

Research Articles

Frequency of "Snacking", Consumption of Junk Food and Screen Time with the Incidence of Overweight in Students

Frekuensi "Ngemil", Konsumsi *Junk Food* dan *Screen Time* dengan Kejadian *Overweight* pada Mahasiswa

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Abstract

Adolescents who experience nutritional status are more due to the behavior of eating a lot but not doing physical activity so what happens is that the energy that enters the body is not appropriate and far more than the energy used for activity and growth. The purpose of this study was to determine the relationship between Frequency of "Snacking", Consumption of Junk Food, Screen Time with Overweight Incidence in UPN Veteran Jakarta Students. The method in this research was quantitative and used a cross sectional study design. The sample in this study was 38 samples with the simple random sampling technique. The instrument in this study was to use a questionnaire. Based on the results, there were 36.8% of subjects with more nutrition. Based on the results of the chi square test, it shows that there is a relationship between junk food consumption ($p = 0,014$) and screen time ($p = 0,030$) with the incidence of overweight. Meanwhile, the frequency of "snacking" there was no relationship with the incidence of overweight ($p = 0,093$). The conclusion is that there is a relationship between junk food consumption and screen time with the incidence of overweight in adolescents. There is no relationship between the frequencies of "snacking" with the incidence of overweight in adolescents.

Keywords: junk food, snacking, overweight, teenagers

Abstrak

Remaja yang mengalami status gizi lebih disebabkan karena perilaku banyak makan tetapi kurang melakukan aktivitas fisik maka yang terjadi adalah energi yang masuk ke dalam tubuh tidak sesuai dan jauh lebih banyak daripada energi yang digunakan untuk beraktivitas dan masa pertumbuhan. Tujuan penelitian ini adalah Untuk mengetahui hubungan antara Frekuensi "Ngemil", Konsumsi *Junk Food*, *Screen Time* Dengan Kejadian *Overweight* Pada Mahasiswa UPN Veteran Jakarta. Metode dalam penelitian ini adalah kuantitatif dan menggunakan desain *Cross Sectional Study*. Sampel dalam penelitian ini sebanyak 38 sampel dengan teknik *Simple Random Sampling*. Instrumen dalam penelitian ini adalah menggunakan kuesioner. Berdasarkan hasil, terdapat 36,8% subjek dengan gizi lebih. Berdasarkan hasil uji *chi square* menunjukkan adanya hubungan antara konsumsi *junk food* ($p=0,014$) dan *screen time* ($p=0,030$) dengan kejadian *overweight*. sedangkan, pada frekuensi "ngemil" tidak terdapat hubungan dengan kejadian *overweight* ($p=0,093$). Kesimpulan adalah terdapat hubungan antara konsumsi *junk food* dan *screen time* dengan kejadian *overweight* pada remaja. tidak terdapat hubungan antara frekuensi "ngemil" dengan kejadian *overweight* pada remaja.

Kata Kunci: junk food, ngemil, overweight, remaja

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INTRODUCTION

Overweight is a condition where your weight is above the weight of adolescents in the same age and height in general, which is caused by excessively stored fat in the body (Suharsa and Sahnaz, 2016). Being overweight is a disorder seen from excess fat tissue in the body. Overnutrition has become a problem in the world and was recognized in the World Health Organization (WHO) in 2010 to be a health problem. Being overweight is a little scary among teenagers (Wulandari et al, 2016).

The limit for the transition of life from child to adulthood is adolescence. Adolescents experience growth such as growth with followed by sexual symptoms that arise due to psychological factors and growth during interactions with parents and the future, during which time there is a formulation of dreams that gives birth to the formation of goals in the future (Putro, 2018).

The World Health Organization (WHO) in 2010 revealed that as many as 81,4% of adolescents in developing countries and 18,6% of adolescents in developed countries experienced overnutritional status. The prevalence of over nutrition status and obesity around the world jumped, which are 4,2% and 6,7% in 2010. Meanwhile, nationally, the prevalence of overweight in adolescents aged > 18 years increased from year to year; in 2007 was 8,6 %, in 2013 was 11,5% and in 2018 was 13,7% (Indonesian Ministry of Health, 2018) West Java Province had a prevalence of over nutrition as much as 11,7% in adolescents aged > 18 years (Health Office of West Java Province, 2017). In 2013, West Java was included in thirteen provinces with a prevalence of overnutrition above the national prevalence (Ministry of Health, Republic of Indonesia, 2013). This can be seen from the prevalence rate of over nutrition of 26,9% in 2013. Depok City is included in the list of cities with the second highest prevalence of overnutrition status in West Java in 2017, which was 21% (Health Office of West Java Province, 2017).

