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HEALTH BEHAVIOR OF CHILDREN FROM RURAL AREAS OF THE ELBLĄG DISTRICT (IN POLAND) WITH REGARD TO FAT CONSUMPTION: A PILOT STUDY

Summary

Background. Health behavior is one of the main determinants of human health. As civilization progresses, the lifestyles of adults, children and adolescents are changing with consequences for the health of specific population groups. Therefore, knowledge about human nutrition and lifestyle factors that affect human health is also constantly changing. The aim of the study was to assess the selected health behaviors using the example of the frequency of consumption of food being a source of saturated fat by rural children. One of the aspects concerning health behavior, namely fat intake as a measure of the consumption of unhealthy food, especially in the case of overconsumption, was assessed using the food frequency questionnaire. The validated Block Screening Questionnaire for Fat Intake (BSQF) was used for the assessment.

Results and conclusions. The studied group of children from rural areas of the Elbląg District (Poland) showed an average level of health behavior exemplified by fat intake. Further research monitoring the health-promoting behavior and attitudes of children in rural areas is useful and justified for the diagnosis of whether actions are necessary to promote the formation of attitudes and hierarchies of health values. In the light of the challenges relating to the Sustainable Development Goals (SDGs), needs and trends of a hedonistic nature are important. These include, among other things, the issue of ensuring health and taking greater care of the mental and physical well-being of children and adults (families).

Key words: health behavior, fat, children, sustainability

Introduction

An analysis of changes in consumer behavior around the world led to the thesis that trends in food consumer behavior are a consequence of existing threats that trans-

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late into food safety and food security. In the area of food security, the primary threat is the lack of physical and economic availability and adequacy. Physical availability is the availability of sufficient food to sustain human life for the entire population at all times. Economic availability is the ability of all segments of society, including the poorest, to purchase food. Adequacy, on the other hand, is understood primarily in terms of a balanced food ration [9]. It is recognized that the above values are closely linked to the assumption of the Sustainable Development Goals (SDGs), which provide a roadmap for transforming and reshaping the world, so that the needs of the present generation can be met in a sustainable manner, respecting the environment and taking into account the needs of future generations [24].

Nutrition is one of the fundamental factors influencing a young person's physical and mental development of and the proper functioning of the body in the future. Inadequate, excessive or poor-quality food can affect well-being and health in childhood and adolescence, and habits acquired at an early age determine adult diets and are very difficult to change [2, 22]. As civilization progresses, the lifestyles of adults, children and adolescents are changing with consequences for the health of specific population groups. As a result, knowledge about human nutrition and lifestyle factors that affect human health is constantly changing [8, 13, 19]. The Pyramid of Healthy Nutrition and Lifestyle of Children and Adolescents, recommended by the National Institute of Public Health – National Institute of Hygiene, is a simple and concise way of presenting the principles of proper nutrition and the main elements of lifestyle, the implementation of which will give children and adolescents a chance for proper development, intellectual and physical fitness and a long healthy life [13]. Undertaking research to assess the health behavior of children and adolescents is very important, as there is a high risk that the behavior adopted by children will be replicated by them in adulthood. In the published report 'Mapping of National School Food Policies across the EU28 plus Norway and Switzerland', the European Commission (EC) summarizes, among other things, the progress made by European countries in the fight against childhood obesity and their efforts to teach children healthy eating habits from an early age. The report found that all the countries surveyed have documents regulating general school nutrition policies. However, it was found that the guidelines vary from country to country, and in some countries (including Poland) they are not mandatory, but only voluntary for schools. However, the report shows that as many as 59 % of countries do not carry out any research into the effectiveness of their school food policies – the policies exist, but no one is concerned about whether they are effective or whether they contribute to improving children's health. The European Commission emphasizes the role of schools in trying to encourage children to adopt healthy eating habits so that they can grow up healthy, perform well at school and reach their full potential [16].

The aim of the study was to evaluate selected health behaviors based on the frequency of consumption of foods being a source of saturated fatty acids by children aged 11 ÷ 14 from the rural areas of the Elbląg District.

