JK: Jurnal Kesehatan
Vol. 1 No. 6 2023, hal., 407-415
e-ISSN: 2987-9655

ANALYSIS OF JUNK FOOD CONSUMPTION BEHAVIOR ON ADOLESCENT HEALTH USING BODY MASS INDEX (CASE STUDY ON STUDENTS OF SMP AL-WASIYAH 30 MEDAN)

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ABSTRACT

Increasing prosperity, technological progress and westernization can lead to changes in lifestyle and eating patterns in the community, especially teenagers who tend to like fast food (junk food) as well as a decrease in physical activity which can increase the occurrence of excess nutrition. The nutritional needs of adolescents need to be considered because during adolescence there is rapid growth and development. Unhealthy eating habits will affect adolescent nutritional intake. Unhealthy foods such as fast food are consumed by many teenagers. At a time when everything is modern like now, teenagers want everything to be fast-paced, including choosing food. Fast food is also known to the public as junk food. Junk food is defined as junk food or food that has no nutrition for the body. Eating junk food is not only useless, but can also damage health. Fast food comes from western countries which generally contain high fat and calories. This research is an analytic descriptive study with a cross sectional approach. The population size is 654 students. The sample consisted of 80 respondents, namely grade 7 and 9 students at SMP Al-Wasliyah 30 Medan, who were randomly selected according to the proportion of each class. Statistical test analysis using the Spearman Rank Correlation test and Chi Square. The results showed that there was a relationship between fast food consumption habits (p=0.038;ρ=0.232), television viewing time (p=0.037; ρ=0.233), total energy consumption (p=0.001; ρ= -0.592), carbohydrate consumption (p = 0.001; ρ= -0.604), consumption of protein (p=0.001; ρ= -0.567), consumption of fat (p=0.001; ρ= -0.397) and knowledge of nutrition (p=0.009; ρ=0.289) with Mass Index Body (BMI). There was no relationship between sleep duration, playing computer/video games, exercise habits, carbohydrate consumption, fat consumption, pocket money, parental income, mother's education level, and gender with Body Mass Index (BMI). Suggestions for schools are to carry out educational efforts through health education and to monitor the nutritional status of students through anthropometric measurements.

Keywords: *Consumption of Junk Food, Adolescent Health.*

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ABSTRAK

Peningkatan kemakmuran, kemajuan teknologi dan westernisasi dapat mengakibatkan perubahan gaya hidup dan pola makan di masyarakat, khususnya remaja yang cenderung menyukai makanan cepat saji (junk food)serta penurunan aktivitas fisik yang dapat meningkatkan terjadinya gizi lebih.Kebutuhan gizi remaja perlu diperhatikan karena pada masa remaja terjadi pertumbuhan dan perkembangan yang cepat. Kebiasaan makan yang tidak sehat akan mempengaruhi asupan gizi remaja. Makanan tidak sehat seperti makanan cepat saji banyak dikonsumsi remaja. Pada saat semua serba modern seperti sekarang, remaja menginginkan semuanya serba cepat, termasuk dalam memilih makanan. Makanan cepat saji juga dikenal masyarakat sebagai junk food. Junk food diartikan sebagai makanan sampah atau makanan yang tidak memiliki nutrisi bagi tubuh. Makan makanan junk food tidak hanya sia-sia, tetapi juga dapat merusak kesehatan.Makanan cepat saji berasal dari negara barat yang umumnya memiliki kandungan lemak dan kalori yang tinggi. Penelitian ini merupakan penelitian deskriptif analitik dengan pendekatan cross sectional. Besar populasi adalah 654 siswa. Sampel berjumlah 80 responden yaitu siswa kelaS 7 dan 9 SMP Al-wasliyah 30 medanyang dipilih secara acak sesuai proporsi tiap kelas. Analisis uji statistik menggunakan uji Korelasi Rank Spearman dan Chi Square. Hasil penelitian menunjukkan terdapat hubungan antara kebiasaan konsumsi fast food (p=0,038;ρ=0,232), lama menonton televisi (p=0,037; ρ=0,233), total konsumsi energi (p=0.001; ρ= -0.592), konsumsi karbohidrat (p = 0,001; ρ= -0.604), konsumsi protein (p=0.001; ρ= -0.567), konsumsi lemak (p=0.001; ρ= -0,397) dan pengetahuan gizi (p=0,009; ρ=0,289) dengan Indeks Massa Tubuh (IMT). Tidak ada hubungan antara lama tidur, lama main komputer/video games, kebiasaan olahraga, konsumsi karbohidrat, konsumsi lemak, uang saku, pendapatan orang tua, tingkat pendidikan ibu, dan jenis kelamin dengan Indeks Massa Tubuh (IMT). Saran bagi pihak sekolah adalah dengan melakukan upaya edukasi melalui penyuluhan kesehatan serta melakukan pemantauan status gizi siswa melalui pengukuran antropometri.

