Based on the results of initial observations of young women, it can be seen that some of their teenage daughters have problems related to consumption patterns and nutritional status seen from body size and height and there are also nutritional problems in adolescents such as anemia due to iron deficiency in the body. Meanwhile, based on the results of interviews with several mothers who have teenage girls, it was found that the average mother's education only finished elementary school so that the knowledge they had was still minimal. In addition, the openness of the school and the willingness of the students to become respondents were supporting factors in conducting this research. Based on the results of observations,

the author wishes to conduct a study with the title "A Study of Food Consumption Patterns and Nutritional Status of Young Women in SMA Negeri 1 Eban, West Miomaffo District, North Central Timor Regency in 2020".

Referring to the above background, the formulation of the problem that can be formulated is how to study the food consumption patterns and nutritional status of adolescent girls at SMA Negeri 1 Eban, West Miomaffo District, North Central Timor Regency in 2020. The general purpose of this study is to determine the food consumption patterns and nutritional status of adolescent girls. SMA Negeri 1 Eban while the specific purpose of this study was to determine the relationship between nutritional knowledge of adolescent girls, mother's education, family income and the role of parents with consumption patterns and nutritional status of adolescent girls at SMA Negeri Eban.

METHOD

This research was conducted in the form of an analytic survey and used a cross sectional research design to look at the consumption patterns and nutritional status of adolescent girls at SMA Negeri 1 Eban. The research was conducted at SMA Negeri 1 Eban, West Miomaffo District, North Central Timor Regency. The study lasted for one month. The population of this study was 262 young women of SMA Negeri 1 Eban. Simple random sampling is used to ensure that everyone has an equal chance of being selected as a sample with total of sample are 72. Teenage girls in grades X and XI, aged 15 to 21 years are the requirements to be research subjects. Questionnaires or questionnaires are used to collect research data for primary data categories, while the documentation procedure is used for secondary data types. The Chi-Square test with a significance level of 0.05 was used as a data analysis approach to determine the relationship between independent and dependent variables. Tables and narratives are used to present the results of this study. This research has received ethical approval from the Health Research Ethics Commission, Faculty of Public Health, Nusa Cendana University with number 2021038 – KEPK.

RESULT AND DISCUSSION

1. Characteristics of Respondents

Based on table I, it can be seen that from 72 respondents, for the characteristics of consumption patterns there are 16 respondents (22.2%) in the good category, 17 respondents (23.6%) in the moderate category and 39 respondents (54.2%) in the less category. For the characteristics of nutritional status, there are 9 respondents (12.5%) in the thin category, 61 respondents (84.7%) in the normal category and 2 respondents (2.8%) in the obese category. For the characteristics of nutritional knowledge, there are 31 respondents (43.1%) in the poor category, 37 respondents (51.4%) in the moderate category and 4 respondents (5.6%) in the good category. For the characteristics of mother's education, there are 1 respondent (1.4%) in the category of not attending

school, 41 respondents (56.9%) in the category of graduating from elementary school, 19 respondents (26.4%) in the category of graduating from junior high school, 6 respondents (8, 3%) with the category of graduating from high school and 5 respondents (6, 9%) with a college graduate category. For the characteristics of the role of parents, there are 33 respondents (45.8%) in the category of no influence and 39 respondents (54.2%) with the category of no influence. For the characteristics of family income, there are 5 respondents (6.9%) with sufficient category and 67 respondents (93.1%) with less category. The characteristics of the respondents can be seen in the following table:

Table I. Distribution of Respondents Based on Characteristics of Adolescence in SMA Negeri 1 Eban

Characteristics	Category	Frequency (N)	Percentage (%)
Food Consumption Pattern	Good	16	22.2
	Good Enough	17	23.6
	Not Good	39	54.2
Nutritional status	Thin	9	12.5
	Normal	61	84.7
	Fat	2	2.8
Nutritional Knowledge	Not Good	31	43.1
	Good Enough	37	51.4
Mother's Education	Good	4	5.6
	No school	1	1.4
	Elementary School	41	56.9
	High school graduate	19	26.4
	finished high school	6	8.3
The role of parents	Graduated PT	5	6.9
	There is Influence	33	45.8
Family Income	No Influence	39	54.2
	Enough	5	6.9
	Not enough	67	93.1

The results of the analysis of the relationship between the dependent variable and the independent variable showed that there was a relationship between nutritional knowledge and the nutritional status of adolescent girls. The research also found that there was no relationship between nutritional knowledge, mother's education, role of parents, and family income with the consumption habits of adolescent girls, and there was no relationship between mother's education, parental role, and family income with the nutritional status of adolescent girls. The following table summarizes the findings of this study:

Table 2. Relationship Between Nutritional Knowledge, Mother's Education, Role of Parents and Family Income with Food Consumption Patterns and Nutritional Status of Young Women in SMA Negeri 1 Eban