Modern lifestyle will lead to adolescent nutritional status exceeding normal limits, so a teenager will experience more nutritional status. This triggers adolescents to eat excessively but do not carry out physical activity, thus, what happens is the calories that are consumed to the body are not appropriate and far more than the calories consumed during activities and during development (Izhar, 2020). Overweight can be caused by several factors, including gender, food intake, breakfast habits, snack habits, lack of physical activity, screen time, exposure to food advertisements, birth weight, exclusive breastfeeding, knowledge of maternal nutrition, and family socio-economic factors. (Maiyuni, 2018).

Snacking habits are a desire to consume food based on appetites. Therefore, even though the stomach is full of food or drink, it can accelerate to eat food continuously and the result is a high level of energy consumption (Suharsa and Sahnaz, 2016). Snacking can lead to consumption of excess saturated fat and high total energy if not adjusted for the reduction of main meals. Furthermore, snacking can also create a chaotic diet. A chaotic diet can have a detrimental effect on fat levels and insulin profiles (Oktaviani et al, 2012; Septiana et al, 2018).

Another factor associated with being overweight is the consumption of Junk Food. Junk food is food with high energy and few micronutrients such as vitamins, minerals, amino acids and fiber. Junk food can be defined as a staple food substitute. The excessive energy, fat and sugar content in Junk Food will contribute to the occurrence of more nutrition (Mhaske and Patel, 2013; Amalia et al, 2016).

More nutrition is also influenced by several things, for example, the length of the Screen Time. Screen Time describes the length of time used for the use of electronic media including the use of a computer or laptop, a device, playing games or watching videos (Ningrum, 2018).

Based on a preliminary study carried out for researchers on 30 people, 53% of the subjects at the FIKES UPN Veteran Jakarta were overweight, 50% of the subjects at the FIKES UPN Veteran Jakarta consumed snacks at least 2 times a day, 55% of the subjects at the FIKES UPN Veteran Jakarta consumed Junk Food and 50% of subjects at FIKES UPN Veteran Jakarta > 2 hours staring at the Mobile screen. Therefore, researchers were encouraged to observe the frequency of "snacking", consumption of Junk Food and Screen Time as well as its relation to the nutritional status of students of the Universitas Pembangunan Nasional Veteran Jakarta in order to obtain accurate data so that it can prevail the relationship.

METHODS

This research is a quantitative study with a cross sectional study design using a questionnaire and FFQ interview instruments. In this study, the samples were students of the second and fourth semesters of the Universitas Pembangunan Veteran Nasional Jakarta in April 2020, with the total of 38 people. This research used Simple Random Sampling. Data collection techniques used FFQ interviews about snacking habits and Junk Food with a questionnaire about Screen time. Data analysis was univariate and bivariate with the Chi Square test.

Subject characteristics

Based on Table 1, it shows that male is 15,8% and female is 84,2%. At the age of 18, it was 23,7%, 19 years old was 50%, 20 years old was 21,1% and 21 years old was 5,3%. The major of D3 of Nursing is 13,2%, D3 of Physiotherapy is 7,9%, Bachelor of Nursing is 21,1%, Bachelor of Public Health 23,7% and Bachelor of Nutrition Science 34,2%.

Table 1. Characteristics of adolescents

Characteristics	n	%
Gender		
Man	6	15.8%
Women	32	84.2%
Age		
18	9	23.7%
19	19	50.0%
20	8	21.1%
21	2	5.3%
Majors		
D3 of Nursing	5	13.2%
D3 of Physiotherapy	3	7.9%
S1 of Nursing	8	21.1%
S1 of Public Health	9	23.7%
S1 of Nutrition Science.	13	34.2%
"Snacking" frequency		
Rarely	19	50%
Often	19	50%
Consume Junk Food		
Not often	19	23.7%
Often	29	76.3%
Screen Time		

Characteristics	n	%
Normal	11	28.9%
High	27	71.1%

Source: Primary Data, 2020

Table 1 also shows that the nutritional status of not excess nutrition is 63,2% and excess nutrition is 36,8%. The frequency of snacking in the rare category is 50% and the frequent category is 50%. In the consumption of Junk Food, the category was not frequent is 23,7%, the category was frequent is 76,3%. In the screen time category, there are subjects in the normal category is 28,9% and the high category is 71,1%.

The relationship between the frequency of "snacking", consumption of junk food, screen time and the incidence of overweight

The results of the analysis of the relationship between snacking frequency and overnutrition showed that there were 15 people (79%) who were undernourished and 4 people (21%) over nourished had less frequent snacking. Meanwhile, 9 people (47,4%) had no more nutrition and 10 people (52,6%) had more frequent snacking. The results of the chi-square test resulted in a p value of 0,093 ($p < 0,05$). It can be concluded that there is no significant relationship between snacking frequency and over nutrition. This research is in line with the research conducted by (Wicaksono, 2015) which said that there was no relationship between the frequency of "snacking" with the incidence of overweight in adolescents at SMP Negeri 5 Karanganyar with a p -value of 0,818 (p -value $> 0,05$).