Kata Kunci : Konsumsi Junk Food, Kesehatan Remaja.

INTRODUCTION

Body Mass Index is a method used in determining a person's nutritional status. In adolescents, this determination is based on calculating the Body Mass Index (BMI) which is then matched with a growth chart according to age and sex. Among the classifications of Body Mass Index, what is seen as a problem is overnutrition which includes overweight and obesity where overweight is categorized in the BMI of the 85th - 95th percentile, while BMI of >95th percentile is included in the obesity category.

Overnutrition or in layman's terms known as obesity is an unbalanced nutritional status due to excessive nutrient intake resulting in an energy imbalance between food consumption and energy expenditure which can cause health problems. The prevalence of overweight and obesity worldwide is experiencing a trend that is

steadily increasing in the last 30 years. One age group that is at risk for excess nutrition is the adolescent age group.

Teenagers are people between the ages of 13 and 16 years. According to the Regulation of the Minister of Health Number 25 of 2014, adolescents are the age group of 13 to 16 years. Adolescence begins at age 13 and ends around age 15 or 16. Teenagers have special nutritional needs compared to other age groups. This is because during adolescence there is rapid growth and changes in physiological maturity associated with puberty.

Adolescents need different nutritional needs when viewed from a biological and psychological perspective. Biologically, the nutritional needs of adolescents must be balanced with their activities. Teenagers need more protein, vitamins and minerals from every energy consumed compared to childhood. When viewed from a psychological perspective, adolescents do not pay much attention to health factors in making their choices. However, adolescents pay more attention to other factors, such as the people around them, hedonistic culture, and the social environment which greatly influence them.

The nutritional needs of adolescents need attention. This is because nutritional needs in adolescents increase due to increased growth and development. In addition, changing lifestyles and eating habits will also affect adolescent nutritional intake. The adolescent age group is preoccupied with lots of physical activity. Therefore, the needs of calories, protein, and micronutrients in adolescents need to be considered.

Increasing affluence and the influence of westernization can lead to lifestyle changes in choosing food which tends to favor fast food which has an unbalanced nutritional content, namely containing high amounts of energy, salt and fat including cholesterol and only a small amount of fiber. Fauzul, et al in elementary school students in Manado said that students who frequently consume fast food at least 3 times per week have a 3.28 times risk of becoming overnourished.

SMP Al-Wasliyah 30 Medan has quite solid learning and extracurricular activities. Its location close to markets and places to eat that provide fast food, allows students to consume fast food. The results of the preliminary study showed that 17.22% of students experienced excess nutrition. Therefore, the authors decided to take a research sample at SMP Al-Wasliyah 30 Medan which is one of the favorite junior high schools in Medan and has never done research on the relationship between fast food consumption habits, activity, and other factors with Body Mass Index (BMI) in teenager. The purpose of this study was to analyze the relationship between fast food consumption habits, physical activity (sleep time, television viewing time, computer/video game time, exercise habits), consumption pattern (total consumption of energy, carbohydrates, fat, protein), adolescent characteristics (pocket money, knowledge of nutrition, gender).

