

A STUDY ON FOOD CONSUMPTION AND NUTRITIONAL STATUS OF STUDENTS AT A PUBLIC SCHOOL IN SALVADOR, BA

Jailda Santos Felix Saraiva

Nutrition student - `` Universidade Estadual da Bahia `` (UNEB)

Iasmin Lino Silva

Nutrition student - `` Universidade Estadual da Bahia `` (UNEB)

Maria Jaqueline da Paixão Barros

Nutrition student - `` Universidade Estadual da Bahia `` (UNEB)

Debora Santa Mônica Santos

Professor from the Department of Life Sciences - DCV/Nutrition Course/ `` Universidade Estadual da Bahia ``

Jean Márcia Oliveira Mascarenhas

Professor from the Department of Life Sciences - DCV/Nutrition Course/ `` Universidade Estadual da Bahia ``

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: Introduction: The dietary pattern is a crucial point in the life of human beings, it is through it that it is possible to understand how they are eating. Therefore, it is necessary to assess the nutritional status, which must be carried out according to the age group, food consumption and the lifestyle of each individual. In this sense, the school environment has proven to be a place of excellent opportunities, enabling the formation of healthy eating habits during students' stay in that space. Furthermore, the school must be a gateway and an incentive for food and nutritional education for students, through healthy eating practices and the adoption of an active lifestyle, respecting the subject's autonomy, regional culture, food sovereignty, as well as such as the importance of access to adequate food in quality and quantity. Objective: To evaluate the food consumption and nutritional status of students at a public school in Salvador-BA. Methods: This is a field research, collecting primary data (Weight, Height, Body Mass Index diagnosis and Waist Circumference) and markers of food consumption measured through the application of the Ministry of Health form. Research is based on a convenience sample; this technique is very common and consists of selecting a sample of the studied population that is accessible and has availability/interest in participating in the study. Students were invited to this research randomly, selected on average of 10 students per class from the 6th, 7th, 8th and 9th year of elementary school II. In this selection, there was no distinction regarding ethnicity, family income, gender, age or any type of illness to participate in the study. The results obtained were tabulated to demonstrate the graphs and tables. Results and discussion: in relation to foods considered healthy markers, it was found that 90.3% of participants used electronic devices during meals, 61.1% consumed beans, 58.3% ate

fresh fruit and 48.6% consumed vegetables the day before. In relation to ultra-processed foods, the hamburger and/or sausage group was consumed by 41.7%, with the intake of sweetened drinks being observed in 70.8%; instant noodles registered at 58.3% and stuffed biscuits were consumed by 66.7% among those interviewed. These data show that half of the public had the habit of consuming fruits and vegetables, however the presence of ultra-processed foods was observed significantly and may be contributing to the 10% prevalence of overweight and 9% of obesity among the target audience. Considering that half of the participants consumed fruit, it would be appropriate in the future to quantify this consumption pattern to better understand it. Another aspect that can favor weight gain would be the lack of regular physical and sporting activity. Final considerations: In view of the analysis of the findings, it is important to understand that food choices can directly influence students' quality of life. Even though healthy foods are present in half of those interviewed, we emphasize that the school can increase this result by adopting practices that stimulate and form healthy eating habits, aiming to improve lifestyle. Weight gain may be associated with a sedentary lifestyle, excessive use of electronic media during meals, as well as the consumption of ultra-processed foods, highlighted in this study. Therefore, the school must encourage the formation of healthy eating habits on a daily basis, with playful strategies, systematic training on food and nutritional education and the provision of healthy foods in school meals. It is expected that stimulating everyday life with examples and educational actions can effectively contribute to better food choices and, consequently, to improving the quality of life of the school community.

Keywords: Food, anthropometry, health, school, adolescence.

INTRODUCTION

Food is an innate action of any living being and eating properly has been one of today's greatest challenges, given that the supply of fast foods, with high energy value and few nutrients can be present inside and outside homes and schools. The study of human nutrition is essential and makes it possible to understand, through the analysis of daily practices, values, meanings and representations that demonstrate how social groups organize themselves and how they are eating. According to Abílio and Guerra (2005), the school, given the importance it plays in the process of social, cultural, human and ethical formation of society, presents itself as one of the most favorable places for the development of activities with an educational and collective focus. related to health and the environment in which we live.

In this context, throughout their lives, overweight and obese people can suffer serious psychological, cardiovascular, endocrine and reproductive consequences. In children and adolescents, this disease is the result of genetic, individual, behavioral and environmental factors, present in family, community, school, social and political contexts. In 2022, the Unified Health System (SUS) monitored more than 4.4 million adolescents between 10 and 19 years of age, according to the Food and Nutritional Surveillance System of the Ministry of Health, of this total, almost 1.4 million were diagnosed overweight, obese or severely obese (MS, 2022).