Material and methods

The study was conducted in 2022 among children (n = 114) aged between 11 and 14. There were 67 girls (58.8 %) and 47 boys (41.2 %) who participated in the study. Purposive sampling was used. The respondents were pupils of three primary schools located in the Elbląg District: Gronów Elbląski School Complex, Jegłownik Primary School and Zwierzno Primary School. The empirical research was carried out using the survey method accompanied by the indirect online interview technique.

The research conducted focused on the opinions of respondents belonging to a specific age group (11 ÷ 14 years old), but who participated voluntarily and anonymously. Parents or guardians of adolescents gave their consent for their children to participate in the study. They also confirmed that they were aware of the risk factors associated with the CAWI survey. The survey itself did not concern the health status of adolescents and was not carried out in a health unit in the broad sense. The survey was not a medical study, hence the ethics committee was not justified in commenting on the form used to collect the data.

The author's questionnaire contained closed questions. Pupils were asked to make a subjective self-assessment of their diet. Respondents who answered the question "How do you rate your diet?" could give 1 (out of 5) answers: definitely correct, rather correct, sometimes correct and sometimes incorrect, rather incorrect, incorrect.

The food frequency questionnaire was used to assess one aspect of health behavior, namely fat intake as a measure of the consumption of unhealthy food, especially in the case of overconsumption. The validated Block Screening Questionnaire for Fat Intake (BSQF) [21], as modified by Czarnocińska et al. [3], was used for the assessment. The BSQF questionnaire collected information on the usual frequency of the consumption of 13 food groups that are either separate fats or important of dietary fat [21]. Questions were asked about: burgers/cheeseburgers, red meat, fried poultry meat, wiener sausages/frankfurters, salad dressings/mayonnaise, margarine/butter, yellow/melted cheese, 3.2 % fat milk, crisps/fries/popcorn/ice cream, donuts/cakes/cookies. Five categories of frequency of consumption were used, to assign points: "less than once a month" (0 points), "once a week" (1 point), "2 ÷ 3 times a month" (1 point), "1 ÷ 2 times a week" (2 points), "3 ÷ 4 times a week" (3 points), "5 and more times a week" (4 points). Fat intake was expressed on a point scale (0 ÷ 52 points). The sum of the scores was used to distinguish: very high (> 27 pts), high (25 ÷ 27 pts), moderately high (22 ÷ 24 pts), normal (18 ÷ 21 pts), the best (< 18 pts) fat intake. In

addition, based on the sum of the BSQF questionnaire scores, subjects with fat intake were distinguished: inadequate (≥ 22 pts) and adequate (< 22 pts).

The results of the research are presented with the study group divided into girls and boys. The study used basic statistics, descriptive statistics and the number and percentage of indications. Mean, standard deviation (SD), median, mode, minimum and maximum were calculated for age, height, weight and Body Mass Index (BMI). The BMI (body nutritional status) for the adolescent study group was interpreted using the height and weight percentile tables developed as part of the national OLAF percentile tables for Polish children published by Kulaga et al [10].

Arithmetic means and standard deviations were calculated for the frequency of consumption of products that were sources of saturated fatty acids by the study group of children. The Mann-Whitney U test was used to compare the frequency of consumption of these products in the diets of boys and girls. Results were significant at p -values ≤ 0.05 . To examine the correlation between gender and body nutritional status, Spearman's rank correlation coefficient was used to examine the correlation between gender and body nutritional status. The results were significant at p -value ≤ 0.05 . A statistical analysis was performed using Statistica 13.3 (Tibco Software, Palo Alto, USA).

Results and discussion

The study group was predominantly girls with a mean age of 12.39 years (median – 12 years, modal – 13 years). The youngest participant was 11 years old and the oldest was 14 years old. The mean height of the girls was 157.93 cm, with the shortest being 135 cm and the tallest 176 cm. The average body weight of the girls was 48.74 kg, and the range of body weights was between 31.00 kg and 84.00 kg. The mean BMI of the girls was 19.48 kg/m^2 , and the range of this index was between 13.78 [kg/m^2] and 34.52 [kg/m^2] – Table. 1.