Table 2. The Relationship between the frequency of "snacking", consumption of junk food, screen time and the incidence of overweight

Variable	Nutritional status				Total		p -Value
	Not Overnutrition		Overnutrition		n	%	
	n	%	n	%			
Snacking Frequency							
Rarely	15	79	4	21	19	100	0,093
Often	9	47,4	10	52,6	19	100	
Consume Junk Food							
Not often	9	100	0	0	9	100	0,014
Often	15	51,8	14	48,2	29	100	
Screen Time							
Low	10	91	1	9	11	100	0,030
High	14	52	13	48	27	100	

Source: Primary Data, 2020

Based on the results of the research which states that there is no relationship between the frequencies of "snacking" with the incidence of overnutrition due to several factors. Some subjects with high snacking frequency but without overnutrition status because these subjects continued to do physical activity and reduced the main meal portion so that even though the snacking frequency was high, the nutritional status was not overnutrition and the opposite happened in some subjects with less snacking frequency but experienced over nutritional status due to consumption of high calorie snacks and habit of eating heavy meals without any reduction in portions and with a high screen time so that these subjects

experienced over nutritional status but with less frequent “snacking”. According to Suharsa and Sahnaz (2016) snacking habit is a desire to eat based on the appetite. As a result, even though the stomach is full, a dish can spur to eat continuously and there is an increase in the level of energy consumption.

According to the Indonesian Dictionary (KBBI), snacking is an activity of eating snacks. Snack is a food that is consumed between main meals. Snacks will help increase your calorie needs, as well as those obtained from main meals. Calorie of snack portions should be less than the main meals. That's why eating snacks should not cause fullness because it is only intended so people do not starve themselves. Snacks can be in the form of traditional food or and other snacks such as fried foods, cakes, snacks, and so on (Nurhayati and Lasmanawati, 2012).

The results of the analysis of the relationship between junk food consumption and over nutrition showed that there were 9 people (100%) who were undernourished and 0 people (0%) with over nutrition had a rare junk food diet. Meanwhile, 15 people (51,8%) had no over nutrition and 14 people (48,2%) had more frequent consumption of junk food. The results of the chi-square test resulted in a ρ value of 0,014 ($\rho < 0,05$). Thus, it can be concluded that there is a significant correlation on the frequency of eating junk food with over nutrition.

This study is in line with research conducted by Amalia et al. (2016) that subjects with over nutrition often consume junk food (32,3%) more than subjects who rarely eat junk food (18,4%). The results of statistical tests with chi-square can be concluded that there is a significant relationship between the frequency of consumption of junk food and over nutrition with a value of ρ , namely 0,013 ($\rho < 0,05$). According to Izhar, (2020) in SMA Negeri 1 Jambi as many as 75 students stated that, the results of the analysis found that ρ was 0,001 ($\rho < 0,05$), it concluded that there was a significant relationship between junk food consumption habits and the incidence of overnutrition.

Some of the factors causing the high frequency of junk food consumption include the influence of the environment, such as the family, campus, or the surrounding environment. The factor that causes many subjects to frequently consume junk food is the location that is close to various kinds of junk food outlets, making it easier to access them. In addition to easy access, changes in attitudes, knowledge, lifestyle and behavior, as well as changes in diet are the causes of the high frequency of junk food consumption. (Hanum, Dewi, et al, 2015; Ariyana and Asthiningsih, 2020; Lestari and Asthiningsih, 2020).

The results of the analysis of the relationship between screen time and overnutrition showed that there were 10 people (91%) who were undernourished and 1 person (9%) overnutrition had a low screen time. Meanwhile, 14 people (52%) were undernourished and 13 (48%) overnutrition had frequent screen times. The results of the chi-square test resulted in a ρ value of 0,030 ($\rho < 0,05$). It can be concluded that there is a significant relationship between screen time and overnutrition.

This research is in line with the research conducted by Utami et al. (2018) which revealed that there was a significant relationship between screen time of more than 2 hours per day with the risk of obesity in junior high school students in Yogyakarta ($\rho = 0.019$). A higher screen time is significantly associated with a higher level of energy intake ($\rho = 0,037$). Ayuni (2017) said that there was a significant relationship between nutritional status and the length of screen time ($\rho = 0,039$).

According to World Health Organization data, one of the causes of over nutrition is increased sedentary behavior and lack of physical activity (Paramitha et al, 2013). According to (Pramudita and Nadhiroh, 2018) The habit of sedentary is an activity where when lying down or sitting that does not require high energy, such as lying or sitting while watching videos, reading, playing electronic games and others. The development of easy

technology will make a traditional lifestyle change into a lifestyle for a while. A sedentary lifestyle will reduce physical activity and increase the incidence of overweight.

CONCLUSION

This study shows that there is no significant relationship between the frequency of "snacking" and *Overweight* and there is a significant relationship between Junk Food Consumption and Screen Time with the incidence of Overweight.

CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

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