Considering that 2.8 million young people monitored by Primary Health Care have a healthy nutritional status, the overweight numbers worry managers. The SUS, in the South region, detected obesity in around 13.13% of the adolescents monitored, this being the highest rate in the country. Next come the Southeast regions, with 11.48%; Midwest, with 10.91%; Northeast, with 8.25%;

and North, with 7.4%. The South region is also the one with the highest number of young people in this age group with severe obesity, 4.33%, that is, almost 25 thousand adolescents (MS, 2022).

Among the reasons for this increase, behavioral factors can be cited, such as the lifestyle that the individual leads, when sedentary and with excessive consumption of high energy density foods, many of them, especially teenagers and young people, seek to eat their meals associating to greater practicality, often opting for a more frequent consumption of industrialized, ultra-processed foods or ready-to-eat foods for daily consumption, practical and quick-to-prepare dishes, popularly known as *fast food*. According to Aguiar 2023, non-essential foods are those rich in calories and poor in nutrients, such as *fast foods*, sugary drinks and snacks, while essential foods are those that have high nutritional density and belong to the main food groups recommended by dietary guidelines, such as vegetables, fruits and whole cereals.

On the other hand, without realizing it, individuals adopt inadequate food choices and a set of attitudes, which together with eating most meals in front of TV screens, which often present a series of advertisements that encourage the consumption of ultra-processed and *Fast foods*, as well as frequent use of cell phones, computers, notebooks, tablets, among other electronic devices, can be harmful to health.

In this scenario, it is believed that excessive time spent watching Television (TV) and other types of devices may be an important marker for identifying low levels of physical activity and also unhealthy eating practices. The study carried out by Álvarez et al. (2022), observed that individuals who spent more time on social networks consumed a high level of meat and fats, in addition to insufficient intake of dairy

products, vegetables, fruits and cereals.

In view of this, it is of great importance to know the pattern of food consumption, both individual and collective, as this allows better guidance for individuals and the implementation of comprehensive health care actions, as well as the construction of policies and programs that can help to promote an improvement in the dietary and nutritional profile of the population, especially children and adolescents at school. Access to information and dissemination of individuals' health status can be one of the ways to prevent future diseases that can affect young people, adults and the elderly. This is necessary, as the future is built in the present.

Considering that the food consumption markers used in Primary Health Care (PHC) in Brazil is a tool launched by the Ministry of Health (MS) that allows the assessment of the food consumption of the Brazilian population quickly, simply and enables the identification of practices healthy and unhealthy foods (BRAZIL, 2015), being a method already validated and therefore indicated for the study.

Furthermore, in the area of education, the PNAE – National School Food Program – was created in 1979, a program that aims to contribute to growth and biopsychosocial development, learning, school performance and the formation of healthy eating habits among students, through food and nutritional education and the provision of meals that cover their nutritional needs during the school period. Currently, PNAE serves approximately 40 million students daily in around 150,000 schools across the country. The financial transfer is divided into up to ten installments, from February to November of each year, and corresponds to 20 school days per month. The calculation of the resources to be transferred takes into consideration, the number of days of service, the number of students enrolled in each network or educational unit and the

respective BRAZIL per capita. 2023).

To this end, schools need to have a technical team prepared to operate this program in order to help improve kitchen conditions, in the selection of foodstuffs and in the preparation and offering of healthy meals, which are so important for the health of the population. school community.

Therefore, this work aimed to evaluate food consumption and nutritional status, based on measuring weight and height to identify the Body Mass Index (BMI), and measure the waist circumference (WC) of students in a public school in the city of Salvador-Ba.

These data will allow us to understand the nutritional situation and lifestyle of these students at school and may contribute to the formulation of guidance for actions that can improve the health of students in this space. After collecting the data, it will be analyzed and the results will be published and shared, serving as a basis for providing information to participants and other members of the school community and other schools that are interested in experiencing these experiences and transformations.

In view of the above, including food and nutritional education in school actions becomes fundamental for the development of students in a more complete way, making them more aware and critical citizens of issues related to their existence, consumption and food choice, as well as environmental sustainability. Therefore, working on food education and the environment in the school context means talking about an education that goes beyond the contents of basic education subjects, giving it a new dimension, contextualized and adapted to the interdisciplinary reality and linked to relevant themes at local, global and existential level.

MATERIAL AND METHODS

This is a descriptive research, which aims to characterize and describe the characteristics and indicators obtained in the studied population. Students from the public school at Colégio Estadual Governador Otávio Mangabeira, Salvador – BA, located at Rua Beco da Coruja, 15 - Saboeiro, Salvador - BA, 41180-710, participated in this research, whose target audience for this study is students from the school, including an average of 10 students from the 6th, 7th, 8th and 9th years, data collection was carried out during one day of the week in both shifts: morning and afternoon.