The study attempted to identify abnormal health behavior of children from the rural areas of the Elbląg District, with the intention to formulate conclusions enabling to determine actions promoting the formation of attitudes and hierarchies of health values. It was shown that the largest number (46.5 %) of the children interviewed stated that they sometimes ate right and sometimes ate wrong, with a higher percentage of boys than girls giving this answer, although the differences were not statistically significant ($p = 0.22$) – Table 1 ÷ 2. This indicates that the children have a high level of knowledge about the rational diet of their population group and are able to point out the positive and negative aspects of the diet practiced. Only 37.7 % of the children considered their diet to be rather correct, and these were more likely to be girls (Table 2).

Table 1. Characteristics of the rural children study sample

Tabela 1. Charakterystyka badanej grupy dzieci z terenów wiejskich

Assessment criteria / Oceniane kryteria	Girls / Dziewczęta	Boys / Chłopcy
Gender/ Płeć [n]	67	47
Age / Wiek [years]	12.39 ± 1.09* (12.00**; 13.00***; 11.00 ÷ 14.00****)	12.49 ± 1.10 (12.00**; 12.00***; 11.00 ÷ 14.00****)
Height / Wzrost [cm]	157.93 ± 7.95 (158.00**; 158.00***; 135.00 ÷ 176.00****)	164.47 ± 12.44 (165.00**; multiple/ wielokrotność ***; 142.00 ÷ 194.00****)
Weight / masa ciała [kg]	48.74 ± 9.81 (49.00**; 50.00***; 31.00 ÷ 84.00****)	57.87 ± 16.22 (56.00**; multiple/ wielokrotność ***; 29.00 ÷ 98.00****)
BMI [kg/m ²]	19.48 ± 3.42 (19.05**; multiple / wielokrotność ***; 13.78 ÷ 34.52****)	21.00 ± 3.77 (20.57; multiple / wielokrotność ***; 14.38 ÷ 31.11****)

Explanatory notes / Objasnienia:

n – numerical values, *mean ± standard deviation (SD), **median, ***mod, ****minimum and maximum
n - liczba wskazań, *średnia ± odchylenie standardowe; **mediana; ***moda; ****minimum - maksimum

Table 2. Subjective self-assessment of the diet of the surveyed group of children from rural areas

Tabela 2. Subiektywna samoocena sposobu żywienia badanej grupy dzieci z terenów wiejskich

Nutrition assessment Ocena sposobu żywienia	Total / Ogółem		Girls / Dziewczęta		Boys / Chłopcy		Girls v boys / Dziewczęta v chłopcy (test Chi ²)
	n	%	n	%	n	%	p
definitely correct / zdecydowanie prawidłowy	10	8.8	5	7.4	5	10.6	0.22
rather correct / raczej prawidłowy	43	37.7	31	46.3	12	25.5	
sometimes correct and sometimes incorrect / czasem prawidłowy i czasem nieprawidłowy	53	46.5	28	41.8	25	53.2	
rather incorrect / raczej nieprawidłowy	5	4.4	2	3	3	6.4	
incorrect / nieprawidłowy	3	2.6	1	1.5	2	4.3	

Explanatory notes: n - numerical values, % of indications.

Objasnienia: n - liczba wskazań, % wskazań.

The assessment of the intake of saturated fatty acids by all the children interviewed is showed in Table 3. More than half of the respondents had a low (i.e. the best) intake of saturated fatty acids including 59.7 % of girls and 38.3 % of boys. For 16.6 % of the total children surveyed, the dietary intake of saturated fatty acids was normal,

Table 3. Assessment of the intake of saturated fatty acids by the group of rural children surveyed
 Tabela 3. Ocena spożycia nasyconych kwasów tłuszczowych przez badaną grupę dzieci z terenów wiejskich