Formulation of the problem

Based on the background above, the problem can be formulated, namely how does the consumption of junk food affect the health of adolescents?

Rsearch purposes

The goal to be achieved in this study is to find out how adolescents with body mass incidents relate to the consumption of junk food?

Benefits of research

for health

For the health of this research is expected to be useful in the health of adolescents does not consume junk food

for academics

It is hoped that this research from academia will be useful as one for adolescents with dissimilar body incidents in the future.

RESEARCH METHODOLOGY

Researh methodology

The method used in this study is a qualitative descriptive method, namely a method that interprets the data obtained based on the data obtained in the study. Disclosure of problems regarding junk food consumption behavior on the health of adolescents with body mass incidents. This type of research is an analytic descriptive study with a cross sectional study approach. The population in this study were all grade 8 students at SMP Al-Wasliyah 30 Medan, totaling 654 students. Differences in activity and stress levels in grade 9 students became a consideration for researchers not to include them in the population because they allowed differences in eating patterns and sleep patterns, so they could not be used to represent the population. The minimum sample size was calculated based on the sample formula for testing the hypothesis for two-way population proportions. 'Lemeshow' and obtained 80 samples which were determined using simple random sampling method. Samples were taken from 18 classes, 10 respectively 7th grade and 8th grade 9th.

Furthermore, the students in the class were simply randomized to be selected as the sample. The selection of students from each class who were included as samples was obtained through the proportion formula, namely 41 students in grade 7 and 39 students in grade 8 and consisted of 45 female students and 35 male students. The instrument in this study was a questionnaire containing questions regarding physical activity, characteristics of respondents and parents. Meanwhile, data on the frequency of fast food consumption was obtained based on the food frequency form which consisted of questions about the frequency of 9 types of fast food, namely hamburgers, hot dogs, pizza, spaghetti, fried chicken, french fries, donuts, sandwiches, frozen food (sausages, nuggets) and data consumption pattern based on

charging 2 times 24 hour recall. Height and weight data were obtained by measuring and weighing the respondents directly.

DISCUSSION

Table 1
Index Frequency Distribution Body Mass (BMI) and Nutritional StatusJunior High School Al-Wasliyah 30 medan

IMT	FREKUENSI (F)	PERCENT (%)
<18,50 Malnutrition	24	30,00
18,50-24,99 (normal)	37	46,25
25,00-29,99 (*overweight*)	12	15,00
≥30 (obesitas)	7	8,75
Amount	**80**	**100,00**

Table 1 shows that the prevalence of excess nutrition (overweight and obesity) in adolescents at SMP A-lwasliyah 30 Medan is 23.75%. This result is quite high when compared to the prevalence of overweight adolescents in Indonesia, which is 19.1%. In a similar study by Mardatillah, the prevalence of overnutrition in adolescents at SMP Islam PB. Soedirman, East Jakarta, was 33.6%. Meanwhile, in another study by Elita on 194 students of SMP Al-Wasliyah 30 Medan, 12.9% experienced excess nutrition.

The difference in the results of this study with previous studies is possible due to differences in the characteristics of the respondents, the number of samples, and the research sampling method. The proportion of overweight in girls (52.6%) is higher than in boys (47.4%). Women have a greater tendency to be overweight (high BMI). Adolescent girls store more of their excess energy as stored fat, while boys use their excess energy to synthesize protein. By the time physical maturity occurs, usually the amount of body fat of female adolescents is twice as much as that of males.

This fat accumulation occurs in the area around the hips, breasts and upper arms. In Amaliah's study, Nelly stated that fat accumulation is often associated with the start of menarche, which occurs when female adolescents have a body fat of at least 17% of their body weight. This tendency is not supported by the results of statistical tests which show that there is no relationship between gender and the incidence of overweight. in teenagers. The results of this study are in line with the research by Mardatillah and Meilinasari and Karnaeni who found that there was no significant relationship between gender and the incidence of overweight (high BMI).