The sample was made up of 70 students, aged between 11 and 18 years old, from a total of 559 enrolled students, distributed between 41.7% young females and 58.3% young males, who were invited by the school management to participate in the study and later returned to their classroom activities. Next, the nutritional status was analyzed, along with the application of food consumption using the Ministry of Health's consumption marker form.

For this study, there was no distinction regarding ethnicity, race, color, gender, age or the presence of any type of disease in the study participants. The exclusion criteria were absent students, those who did not want to participate voluntarily or those who could not interrupt the activities carried out at the time of data collection.

This is a random sampling carried out for convenience, based on the participation and presence of students on the days of data collection. The study was conducted with the consent of the school's management and pedagogical body with clarifications and signing of a term of responsibility: The Free and Informed Consent Term (TCLE) which was signed by the student and another signed by the student's guardian. This document was shared and explained before the start of

the study and after reading by each student. After this stage, data collection, analysis, interpretation of findings and publication will be carried out.

Anthropometric data were collected, such as: Weight (P), Height (H), Body Mass Index (BMI) and Waist Circumference (WC). BMI was determined by the ratio of body mass in kilograms to the square of height in meters. The following classification was adopted with BMI Percentile for age below 5: adolescent with low weight (thinness), BMI Percentile for age greater than or equal to 5 and less than 85: adolescent with adequate weight (eutrophic) and BMI Percentile for age greater than or equal to 85: overweight adolescent (Technical Standard for Food and Nutritional Surveillance – SISVAN, 2004).

According to the literature, children with a body fat percentage greater than 33% and a WC greater than 71 cm are more predisposed to cardiovascular risk. With less than 20% fat and less than 61 cm WC, the risk is minimal, (Manual of Nutritional Assessment and Energy Needs of Children and Adolescents, 2012). Measurements were taken with the aid of an electronic scale, model P150 M, a manual stadiometer measuring height in a vertical position with a measuring range ranging from 50 to 215 cm, and an inelastic tape (PrimeMed) with resolution in millimeters to measure WC., measured at the umbilical scar with participants breathing normally and their abdomen relaxed. The assessment of participants' food consumption was carried out through the application of the Ministry of Health's (MS) food consumption marker form, in which dietary data are related to the main food groups consumed, divided between foods classified as healthy markers and unhealthy markers. healthy, therefore harmful to health, just as the behavior of eating meals while watching television and other electronic devices is present in the

routine, the number of meals eaten per day and the consumption of the following foods on the previous day are observed, where the answers could be “yes”, “no” or “don’t know”:

a) Healthy consumption markers: beans; fresh fruit (fruit juice was not considered); and vegetables and/or legumes (potatoes, cassava, cassava, cassava, yam and yam were not considered). b) Unhealthy consumption markers: hamburgers and/or sausages (ham, mortadella, salami, sausages); sweetened drinks (soda, boxed juice, powdered juice, boxed coconut water, guarana/currant syrups, fruit juice with added sugar); instant noodles, packaged snacks or savory crackers; filled biscuits, sweets or treats (candies, lollipops, gum, caramel, gelatin).

It is worth mentioning that this article is part of the scientific production of the School Food Garden Project with approval and registration with the Ethics Committee of “Universidade Estadual da Bahia” – UNEB, CAAE Nº: 39464520.0.0000.0057, through registration on “Plataforma Brasil”. The data after analyzing the distributions will be presented in tables and graphs.

RESULTS AND DISCUSSION

It is noted that in the assessment of food consumption, which was structured according to the form of food consumption markers applied, that the use of electronic devices during meals is present in 90.3% of the students interviewed, with only 0.7%, that is, less than 1% of the sample did not have the habit of using electronic devices during meals. In a study carried out by Oliveira et al. (2016) there was high exposure to screens and the notable custom of eating meals and consuming snacks in front of them by Brazilian teenagers. Considering that adolescence is a transition phase from childhood to adulthood and is between 10 and 19 years old (MS, 2012), the majority of students in the study

are in this phase, a stage marked by growth, development and also uncertainty. and doubts about choices.

Thus, eating meals using electronic devices that divert focus and attention from food, from eating, essential attention to help maintain chewing regularity, essential for good digestion and recognition of signs of hunger and satiety and familiarization with the food, may be harmful to health.

Screens have occupied a prominent place in the family environment, leading to profound changes in the population’s lifestyle. Traditional habits of family gatherings around the table have been replaced by modern habits of eating in front of screens, leading people, in general, to not pay attention to whoever is next to them and what they consume and to not chew on food. appropriately (OLIVEIRA et al., 2016).

Therefore, the number of hours spent watching television and cell phones is affecting the way people eat, and this is directly related to the consumption of unhealthy foods, which occurs as a result of exposure to a series of content that encourages the consumption of food. ultra-processed foods, in addition to diverting attention from important eating processes, which range from choosing food, involving chewing, digestion and the perception of signs of hunger and satiety that are necessary for nutrition and good digestive health.

