

The Relationship of Family Support to the Levels of Fish Consumptions of the Overweight Teenagers Aged 13-15 Years

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Abstract: Adolescence is a top of growth. Teenagers are also important targets in improving the nutritional status of the community. Fish is a good source of protein for the growth and development of the body. The low consumption of fish of adolescents can be influenced by psychological and social factors. This study aims to determine the effect of family support on the level of fish consumption in overweight adolescents in Surakarta. This study is a cross-sectional research design, with 33 of overweight students as the sample. The data is analyzed by chi-square test. The results showed that there is no significant relationship between family support and the level of fish consumption which is ($p = 0,772$). School can use media such as posters or games about the importance of fish consumption and protein intake for both boys and girls teenager, and the school also can campaign more with the slogan of "gemar makan ikan". Parents can be educated to make processed fish with various menu variations so that children can like fish more.

1 INTRODUCTION

Adolescence is a transition period from childhood to adulthood. Adolescents experience several changes at the same time including physical, cognitive, social and emotional changes (Rahmawati et al., 2015).

The rate of obesity in adolescents continues to increase. The World Health Organization (WHO) stated that overweight in adolescence is one of the main challenges for health workers and society due to the increasing prevalence of overweight worldwide (Wang and Lobstein, 2006).

The World Health Organization (WHO) stated that more than 340 million children and adolescents aged 5-19 years are overweight and obese (WHO, 2018). The research that had done by Harista (2012) stated that at least 2.8 million adults die every year due to being overweight and obese.

The increasing rate of obesity is mostly associated with lifestyle, diet and inappropriate behaviour, which causes obesity, is formed in adolescence and continues into adulthood (Hajivandi, et al., 2020).

Until now, the consumption pattern of the Indonesian society towards animal food sources is

generally still lower than plant foods. In 2014, the consumption of animal protein was 32.1% of total protein. National animal protein consumption is very low and needs to be increased. The low consumption of protein has a potential to hamper the efforts to improve the quality of Indonesian human resources (Badan Pusat Statistik, 2014).

The consumption pattern of the Indonesian society towards animal food sources, particularly fish, is still low. In 2017, the average target of fish consumption is 47 kg or about 128 grams/capita/day, but fish consumption in the community is still under the target of 37.30 kg per year or about 102.19 grams/capita/day. In 2018, the national fish consumption target is 50.65 kg/capita/year or 138 grams/day while the average fish consumption in the community is 39.57 kg/capita/year or about 108.41 gram/capita/day (Kementerian Kelautan dan Perikanan, 2018).

Family support plays an important role in shaping adolescent dietary behaviour and physical activity. Based on the results of research by Wang et al., (2014), showed that family support is associated with the increase of physical activity. There is no

significant relationship between family support and nutritional status, but it contributes to improve the nutritional status of adolescents (Ardina, 2016).

Until now, there has been no research on fish consumption of overweight junior high school teenagers in Surakarta City. Therefore, the purpose of this study is to determine the relationship of family support towards the level of fish consumption of junior high school adolescents who were overweight, both male and female.

2 MATERIALS AND METHODS

The type of this research is an analytic observational study, which aims to determine the causal relationship between the dependent variable and the independent variable without any intervention on the variables studied.

The research design used is a cross sectional by looking for the relationship between the two research variables at the same time or at one time.

Sampling is done in stages by using (simple random sampling and purposive sampling) which is used to determine the sample. Firstly, subjects were screened using google form, then adolescents who had a z-score >1 SD were used as samples of this research.

The research was conducted in April at SMPN 2 Surakarta and SMP Kristen Pelita Nusantara Kasih Surakarta. The sample inclusion criteria included: First, junior high school students of seventh and eighth grades. They are considered overweight based on the anthropometric examination results. Second, they had a personal smartphone, and were willing to be the respondents. While the exclusion criteria are: those who did not have food allergies and who had diarrhea on the previous days when the study was conducted.

The dependent variable in this study is the level of fish consumption while the independent variable is family support.

3 RESULTS AND DISCUSSION

3.1 Results

3.1.1 Respondent Characteristics

The respondents studied were 33 of overweight teenagers. Characteristics of respondents including age, gender, parents' occupation, and parents' income it can be seen in Table 1.