Table 2
Frequency Distribution of Fast Food Consumption Habits for Adolescents at SMP Al-Wasliyah 30 Medan

Junk food consumption behavior	F	%
1 TIMES/WEEK	1	1,25
2 TIMES/WEEK	2	2,50
3 TIMES/WEEK	6	7,50
4 TIMES/WEEK	9	11,25
5 TIMES/WEEK	5	6,25
6 TIMES/WEEK	9	11,25
7 TIMES/WEEK	13	16,25
>7 TIMES/WEEK	35	43,75
AMOUNT	**80**	**100,00**

The relatively high prevalence of over nutrition in students of SMP Al-Wasliyah 30 Medan is associated with a high habit of consuming junk food as well. From the research resultsIt is known that all adolescents at SMP Al-Wasliyah 30 Medan have consumed junk food in the past week.

The lowest frequency is once and the highest is> 7 times/week (43.75%) as shown in table 2. Of the 9 types of fast food studied, the type of junk food chicken was the most frequently consumed junk foodrespondents (73.75%), followed by frozen food (nuggets, sausages). The results of Rank Spearman's univariate analysis showed that there was a significant relationship between junk food consumption habits and Body Mass Index (BMI) with p=0.038; ρ(rho)=0.232. The more often you consume junk food, the greater the value of BMI and vice versa. This result is in line with Imam's research that there is a relationship between the frequency of junk food and the Body Mass Index (BMI).

The high frequency of adolescents consuming junk food can increase the accumulation of calories in the body which causes an increase in BMI values (over nutrition). Badjeber et al found that elementary school students who consumed junk food > 3 times/week had a 3.28 times greater risk of becoming more nutrition compared to rare or 1-2 times/week. These foods are generally produced by the food processing industry with high technology and provide various addictive substances to preserve and give flavor. If this food is often consumed continuously and excessively, it is feared that it will result in an increase in the value of Body Mass Index (over nutrition).

CONCLUSIONS

1. There is a significant relationship between junk food consumption habits, television viewing time, total energy consumption, carbohydrate consumption, protein consumption, fat consumption and nutritional knowledge with Body Mass Index (BMI).
2. There is no significant relationship between length of sleep, length of time playing computer/video games, exercise habits, pocket money, parental income, mother's education, and gender with Body Mass Index (BMI).
3. A total of (46.25%) had a Body Mass Index (BMI) of 18.50-24.99 with normal nutritional status, 30% were undernourished, and 23.75% were overnourished.
4. As many as 43.75% of respondents have a habit of consuming junk food with a frequency of >7 times/week.
5. In physical activity data, it was found that as many as 43.75% of respondents had
6. long sleep 8 hours a day, 20% of respondents watch television for 3 hours a day, and 37.5% of respondents have a long time playing computer/video games 1 hour a day, and 47.5% of respondents with a habit of exercising 1.5-3 hours a week .
7. In consumption pattern data, it was found that most of the respondents (72.50%) had energy consumption <90% RDA, 52.50% consumed carbohydrates <90% RDA and 46.25% of respondents consumed protein <90% RDA . Most of the respondents (65%) have fat consumption ≥120% RDA.
8. The majority of respondents (56.25%) were female, 21.25% of respondents with 9 correct answers out of 16 questions, and 85% of respondents had pocket money of IDR 5,000 to IDR 10,000.
9. In the data on the characteristics of parents, it was found that the majority of respondents (62.5%) had low education (≤SMA) and 43.75% had an income of Rp.
10. 2,000,000.- to Rp. 4,000,000.-.

Suggestion

For Schools

a. Carry out educational efforts through counseling on nutrition and adolescent health as well as healthy lifestyle for students and it is possible that it can also be done for parents students on special occasions.
b. Increase the knowledge and role of members of the Youth Red Cross (PMR) as school health ambassadors, so that they can help disseminate health information, especially nutrition, to other students.
c. Monitoring the body mass index of students through routine anthropometric measurements, so that the nutritional status of adolescents can be known from an early age.

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