In this context, excessive time in front of screens is considered a risk factor for the development of excess weight at all stages of life. The habit of watching TV can affect weight when associated with the absence of physical activity, which combined with a greater consumption of obesogenic foods during time spent watching television (OLIVEIRA, 2016) is a set of factors that are potential determinants of overweight and obesity.

Additionally, the distraction caused by screens interferes with the physiological signals

of hunger and satiety, leading to inadequate food choices with exacerbated consumption of products with high caloric content and low nutritional content (OLIVEIRA, 2016) and also in opposite situations such as malnutrition due to not being able to eat. eating correctly by spending most of the time in front of television screens, cell phones, the excessive use of digital devices not only during meals, but throughout the day are influencing and compromising the choice and use of healthy foods, are taking away from young people of face-to-face and sensory experiences that are so important in life.

Considering the food groups analyzed, those with the highest prevalence were sweetened drinks, which were consumed by 70.8% of students, followed by stuffed biscuits, sweets or sweets 66.7%, instant noodles, packaged snacks or savory biscuits 58.3%, hamburgers and sausages by 41.7%, demonstrating a high consumption of ultra-processed foods, which trigger health risks, as they have a high sodium, fat and sugar content necessary to enhance the flavor and extend the shelf life of the products.

Aiming to guide the population in general about the risks of these products, the Ministry of Health published the Food Guide for the Brazilian Population, which highlights that ultra-processed foods tend to be very poor in fiber, vitamins, minerals, photochemicals and nutrients that are essential in prevention. of various heart diseases and conditions, diabetes and various types of chronic diseases, including cancer (BRAZIL, 2014).

Vegetables, roots and tubers, were consumed by 48.6% of the students interviewed. In relation to beans, this percentage was significant, as it was observed in 61.1% of participants, but it could be greater given the importance of beans as a source of iron and fiber and when combined with rice results in a set of essential amino acids. to human health,

the consumption of fresh fruit was in 58.3% of the studied population, that is, almost 60% of students consume fruit, however, as the quantity and frequency were not verified, it is not possible to say that they are ingesting the minimum amount of 400g/day per day, around five servings recommended by the WHO – World Health Organization.

When comparing the results regarding food consumption, the high consumption among students of sweetened drinks by the vast majority (70.8%) is notable, being the group, most consumed the day before the interview, presenting a consumption of foods with a high content of sugar and low consumption of fresh food, which are excellent health regulators and essential for students' developmental growth. A high consumption of industrialized and ultra-processed products was observed, foods that have a harmful composition due to the high content of sodium, sugar, saturated fat, as well as preservatives, flavorings and other substances not digested by the human body and, when consumed for a long period, can lead to various health problems such as overweight, obesity, diabetes, hypertension, and other health problems.

Consumption marker	n	%
Habit of eating using electronic devices (TV, cell phone, computer, tablet, etc.)	65	90,3
Bean	44	61,1
Fresh fruit (do not consider fruit juice)	42	58,3
Vegetables and/or legumes (do not include potatoes/cassava/yams/yams)	35	48,6
Burger and/or sausages (ham, mortadella, salami, sausage and sausage)	30	41,7
Sweetened drinks	51	70,8
Instant noodles, packaged snacks or savory crackers	42	58,3
Filled biscuit, sweets or treats (candies, lollipops, gum, caramel and gelatin)	48	66,7

Table 01: Numerical and percentage distribution of food consumption of students at the public school in Salvador-Ba in 2023.

On the other hand, the frequency and quantity that these foods were consumed were not assessed, so it would be necessary to know the quantity consumed by the participants to better assess their intake of healthy and unhealthy foods. Since the recommendation is that each individual must have an intake equivalent to five servings/day (giving around three of fruits and three of vegetables on average per day, varying according to the types of vegetables and weight of each person). According to the results obtained, consumption in this population is considered low.

In the study carried out by Silva et al. (2022) which sought to identify the prevalence and factors associated with the consumption of ultra-processed foods in Brazilian adolescents, approximately three out of every four adolescents presented excessive consumption of ultra-processed foods (UPF). Silva et al. (2022), identified nine factors associated with this result, eight of which were risk factors (age under 15 years old, daily time spent sitting for more than four hours, eating while watching TV or studying for more than four days a week, daily time spent using TV for more than three hours, breakfast frequency less than four days a week, having a cell phone, studying in a private school located in an urban area) and one of protection (absent maternal education), that is, a family whose mothers and fathers have a higher degree of education and information does not protect young people, on the contrary it does not protect them, because in most cases, in addition to buying electronic devices, many work outside the home and do not control the usage time of teenagers and children and this is a negative factor.