Intake of saturated fatty acids / Spożycie nasyconych kwasów tłuszczowych	Total respondents / Ogółem respondenci		Girls / Dziewczęta		Boys / Chłopcy	
	n	%	n	%	n	%
Very high intake of saturated fatty acids in the diet: total points > 27 / Bardzo duże spożycie nasyconych kwasów tłuszczowych w diecie; suma punktów >27	12	<u>10.5</u>	1	1.5	11	<u>23.4</u>
High intake of saturated fatty acids in the diet: total points from 25 to 27 / Duże spożycie nasyconych kwasów tłuszczowych w diecie; suma punktów od 25 do 27	6	5.3	5	7.5	1	2.1
Moderately high intake of saturated fatty acids in the diet: total points from 22 to 24 / Umiarkowanie duże spożycie nasyconych kwasów tłuszczowych w diecie; suma punktów od 22 do 24	19	16.6	10	14.9	9	19.2
Proper intake of saturated fatty acids in the diet: total points from 18 to 21 / Prawidłowe spożycie nasyconych kwasów tłuszczowych w diecie; suma punktów od 18 do 21	19	16.6	11	16.4	8	17
The optimum (i.e. low) intake of saturated fatty acids in the diet: total points <18 / Najlepsze, czyli małe spożycie nasyconych kwasów tłuszczowych w diecie; suma punktów <18	58	<u>50.9</u>	40	<u>59.7</u>	18	38.3
Proper amount of saturated fatty acids in the diet: total points < 22 / Odpowiednia ilość nasyconych kwasów tłuszczowych w diecie; suma punktów <22	77	<u>67.5</u>	51	<u>76.1</u>	26	<u>55.3</u>
Inappropriate amount of saturated fatty acids in the diet: total points ≥ 22 / Nieodpowiednia ilość nasyconych kwasów tłuszczowych w diecie; suma punktów ≥22	37	32.5	16	23.9	21	<u>44.7</u>

Explanatory notes: n – numerical values, % of indications.

Objaśnienia: n – liczba wskazań, % wskazań.

including 4 % of girls and 17 % of boys. A moderately high dietary intake of saturated fatty acids was found in 16.6 % of the total population studied, including 14.9 % of girls and 19.2 % of boys. In addition, a very high intake of saturated fatty acids was found in 10.5 % of all the children surveyed, affecting a higher proportion of boys (23.4 %) than girls (1.5 %). A high intake of saturated fatty acids was reported by 5.3 % of the respondents, including 7.5 % of girls and 2.1 % of boys (Table 3). In addition, based on the total score of the BSQF questionnaire, individuals with particular fat intake were distinguished: inadequate (≥ 22 points) and adequate (< 22 points). It was found that 67.5 % of all the children surveyed had an adequate intake of saturated fatty acids. This intake was the case for: 76.1 % of girls and 55.3 % of boys. An inadequate dietary intake of saturated fatty acids was found in 32.5 % of the respondents, including a higher proportion of boys (44.7 %) than girls (23.9 %) (Table 3).

Saturated fatty acids are fats of animal origin – they are found in butter, fatty dairy products (cheese, cream), egg yolk, meat, offal or lard. Trans fatty acid isomers are a product of the hydrogenation of vegetable oils. They are therefore found in hard margarines, confectionery, sweet and salty snacks, fast food (burgers, breaded chicken patties and nuggets, French fries). If a product lists hydrogenated or palm fat in its formulation on the packaging, it can largely be assumed that it is trans fat [6]. The Dietary Guidelines for the Polish Population [6] recommend that the intake of saturated and trans fatty acids should be as low as possible, while ensuring the nutritional value of the diet. In the case of saturated fats, the maximum intake for a group of children should be up to 10 % of the daily energy requirement. The rest of the energy needs should be met by unsaturated fats of vegetable origin, such as those found in marine fish, seafood or algae.

Research into the effects of the consumption of saturated fats and trans-isomers by children and adolescents has confirmed that these substances are responsible for a general increase in cholesterol, LDL fraction cholesterol and diastolic blood pressure. In order to prevent cardiovascular disease and thus increased mortality, the intake of the above-mentioned groups of fats should be as low as possible [4]. Our own study showed that 67.5 % of children consumed the adequate amount of saturated fatty acids (76.1 % of girls and 55.3 % of boys) and an inadequate amount of 32.5 % of children consumed the inadequate amount (44.7 % of boys and 23.9 % of girls) – Table 3. The results of our own study are optimistic, as children (especially girls) do not consume too many products high in saturated fats on a daily basis (Table 4 ÷ 6). According to Stachura et al. [20], the average proportion of saturated fatty acids in the diet of students aged 16 ÷ 18 was also low, standing at 11.2 %. A worrying phenomenon ob-

served among adolescents is the irregular consumption of meal [11, 12]. Poor eating habits, including the consumption of food containing saturated fats, may contribute to rapid weight gain of children, which is quite often associated with obesity in later life [18].