Independent Variable	Dependent Variable	Total	%
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	Food Consumption Pattern						Total	%
	Good	%	Good Enough	%	Not Good	%		
Nutritional Knowledge								
Not Good	6	8.3	6	8.3	19	26.4	31	43.0
Good Enough	9	12.5	10	13.9	18	25.0	37	51.4
Good	1	1.4	1	1.4	2	2.8	4	5.6
Total	16	22.2	17	23.6	39	54.2	72	100
<i>P-Value</i>					0.887			
Mother's Education								
No school	0	0	0	0	1	1.4	1	1.4
Elementary School	7	9.7	11	15.3	23	31.9	41	56.9
High School Graduate	4	5.5	4	5.5	11	15.3	19	26.3
Finished High School	3	4.2	1	1.4	2	2.8	6	8.4
Graduated PT	2	2.8	1	1.4	2	2.8	5	7.0
Total	16	22.2	17	23.6	39	54.2	72	100
<i>P-Value</i>					0.746			
The role of parents								
There is Influence	6	8.3	8	11.1	19	26.4	33	45.8
No Influence	10	13.9	9	12.5	20	27.8	39	54.2
Total	16	22.2	17	23.6	39	54.2	72	100
<i>P-Value</i>					0.745			
Family Income								
Enough	3	4.2	0	0	2	2.8	5	6.9
Not enough	13	18.1	17	23.6	37	51.4	67	93.1
Total	16	22.2	17	23.6	39	54.2	72	100
<i>P-Value</i>					0.078			

Independent Variable	Dependent Variable						Total	%
	Nutritional Status							
	Thin	%	Normal	%	Fat	%		
Nutritional Knowledge								
Not Good	4	5.6	27	37.5	0	0	31	43.0
Good Enough	5	6.9	32	44.4	0	0	37	51.4
Good	0	0	2	2.8	2	2.8	4	5.6
Total	9	12.5	61	84.7	2	2.8	72	100
<i>P-Value</i>					0.010			
Mother's Education								
No School	1	1.4	0	0	0	0	1	1.4
Elementary School	5	6.9	34	47.2	2	2.8	41	56.9

High School Graduate	2	2.8	17	23.6	0	0	19	26.4
Finished High School	1	1.4	5	6.9	0	0	6	8.4
Graduated PT	0	0	5	6.9	0	0	5	6.9
Total	9	12.5	61	84.7	2	2.8	72	100
<i>P-Value</i>	0.439							
The role of parents								
There is Influence	6	8.3	26	36.1	1	1.4	33	45.8
No Influence	3	4.2	35	48.6	1	1.4	39	54.2
Total	9	12.5	61	84.7	2	2.8	72	100
<i>P-Value</i>	0.396							
Family Income								
Enough	1	1.4	4	5.6	0	0	5	6.9
Not enough	8	11.1	57	79.2	2	2.8	67	93.1
Total	9	12.5	61	84.7	2	2.8	72	100
<i>P-Value</i>	0.775							

2. Relationship between Nutrition Knowledge and Consumption Patterns and Nutritional Status of Adolescence

Knowledge of nutrition is a cognitive characteristic that shows the respondent's understanding of nutrition, various types of nutrients, and how they affect nutritional status. The basis for deciding food consumption is knowledge. The results of research on adolescent girls at SMA Negeri 1 Eban showed that the highest category was adolescents who had knowledge of poor nutrition by 43.0%. Although their knowledge is lacking, the majority of their consumption patterns are good and the majority of their nutritional status is still classified as normal. Consumption patterns are rarely directly influenced by knowledge but through social interaction, purchasing power, and nutritional skills in accessing food ingredients according to the availability of food in the area.

Analysis of nutritional knowledge variables with consumption patterns and nutritional status of adolescent girls using Chi Square analysis obtained values ($p_1 = 0.887$ and $p_2 = 0.010$), so it can be concluded that the nutritional knowledge variable has no relationship with consumption patterns and the nutritional knowledge variable has a relationship with nutritional status. . This is in accordance with Rizkiyanti's research (2015) which showed a significant relationship between nutritional knowledge and nutritional status ($p < 0.05$) based on the results of the Pearson correlation analysis statistical test. ⁽⁷⁾

3. The Relationship of Mother's Education with Consumption Patterns and Nutritional Status of Adolescence

Education is a process of emotional and intellectual formation of a person, and mother's education has a significant influence in regulating family spending habits. The results of the study

on adolescent girls at SMA Negeri 1 Eban showed that the majority of mothers' education in the area was 56.9% of elementary school graduates and the majority of their occupations were farming so that nutritional fulfillment for adolescents was not considered properly. Where parents spend more time working in the garden or rice fields than at home and the consumption patterns of parents are mostly done at work. According to some respondents, In everyday life, it is children who play a role in processing and providing food at home, so that children only process what their parents provide and are in the garden or in the kitchen without paying attention to the nutritional value contained in it. This is caused by the low level of education and understanding of parents about the importance of balanced nutrition for young women where young women will experience a period of pregnancy and puberty which requires a lot of energy. Educational factors do not have a direct influence on nutritional status but rather have an influence on one's insight or knowledge. This is caused by the low level of education and understanding of parents about the importance of balanced nutrition for young women where young women will experience a period of pregnancy and puberty which requires a lot of energy. Educational factors do not have a direct influence on nutritional status but rather have an influence on one's insight or knowledge. This is caused by the low level of education and understanding of parents about the importance of balanced nutrition for young women where young women will experience a period of pregnancy and puberty which requires a lot of energy. Educational factors do not have a direct influence on nutritional status but rather have an influence on one's insight or knowledge.