Risk of metabolic complications	Students n (%)
Without risk	83,3 %
With Risk	11,7 %

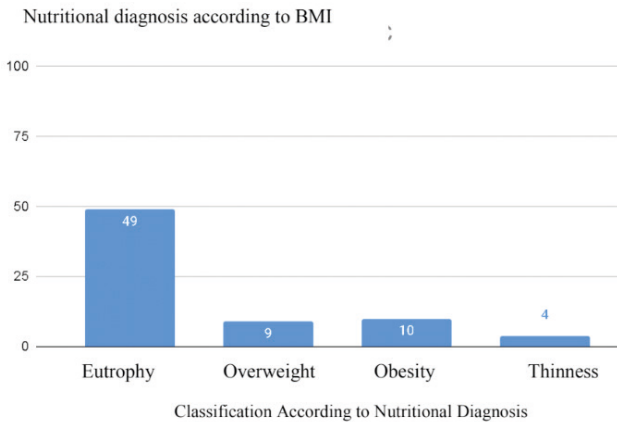
Table 02: Classification of waist circumference according to the gender of students and of a public school in Salvador-Ba in 2023

Analyzing the anthropometric data regarding WC (Waist Circumference) or abdominal circumference in table 2, according to Freedman et al. (1999) the classification is carried out according to age and gender, it can be seen that there is a high risk in 11.7% of students in developing metabolic complications in both sexes.

Considering that abdominal circumference indirectly reflects central adiposity and its complications, showing a good correlation with the development of dyslipidemia, arterial hypertension and insulin resistance (Alves, 2017) and that the majority of students (83.3%) are at no risk of developing metabolic complications, this reflects positively on the school community. According to Pitrez Filho et al. (2012) genetic factors, such as ethnicity, are relevant in the development of metabolic, cardiovascular and inflammatory diseases.

According to the Manual for Nutritional Assessment and Energy Needs of Children and Adolescents, with regard to Abdominal Circumference (WC), this measurement is most used among adults as a tool for assessing cardiovascular risk. However, due to the increasing prevalence of childhood obesity, AC can be used to assess the concentration of abdominal fat. However, due to the scarcity of studies associated with the variation in physical growth in each age group, there is no specific cutoff point for children and adolescents, and the values proposed by Freedman and collaborators (1999) are often used.

However, it is believed that children with a body fat percentage greater than 33% and a WC greater than 71 cm are more predisposed to cardiovascular risk. With less than 20% fat and less than 61 cm WC, the risk is minimal (ABESO 2009). Therefore, it is suggested that the evolution of the measure be valued much more than the use of a specific cutoff point.



Graph 01: Prevalence (%) of eutrophy, overweight and obesity (Grades 1, 2 and 3) according to the BMI of students at a public school in Salvador-Ba in 2023.

The students were evaluated following the same parameters (W, H, BMI and WC) and the nutritional diagnosis was established using the ANTHRO PLUS application made available by the World Health Organization (WHO), which analyzes data from children aged 5 to 19 years old. age and the following results were found: 49% of students are eutrophic (appropriate weight for height), 10% are obese, 9% are overweight and 4% are thin as shown in graph 01 above.

The changes found in the nutritional diagnosis of adolescents (overweight and obesity) can be attributed to lifestyle habits and dietary choices, such as: consumption of food in front of screens, high consumption of hypercaloric ultra-processed foods rich in sugar, salt and preservatives, low consumption of fresh and natural foods, regulators. The frequency and quantity of consumption of

these foods can promote weight gain.

A percentage of 10% of students with obesity and 9% with overweight are percentages considered worrying and may be related to several factors, such as: inadequate food choices, consumption of ultra-processed foods, advertising through different forms of media, excessive use of screens together with the sedentary lifestyle observed through lack of physical activity. Obesity and overweight are considered an important public health problem in developed and developing countries. In Brazil, a rapid increase in prevalence in adulthood has been described, but data on prevalence in adolescents are scarce, making it important to carry out more research.

Another important data from this study is the prevalence of malnutrition observed in 4% of students, as malnutrition among children and adolescents aged 0 to 19 grew in Brazil between 2015 and 2021, affecting young black people more seriously.

According to the Overview of Obesity in Children and Adolescents, released by the Desiderata Institute (2019), there has been an increase in hunger in recent years, leading to malnutrition in all age groups, from 0 to 19 years of age. Malnutrition among children aged 0 to 19 grew in Brazil between 2015 and 2021, affecting black boys more seriously. According to the Panorama of Obesity in Children and Adolescents, released today (26), by the Desiderata Institute, there has been an increase in hunger in recent years, leading to malnutrition in all age groups, from 0 to 19 years of age. According to the survey, the malnutrition rate fell from 5.2% in 2015 to 4.8% in 2018, increasing from that year onwards in all age groups monitored by the Unified Health System (SUS). In 2019, this rate rose to 5.6%, reaching 5.3% in 2021, so this data is close to the prevalence found in this study.