The assessment of the frequency of consumption of products being a source of saturated fatty acids by all the respondents is presented in Table 4. The products containing saturated fatty acids that were consumed most frequently by the students (without gender breakdown) were: margarine or extra butter (3.28 pts on average), eggs (2.99 pts on average), whole milk (2.82 pts on average), processed and yellow cheeses (2.80 pts on average), and donuts, cakes, biscuits and other confectionery (2.69 pts on average). On the other hand, the following foods were eaten the least often by the students: sausage products (fatty sausages/pâté/black pudding/mincemeat/bacon and wieners/frankfurters/ cabanos sausages) (1.60 pts on average), pizza/casserole (gratin)/lasagna/ hamburger (1.71 pts on average) and beef/steaks/roasts, ready meals (1.98 pts on average) (Table 4). When analyzing the consumption of products that are sources of dietary intake of saturated fatty acids by girls and boys, it was found that the gender of the respondents influenced the type of food chosen to be consumed. Significantly different consumption frequencies between girls and boys were observed for beef, steaks, roasts ($p = 0.01$), fried chicken or turkey ($p = 0.01$), salad dressings and mayonnaise ($p = 0.02$), processed and yellow cheese ($p = 0.03$) and donuts, cakes, biscuits and other confectionery ($p = 0.04$) (Table 4). Boys were significantly more likely than girls to report the consumption of these products (Table 4).

The results of their research are consistent with those of other authors who found that students in Poland have an average level of healthiness in their eating behavior [5, 15, 26], they eat irregularly and irrationally, they consume too little vegetables, fruit and dairy products and too much meat and fast food [5, 14]. According to Wądołowska et al. [22], nutrition and lifestyle education at school for almost the entire next year can reduce abdominal obesity in preschool children, despite a decrease in physical activity and a tendency to increase screen time. A reduction in this type of obesity can therefore be attributed to an improvement in the nutritional knowledge of children and adolescents receiving education and to the prevention of the development of abnormal eating habits [22]. It is important to remember that noncommunicable diseases (NCDs) are the leading cause of death worldwide, with cardiovascular diseases being the most common [1, 23]. Cardiovascular diseases are multifactorial. Non-modifiable factors include age, gender and ethnicity [7]. Modifiable factors include smoking, alcohol consumption, physical inactivity, poor dietary habits including high salt and saturated fat intake and low fruit and vegetable intake [17, 25]. Among the modifiable factors, reducing fat intake, especially saturated fat, is the main issue that can and should be addressed.

Table 4. Frequency of consumption of products that are sources of saturated fatty acids by the surveyed group of children from rural areas

Tabela 4. Częstość spożycia produktów będących źródłem nasyconych kwasów tłuszczowych przez badaną grupę dzieci z terenów wiejskich

Products/ Produkty	Frequency of consumption / częstość spożycia						p*
	Overall / Ogółem		Boys / Chłopcy		Girls / Dziewczeta		
	mean / średnia	SD	mean / średnia	SD	mean / średnia	SD	
Pizza, casserole, lasagna, hamburger / Pizza, zapiekanka, lasagne, hamburger	1.71	0.69	1.81	0.71	1.64	0.67	0.25
Beef, steak, roast / Wołowina, steki, pieczeń	1.98	1.14	2.36	1.33	1.72	0.90	0.01
Fried chicken or turkey / Kurczak lub indyk smażony	2.61	1.13	2.98	1.13	2.34	1.05	0.01
Sausages, frankfurters, cabanos sausages / Parówki, frankfurterki, kabanosy	2.27	1.16	2.60	1.19	2.04	1.09	0.02
Fatty sausages, pate, blood sausage, minced meat, bacon / Tłuste wędliny, pasztetowa, kaszanka, mielonki, bekon	1.60	0.98	1.81	1.14	1.45	0.82	0.13
Salad dressings, mayonnaise / Sosy do sałatek, majonez	2.10	1.18	2.28	1.38	1.97	1.01	0.46
Margarine or butter / Margaryna lub masło extra	3.28	1.56	3.30	1.62	3.25	1.53	0.92
Eggs/ Jaja	2.99	1.13	3.13	1.13	2.90	1.13	0.32
Processed and yellow cheese / Topione i żółte sery	2.80	1.29	3.13	1.33	2.57	1.22	0.03
Whole milk (3 %) / Pełne mleko (3 %)	2.82	1.43	3.06	1.41	2.66	1.43	0.14
French fries and potato chips / Chipsy i frytki ziemniaczane	2.17	1.09	2.23	1.09	2.12	1.09	0.52
Ice cream / Lody	2.07	1.13	2.17	1.17	2.00	1.10	0.42
Donuts, cakes, biscuits, wafers and other confectionery / Pączki, ciasta, ciastka, wafelki i inne wyroby cukiernicze	2.69	1.27	3.00	1.32	2.48	1.20	0.04