Analysis of the mother's education level variable with consumption patterns and nutritional status of adolescent girls using Chi Square analysis obtained values ($p_1 = 0.746$ and $p_2 = 0.439$), so it can be concluded that the parental role variable has no relationship with consumption pattern variables or nutritional status variables. According to Handasari et al (2010), poverty, an unclean environment, infectious diseases, and inadequate health services have an impact on the relationship between maternal education and family eating habits ⁽⁸⁾. Meanwhile, according to Suhartini (2017) states that a person's high or low level of education will produce different levels of knowledge and nutritional status. The better and higher one's understanding is caused by the high level of education one takes. ⁽⁹⁾

4. The Relationship of the Role of Parents with Consumption Patterns and Nutritional Status of Adolescence

The role of parents is a collection of behaviors by two individuals, in this case the father and mother, to work together and be responsible as role models for children consistently to certain stimuli, both in the form of physical form as well as moral and spiritual attitudes, as well as emotional independence. The results of research on adolescent girls at SMA Negeri 1 Eban showed

that there were 54.2% in the category of no parental influence on consumption patterns and nutritional status of adolescent girls and 45.8% in the category of parental influence on adolescent consumption patterns and nutritional status daughter. Processing and providing food in the family is carried out by girls so that the role of parents in regulating children's consumption patterns is still very lacking. Parents are busy working outside the home so they rarely cook for their children, when children come home from school and there is no food available on the table, respondents prefer to consume white rice or noodles as an alternative to overcome hunger. Other than that, although the nutritional status of the majority of respondents is normal, the role of parents in suggesting and preparing breakfast and lunch menus for children is still very minimal. The menu consumed every day is obtained from plantation and agricultural products where the menu consumed in the morning is the same as the afternoon and evening menu. In addition, the role of parents in educating children to have a healthy consumption pattern is still very minimal where the level of education and knowledge of parents is still relatively low.

Analysis of parental role variables with consumption patterns and nutritional status of adolescent girls using Chi Square analysis obtained values ($p_1 = 0.745$ and $p_2 = 0.396$), so it can be concluded that the parental role variable has no relationship with consumption pattern variables or nutritional status variables. The results of this research contradict the research conducted by Mangdy (2014), which states that parents play an important role in food availability, nutritional awareness, and nutritional composition of food given to adolescents where their eating habits begin at home ⁽¹⁰⁾.

5. Relationship of Family Income with Consumption Patterns and Nutritional Status of Adolescence

The financial ability of a family to meet daily needs is referred to as family income. The quality and amount of food consumed is influenced by a person's income level. It is easier for families with high or medium incomes to make healthy eating choices. The results of research on adolescent girls at SMA Negeri 1 Eban showed that there were 93.1% of respondents' families in the less category where the Provincial Minimum Wage (UMP) of the family per month was less than Rp. 1,9500,000 because the majority of father's and mother's occupations in this area are farmers. The average income of farmers earned each month is uncertain and far from sufficient. This will affect purchasing power, access and fulfillment of nutrition in the family.

Analysis of family income variables with consumption patterns and nutritional status of adolescent girls using Chi Square analysis obtained values ($p_1 = 0.078$ and $p_2 = 0.775$), so it can be concluded that family income variables have no relationship with food consumption pattern variables or nutritional status variables. According to Aisyah (2016), food consumption patterns are

not only influenced by family income but many factors such as the knowledge and education level of the respondents that have been achieved ⁽¹¹⁾. According to Almatsier (2011), when wealth increases, a major change in diet is that the food consumed becomes more expensive ⁽¹²⁾.

CONCLUSION

Based on the research results obtained data that aand the relationship between nutritional knowledge and nutritional status. While the variables of nutritional knowledge, mother's education, parental roles, and family income have no relationship with food consumption patterns and nutritional status of adolescent girls at SMA Negeri 1 Eban, the variables of mother's education, parental roles, and family income have no relationship with adolescent nutritional status daughter. For young women, this research is intended to provide an overview of consumption patterns and nutritional status, enable them to change bad eating habits at home and at school, and apply nutritional information in their daily lives. As for parents, it is hoped that parents will play a more role in regulating the menus consumed by teenagers every day such as preparing lunch for young women, suggesting that breakfast before going to school and all family members should always eat together at meal times so that children's consumption patterns parental control

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