According to the survey, the malnutrition rate fell from 5.2% in 2015 to 4.8% in 2018, increasing from that year onwards in all age groups monitored by the Unified Health System (SUS). In 2019, this rate rose to 5.6%, reaching 5.3% in 2021.

In the study carried out by Silva et al. (2022) in relation to nutritional status, it was found that 2.2% were underweight, 63.6% were eutrophic and 34.2% were overweight. This way, it is observed in the results that there is a prevalence of eutrophic individuals (those who are within normal standards) and in parallel a revelation also in the prevalence of excess weight.

It was found in the studied population that 49% of the population are eutrophic, without changes, within the normal standard, however this percentage reveals that half of the student population are making unhealthy choices, totaling 19% are overweight and obese, this may be influenced by poor choices and bad eating habits. This data reveals a worrying diagnosis that needs to be further evaluated and discussed with the school community, to think about educational strategies and actions that can contribute to changing this reality.

The WHO estimates that, in three years, the number of obese children on the planet will reach 75 million. In Brazil, data from the Brazilian Institute of Geography and Statistics (IBGE) indicate that one in every three children, aged between 5 and 9, is overweight in the country, as well as 7% of adolescents aged between 12 and 17. years are obese (IBGE, 2022) and the main dietary cause associated with observed obesity was the increase in caloric consumption, especially associated with the gradual increase in the intake of ultra-processed products and in parallel the low consumption of fruits and vegetables, that is, the portion of vegetable sources of fiber is still very low, as is the habit of doing daily physical exercise. (ABESO, 2022).

The consumption of ultra-processed products has contributed to excess weight, as they have a high sugar and fat content, combined with low fiber content (Caetano et.al, 2017). Associating nutritional diagnosis (ND), food consumption and lifestyle habits of the studied population, it can be observed that these factors may be contributing to the increase in the percentage of overweight and obesity, associated with excessive exposure to screens.

One of the ways to contribute to the quality of life is to make better food choices and help develop healthier habits, it consists of encouraging the consumption of natural foods, in the school environment and at home. The habit of reading food labels is essential for developing a critical look at the composition of each food before purchasing, eating meals with family and friends around the table, without exposure to screens directing attention exclusively to the meal, are recommendations that are present in the Food Guide for the Brazilian population (MS, 2014).

Students are of great importance to society, especially children and young people, thinking about the possibility of a promising future, the school environment is essential for building new knowledge and carrying out activities related to Food and Nutritional Education (EAN), contributing not only to promote healthier choices, as well as greater autonomy and empowerment through mastering new knowledge

For teachers to act as promoters of healthy eating in the school environment, it is necessary that they participate in training courses in EAN – Food and Nutritional Education and that these are planned from a permanent education perspective (URQUÍA; NOBRE, 2023). The practice of EAN in the school environment is necessary to build students' healthy eating habits with the

development of continuous learning activities to develop a critical outlook and make food choices reflecting the health and well-being of that individual and the people around them, Furthermore, EAN practices can reflect on other generations, since knowledge is passed from generation to generation. In order to contribute to the transformative training and emancipation of healthy individuals, aware of their rights and duties, and their social and environmental responsibilities (Mota, 2021).

All individuals present at school, employees, students and educators are essential for building knowledge in the school environment and carrying out activities. EAN is necessary, especially for children and young people, in order to develop transformative practices and knowledge about healthy eating, which make a big difference in the health of the collective

CONCLUSION

In this study, the prevalence of eutrophy was observed in the majority of students, which means that they are within normal limits, however, a significant percentage of malnutrition was also observed and a significant portion were overweight and obese. The consumption of foods that are healthy markers as well as unhealthy ones was observed. However, school and education are capable of influencing the reformulation of healthy eating habits, which can impact the choices of each of them and consequently the

body composition and health of each person involved. Analyzing the results, it is possible to observe the need to encourage the practice of physical activities, exercises and sports, as well as actions with food and nutritional education activities among students in an attempt to find ways to contribute to healthy choices and reduce food consumption. ultra-processed foods, aiming to help in the formation of healthy eating habits, humanization and socialization of the actors involved. The school is an ideal space for carrying out projects that include systematic and permanent actions on food and nutritional education, the environment and sustainability, given the importance of these themes, especially healthy eating and experiences in green spaces, which help in the development of young people and adults, becoming healthy and important environments that can positively influence the formation of healthy collective habits in a space dedicated to learning and knowledge.

This way, school students can be protagonists of these actions and transformations in the search for changes in their eating habits and lifestyle, the school, through its mission to educate and guide, can use its pedagogical capacity to introduce these changes into their lives., thus transforming their own lives, realities and routines, opting for changes and healthy choices that will contribute to improving the quality of life of everyone in the school community.