Explanatory notes/ Objasnienia: *U-Manna Whitneya

Table 5. Eating behavior followed – boys v body nutritional status (Spearman's rank correlation)

Tabela 5. Realizowane zachowania żywieniowe – chłopcy v stan odżywienia (korelacja rang Spearmana)

Boys v body nutritional status / Chłopcy v stan odżywienia	R Spearman
Observed health behavior - I eat my last meal no later than 2 hours before bedtime / Przestrzegane zachowania zdrowotne – ostatni posiłek spożywam nie później niż 2 godziny przed snem	0.33
Products consumed at school - healthy meal prepared at home or other healthy products / Produkty spożywane w szkole – zdrowy posiłek przygotowany w domu lub inne zdrowe produkty	-0.47
Products consumed at school - I get money and make my own choices / Produkty spożywane w szkole – dostaję pieniądze i samodzielnie dokonuję wyboru	0.40
Frequency of consumption - topione i żółte sery / Częstość spożycia - topione i żółte sery	-0.32
Frequency of consumption – milk 3 % / Częstość spożycia - mleko 3 %	-0.39

In the boys' group, a statistically significant correlation ($p \leq 0.05$) was observed between body nutritional status and one of the dietary behavior they tried to follow on a daily basis: last meal eaten no later than 2 hours before bedtime and products eaten at school (food bought at school independently with money received) – Table 5. In the study group, there was a statistically significant weak negative correlation ($p \leq 0.05$) (Spearman's rank correlation) between the gender and the intake of selected fat-determining foodstuffs such as beef, chicken, sausage and cheese, and a weak positive correlation ($p \leq 0.05$) between the body nutritional status and the intake of cold cuts (Table 6). The results of our own study are in line with those of other authors who found that students in Poland had an average level of eating behavior [5, 11, 15]. They ate irregularly and irrationally, consuming too little vegetables, fruit and dairy products and too much meat and fast food [5].

Table 6. Consumption of selected products ν body nutritional status (Spearman's rank correlation)
Tabela 6. Spożycie wybranych produktów a stan odżywienia (korelacja rang Spearmana)

Food products / Produkty spożywcze	Gender / Płeć	Body nutritional status / stan odżywienia
Pizza, casserole, lasagna, hamburger / Pizza, zapiekanka, lasagne, hamburger	-0.12	-0.01
Beef, steak, roast / Wołowina, steki, pieczeń	-0.24	0.08
Fried chicken or turkey / Kurczak lub indyk smażony	-0.26	0.11
Sausages, frankfurters, snack stick sausages / Parówki, frankfurterki, kabanosy	-0.24	0.04
Fatty sausages, pate, blood sausage, minced meat, bacon / Thuste wędliny, pasztetowa, kaszanka, mielonki, bekon	-0.17	0.26
Salad dressings, mayonnaise / Sosy do sałatek, majonez	-0.07	0.09
Margarine or butter / Margaryna lub masło extra	0.00	-0.12
Eggs / Jaja	-0.10	0.06
Processed and yellow cheese / Topione i żółte sery	-0.21	-0.09
Whole milk (3 %) / Pełne mleko (3 %)	-0.14	-0.14
French fries and potato chips / Chipsy i frytki ziemniaczane	-0.06	-0.08
Ice cream / Lody	-0.08	0.10
Donuts, cakes, biscuits, wafers and other confectionery / Pączki, ciasta, ciastka, wafelki i inne wyroby cukiernicze	0.02	0.11