Table 1. Frequency Distribution of Research Respondents

Respondent Characteristics	(n)	(%)
Age		
12	4	12,1
13	19	57,6
14	7	21,2
15	3	9,1
Gender		
Male	14	42,4
Female	19	57,6
Parents' Occupation		
Labor	7	21,2
Merchant/Entrepreneur	11	33,3
Private employee	8	24,2
PNS/TNI/POLRI	3	9,1
Others.....	4	12,1
Parents' Income		
>Rp. 2.800.000	17	51,5
≤Rp. 2.800.000	16	48,5
(n)	33	100

Based on Table 1 above, it shows that 57.6% of respondents are 13 years old, and most of the respondents are female (57.6%). The occupations of the respondents' parents are mostly traders/entrepreneurs (33.3%) and private employees (24.2%).

3.1.2 Distribution of Fish Consumption Frequency

Table 2. Distribution of Fish Consumption Frequency of Overweight Adolescents

Category	(n)	(%)
Infrequent (<5 Times/Week)	11	33,3
Frequent (≥5 Times/Week)	22	66,7
(n)	33	100

3.1.3 Family Support

Table 3 below shows that through the questionnaire given to the respondents, it can be seen that most of the respondents have the support of family. It is 87,9%

Table 3. Family Support Distribution

Category	(n)	(%)
Less (<12)	1	3,0
Adequate (13 – 36)	29	87,9
Good (>37)	3	9,1
(n)	33	100

3.1.4 The Relationship of Family Support to the Level of Fish Consumptions in Overweight Adolescents

Table 4 shows that there is no relationship between family support and the level of fish consumption in overweight adolescents as evidenced by the results of the chi-square analysis ($p = 0.772$).

Table 4. The Relationship of Family Support towards the Level of Fish Consumption

Family Support	FFQ		(n)	<i>p</i>
	Infrequent	Frequent		
Less	0	1	1	0,772
Adequate	10	19	29	
Good	1	3	3	
(n)	11	22	33	

Based on Table 4 above, it can be seen that most of the respondents (19) received support from their families and the level of fish consumption belongs to the frequent category.

3.2 Discussion

Based on the results of the study, it was found that the majority of respondents were female as many as 19 people (57.6%). This is because after screening the respondents, it was found that some of the respondents who were overweight were women.

Based on the result of the chi-square analysis showed that there was no significant difference between family support and the level of fish consumption of overweight adolescents ($p\text{-value} > 0.05$). This can happen because both family and respondents do not know the importance of fish consumption of adolescents. His family lacks knowledge regarding the importance of fish consumption in adolescence, where fish consumption is a form of diet because fish is a source of protein.

This study is not in line with research conducted by Sumirgar et al in 2015 that family support, especially both parents at home, is strongly associated with increased consumption of food and beverages at home. Family support is a form of attention and encouragement that adolescents get through interpersonal relationships consisting of attention, emotion and judgment.

The level of fish consumption which is classified as frequent (> 5 times / week) with family support is included in the sufficient category, it can indicate that the collection of information on the level of fish consumption through the google form is not optimal.

According to Van, et al, 2007 and McClain, et al (2009) stated that the availability of food ingredients in the household and the intake of parents determine the intake and level of consumption of the child. The research from (Di Noia and Thompson, 2012) also stated that some African-American adolescents who are in low-income families are significantly associated with consuming five servings of food daily.

Food security of the family level supports the level of protein consumption so that the better food security of the family is, the better level of protein consumption will also be. The higher value of the level of protein consumption (111.5% RDA) is due to the tendency to consume tofu, tempeh, eggs, and milk in sufficient quantities every day. It is motivated by the easiness factor to have tofu, tempeh, and eggs so that it becomes the choice of the household to be consumed (Safitri, et al, 2017).

Parents can be educated or can be given nutrition counseling to make processed fish with various menu variations so that children can like fish more. Parents can also be given information about the importance of protein, particularly fish in the growth period.

4 CONCLUSIONS

Based on the results of interviews conducted through questionnaires, it is known that there is no significant relationship between family support and the level of fish consumption of overweight adolescents ($p\text{-value} > 0.05$).

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