REFERENCES

- ÁLVAREZ, M et al. Uso de redes sociales y consumo de alimentos en adultos jóvenes que asisten a gimnasios de la ciudad de Guayaquil. *Nutrición clínica y dietética hospitalaria*, p. 66-72, 22 ago. 2022.
- AGUIAR, M;L;C et al. A influência das mídias sociais no comportamento alimentar de adolescentes e jovens adultos: uma revisão sistemática. Florianópolis, 2023. Disponível em: <https://repositorio.animaeducacao.com.br/bitstream/ANIMA/33399/1/TCC.pdf>.
- ABESO. Posicionamento sobre o tratamento nutricional do sobrepeso e da obesidade : departamento de nutrição da Associação Brasileira para o estudo da obesidade e da síndrome metabólica.(ABESO -2022). 1.ed.SãoPaulo, 2022.Disponível em: https://abeso.org.br/wp-content/uploads/2022/11/posicionamento_2022-alterado-nov-22-1.pdf.
- ABÍLIO, F.J. P.; GUERRA, R. A. T. (Org.). A questão ambiental no ensino de Ciências e a formação continuada de professores de ensino fundamental. João Pessoa: UFPB/FUNAPE, 2005.
- BRASIL. Fundo Nacional de Desenvolvimento da Educação (FNDE), autarquia federal vinculada ao Ministério da Educação (MEC). <Acessado em: 12.10.2023. <https://www.gov.br/mec/pt-br/assuntos/noticias/2023/marco/governo-federal-reajustavalores-da-alimentacao-escolar.2023>.
- BRASIL. Ministério da Saúde. Secretaria de Vigilância em Saúde e Ambiente. Departamento de Análise Epidemiológica e Vigilância de Doenças Não Transmissíveis. *Vigitel Brasil 2023: Departamento de Análise Epidemiológica e Vigilância de Doenças Não Transmissíveis*. – Brasília: Ministério da Saúde, 2023. 131p. Acesso: World Wide Web: http://bvsm.sau.gov.br/bvs/publicacoes/vigitel_brasil_2023.pdf ISBN 978-65-5993-476-8.
- BRASIL. Ministério da Saúde. Secretaria de Atenção Primária à Saúde. Departamento de Promoção da Saúde. Manual de atenção às pessoas com sobrepeso e obesidade no âmbito da Atenção Primária à Saúde (APS) do Sistema Único de Saúde [recurso eletrônico] / Ministério da Saúde, Secretaria de Atenção Primária à Saúde, Departamento de Promoção da Saúde. – Brasília : Ministério da Saúde, 2022. 55 p.
- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Orientações para avaliação de marcadores de consumo alimentar na atenção básica [recurso eletrônico] / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. – Brasília : Ministério da Saúde, 2015.
- BRASIL. ministério da saúde. secretaria de atenção à saúde. departamento de atenção Básica. Guia alimentar para a população brasileira / ministério da saúde, secretaria de atenção à saúde, departamento de atenção Básica. – 2. ed., 1. reimpr. – Brasília : ministério da saúde, 2014. 156 p. : il.
- BRASIL. Ministério da Saúde (MS). A saúde de adolescentes e jovens: uma metodologia de auto-aprendizagem para equipes de atenção básica de saúde. Brasília: MS; 2012.
- BRASIL. Ministério da Saúde (MS). Norma Técnica da Vigilância Alimentar e Nutricional. SISVAN,2004.Disponível em:http://tabnet.datasus.gov.br/cgi/SISVAN/CNV/notas_sisvan.html.
- INSTITUTO DESIDRATA. Obesidade infantojuvenil. Seminários de Obesidade Infantojuvenil.Nota Técnica – Argumentos técnicos em defesa do Projeto de Lei nº 1.662/2019. 2º Panorama da Obesidade em Crianças e Adolescentes, 2019.
- MANUAL DE AVALIAÇÃO NUTRICIONAL e necessidade energética de crianças e adolescentes : uma aplicação prática / Adriana Lima Mello (org.).- Salvador : EDUFBA, 2012. Disponível em: <https://repositorio.ufba.br/bitstream/ri/16778/1/manual-de-avaliacao-nutricional-e-necessidade-energetica.pdf>.
- MELO, S; J. A alimentação escolar na percepção dos educandos e educadores: um estudo de caso na educação de jovens e adultos. Paraná, 2013.Disponível em:http://www.diaadiaeducacao.pr.gov.br/portals/cadernospde/pdebusca/producoes_pde/2013/2013_ufrp_ped_artigo_janete_da_silva_melo.pdf. Acesso em: 24/07/2023.
- MOTA, B. R. Percepção de Professores do Ensino Fundamental de Paracambi - RJ a Respeito da Educação Alimentar e Nutricional. Dissertação (mestrado) - Universidade Federal Fluminense, Instituto de Saúde Coletiva, Niterói, 2021. Disponível em: <https://app.uff.br/riuff/bitstream/handle/1/28383/BRUNO%20RIBEIRO%20DA%20MOTA%20DISSERTA%c3%87%c3%83O.pdf?sequence=1&isAllowed=y>.