An analysis of the postulates contained in the Sustainable Development Goals confirms that they serve, among other things, to ensure food safety and food security. This means that they aim to develop and maintain, or contribute to the development of, specific trends in food consumption. The links between the Sustainable Development

Goals and food safety and/or food security issues include: 1. ensuring healthy lives for all at all ages and promoting well-being, i.e. "we must continue to work harder to overcome the incidence of many diseases and emerging health risks"; 2. ensuring quality education for all and promoting lifelong learning, because "quality education is the foundation for improving people's lives and for sustainable development. Universal access to education improves the quality of life and makes it possible to find innovative solutions to the major problems facing the world today" [24]. Education at various levels on the principles of good nutrition and food hazards increases consumer awareness and safety.

The relationship between knowledge and health behavior is the subject of much research and discussion, as declared knowledge is only partly translated into specific behavior. Finding out about the health behavior of children from rural areas, checking their knowledge of the basic principles of nutrition of their population group, will make it possible to modify their lifestyles, which can reduce the development of diseases with a nutritional basis.

Conclusions

1. The study group of children from rural areas of the Elbląg District showed an average level of health behavior exemplified by fat intake as a measure of unhealthy food consumption.
2. The results of the study presented here are limited by the small sample size. However, the analysis of the consumption of foods high in saturated fat by girls and boys showed that the gender of the respondents influenced the type of food chosen. A statistically significant weak positive correlation ($p \leq 0.05$) was also observed between the children's gender and the type of products being sources of saturated fatty acids, consumed by the children. The frequency of consumption of beef, steaks, roasts, fried chicken or turkey and salad dressings and mayonnaise was significantly different between girls and boys

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ZACHOWANIA ZDROWOTNE DZIECI Z TERENÓW WIEJSKICH POWIATU ELBLĄSKIEGO (W POLSCE) NA PRZYKŁADZIE SPOŻYCIA TŁUSZCZÓW: STUDIA PILOTAŻOWE

Streszczenie

Wprowadzenie. Zachowania zdrowotne stanowią jeden z najważniejszych czynników determinujących zdrowie człowieka. Wraz z postępowaniem cywilizacyjnym styl życia osób dorosłych, dzieci i młodzieży zmienia się i ma swoje konsekwencje również w odniesieniu do zdrowia poszczególnych grup populacyjnych. Stąd też wiedza o żywieniu człowieka i czynnikach związanych ze stylem życia, które wpływają na zdrowie człowieka, także podlega ciągłym zmianom. Celem badań była ocena wybranych zachowań zdrowotnych na przykładzie oceny częstości spożycia żywności stanowiącej źródło nasyconych kwasów tłuszczowych przez dzieci z terenów wiejskich. Metodą częstości spożycia żywności oceniono jeden z aspektów zachowań zdrowotnych jakim jest spożycie tłuszczów jako miernika spożywania żywności niesprzyjającej zdrowiu, zwłaszcza w przypadku jej nadkonsumpcji. W ocenie wykorzystano zwalidowany kwestionariusz przesiewowy Block do oceny spożycia tłuszczów (Block Screening Questionnaire for Fat Intake - BSQF).

Wyniki i wnioski. Badana grupa dzieci z terenów wiejskich powiatu elbląskiego (w Polsce) wykazywała przeciętny poziom zachowań zdrowotnych na przykładzie spożycia tłuszczów. Dalsze prowadzenie badań monitorujących prozdrowotne postawy i zachowania dzieci z terenów wiejskich jest użyteczne i zasadne ze względu na diagnozę czy konieczne jest podejmowanie działań propagujących kształtowanie postaw i hierarchii wartości zdrowotnych. W świetle wyzwań Celów Zrównoważonego Rozwoju (CZR)

ważne są potrzeby i trendy o charakterze hedonistycznym, m.in. łączące się z kwestią zapewnienia zdrowia i większej dbałości o kondycję psychiczną i fizyczną dzieci i osób dorosłych (rodziny).

Słowa kluczowe: dzieci, zachowania zdrowotne, zrównoważony rozwój, tłuszcze ☒