MINISTÉRIO DA SAÚDE (MS). Anemia ferropriva: deficiência de ferro é um dos fatores que podem estar associados à mortalidade materna, publicado em 31.08.22. <Acessado em: 03.11.23.><https://www.gov.br/saude/pt-br/assuntos/noticias/2022/agosto/anemia-ferropriva-deficiencia-de-ferro-e-um-dos-fatores-que-podem-estar-associados-a-mortalidade-materna>. 2023.

MINISTÉRIO DA SAÚDE (MS). O SUS diagnosticou sobrepeso e obesidade em quase 1,4 milhão de adolescentes. <Acessado em: 04.10.23. ><https://www.gov.br/saude/pt-br/assuntos/noticias/2022/outubro/sus-diagnosticou-sobrepeso-e-obesidade-em-quase-1-4-milhao-de-adolescentes>.

Nutrição em Pediatria: manual prático para profissionais de saúde/ Organizado por Thaisy Cristina Honorato Santos Aves-Salvador: EDUNEB, 2017.

OBESIDADE. Associação Brasileira para o Estudo da Obesidade e da Síndrome Metabólica Diretrizes brasileiras de obesidade 2016 / ABESO - Associação Brasileira para o Estudo da Obesidade e da Síndrome Metabólica. – 4.ed. - São Paulo, SP,2016.

OLIVEIRA; S; J. et al.ERICA: use of screens and consumption of meals and snacks by Brazilian adolescents. Rev; saúde pública. São Paulo, 2016. Disponível em: <https://doi.org/10.1590/S01518-8787.2016050006680>. Acesso em 04/08/2023.

PEPE, R. B, et al. Posicionamento sobre o tratamento nutricional do sobrepeso e da obesidade: departamento de nutrição da Associação Brasileira para o estudo da obesidade e da síndrome metabólica (ABESO - 2022) 1. ed. - São Paulo: Abeso, 2022. Disponível em: https://abeso.org.br/wp-content/uploads/2022/11/posicionamento_2022-alterado-nov-22-1.p.

PESQUISA NACIONAL DE SAÚDE: 2019 - Ciclos de Vida: Brasil / IBGE. Coordenação de Trabalho e Rendimento. Rio de Janeiro: IBGE, 2021. 139 p. Convênio: Ministério da Saúde. ISBN 978-65-87201-76.

PITREZ FILHO, M. S. *et al.* Fatores de risco cardiovasculares, metabólicos e inflamatórios e suas relações com obesidade em crianças e adolescentes – fisiopatologia e aspectos clínicos. Boletim Científico de Pediatria - Vol. 1, Nº 2, p. 48, 2012. Sociedade de Pediatria do Rio Grande do Sul. Disponível em: https://www.sprs.com.br/sprs2013/bancoimg/131210145708bcped_12_02_03.pdf.

ROSSI CE, Albernaz DO, Vasconcelos F de AG de, Assis MAA de, Di Pietro PF. Influência da televisão no consumo alimentar e na obesidade em crianças e adolescentes: uma revisão sistemática. Rev Nutr [Internet]. 2010. Jul; 23(4):607–20. Available from: <https://doi.org/10.1590/S1415-52732010000400011>.

SBCBM. Obesidade atinge mais de 6,7 milhões de pessoas no Brasil em 2022. Brasil, 03 de março de 2023. Disponível em: <https://www.sbcbm.org.br/obesidade-atinge-mais-de-67-milhoesdepeessoasnobrasile2022/#:~:text=A%20obesidade%20grau%20I%20atinge,participaram%20da%20tabula%C3%A7%C3%A3o%20do%20SISVAN>.

SILVA, Janiquelli Barbosa *et al.* Factors associated with the consumption of ultra-processed food by Brazilian adolescents: national survey of school health, 2015. **Revista Paulista de Pediatria**, [S.L.], v. 40, p. 1-10, 2022. FapUNIFESP (SciELO). <http://dx.doi.org/10.1590/1984-0462/2022/40/2020362>.

URQUÍA, Yazareni José Mercadante; NOBRE, Luciana Neri. Educação alimentar e nutricional em ambiente escolar no Brasil pré-pandemia: docentes como alvo das ações. Areté, Revista Digital del Doctorado En Educación de La Universidad Central de Venezuela, [S.L.], v. 9, n. 17, p. 191-209, jul. 2023. Saber CDCH-UCV. <http://dx.doi.org/10.55560/arete.2023.17.9.9>.