

Aspects of Infant Eating Behavior in Children from 0 to 10 Years: An Integrative Review

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Keywords — *eating behavior, eating habits, eating disorder, childhood, food advertising.*

Abstract — *Childhood is an essential phase in the formation of eating habits and eating behavior of an adult individual, and the construction of children's eating behavior can positively or negatively influence the child's health. Thus, in this literature review, the objective was to survey aspects of children's eating behavior in children aged 0 to 10 years. The review used the following databases: MEDLINE, LILACS, BDNF, BBO, Coleção SUS and SCIELO, and was developed in six stages: 1. elaboration of the research question, 2. definition of the sources for the selection of primary studies and the criteria for inclusion and exclusion, 3. definition and extraction of data, 4. evaluation of included studies, 5. critical analysis of the results, 6. presentation of the synthesis of the evidence found. Twelve studies were selected, which showed that the eating behavior of parents and guardians influenced children's food choices, and reward strategies had negative effects on eating habits and behavior. Regarding the school environment, there was a high consumption of processed and ultra-processed foods and a low consumption of in-natura foods, however, the benefits of nutritional education and the role of parents and caregivers in building healthy eating habits and in the development physical and mental.*

I. INTRODUCTION

The first years of life are fundamental for the growth and development of children, and are essential for the formation of habits that will have a direct impact on the promotion and maintenance of health. In this context, food plays a decisive role in human health conditions [1]. There is a consensus that food can provide protection or worsen various diseases, such as chronic non-communicable

diseases, which currently represent the largest cause of mortality in the world [2].

The State of the World's Children 2019 report found that a third of children under the age of 5 are undernourished or overweight, and two thirds are at risk of malnutrition and hidden hunger due to the poor quality of their food [3].

Childhood is considered an essential phase in the formation of eating habits. In recent years, aspects related to infant feeding have drawn the attention of several researchers, as this stage in the construction of eating behavior is made up of complex factors that can impact the individual's subsequent eating behavior [4].

The author Marle Alvarenga [5] defines eating behavior as a set of cognitions and affections that govern the individual's eating actions and behaviors, it is also all kinds of food constructs, such as: consumption habits, eating habits, and where to eat.

It is in childhood that eating behavior has its bases fixed, it is at this stage that eating attitudes will be formed that can have positive and negative impacts on the child's health. Eating habits learned in childhood are difficult to change in adulthood. Therefore, as a rule, the eating behavior built in the first years of life will accompany the individual in his later years [6].

In view of the above, it is necessary to understand the factors that constitute children's eating behavior, as well as their impacts on children's health. Therefore, in this literature review, the objective was to survey aspects of children's eating behavior in children aged 0 to 10 years.

II. METHODOLOGY

2.2 Type of study

Descriptive-analytical cross-sectional study of literature review, which was carried out in the following steps: 1- Choice of research topic, 2- Definition of descriptors, 3- Search in databases, 4- Selection of articles, 5- Critical analysis of the selected studies, 6- presentation of the synthesis of the evidence found.

2.2.1 Scenery

In November 2021, a survey of scientific articles published in the last 5 years in Portuguese was carried out, using the electronic database MEDLINE, LILACS, BDENF - nursing (Brazil), BBO - dentistry (Brazil), Coleciona SUS (Brazil), SCIELO Brasil – Scientific Electronic Library online, from the CAPES Portal through the Virtual Health Library of the Ministry of Health – BVS MS, which has been available on the internet since 2001, being responsible for publishing bibliographic publications produced by the Ministry of Health, as well as information in the area of health sciences.

2.2.2 Descriptors

To define the search, the following descriptors were used: Eating behavior; Food habit; Eating disorder; Children and Food Advertising.

2.2.3 Inclusion and Exclusion Criteria

For the selection of studies, the following inclusion criteria were adopted: Works published between 2016 and 2021, written in Portuguese.

We excluded from the sample, works that did not address the behavioral aspects of infant feeding, and that did not include the age group from 0 to 10 years.

2.2.4 Data collection

During the research in the databases, filters were applied to include only studies published in Portuguese, in the period from 2016 to 2021. After applying the filters, the five descriptors were inserted together in the databases, however, none article was found in the search. Then, four searches were performed by entering the descriptors in pairs.

In the first search, the descriptors used were: “Eating behavior” and “childhood”, obtaining 45 articles as a result, of which 10 were pre-selected. Then, the descriptors used were: “Food behavior” and “Food advertising”, 8 articles were found, 3 were eliminated by repetition and 1 was pre-selected. In the third search, the terms “eating disorder” and “childhood” were used to delimit the research, where 4 works were obtained as a result, 1 being eliminated by repetition and none pre-selected. The last search was performed using the terms “eating habits” and “childhood”, 68 articles were found, 6 were excluded by repetition and 3 were pre-selected.

At the end of the search, 12 articles were selected for literature review.

III. RESULTS

Through the search in the databases, a total of 125 articles published in Portuguese in the last five years were found. A considerable part of this sample was not selected for the review because it did not satisfactorily address the topic discussed in this study. 10 articles were excluded due to duplication and 14 were pre-selected. After a complete reading of the studies, 2 were excluded because they did not cover the topic of interest in the present study. Thus, 12 studies were selected to be discussed in this review.

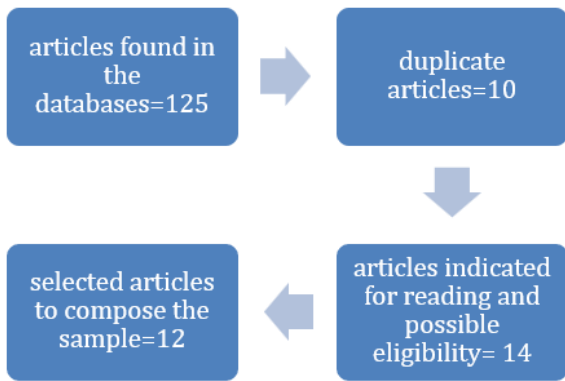
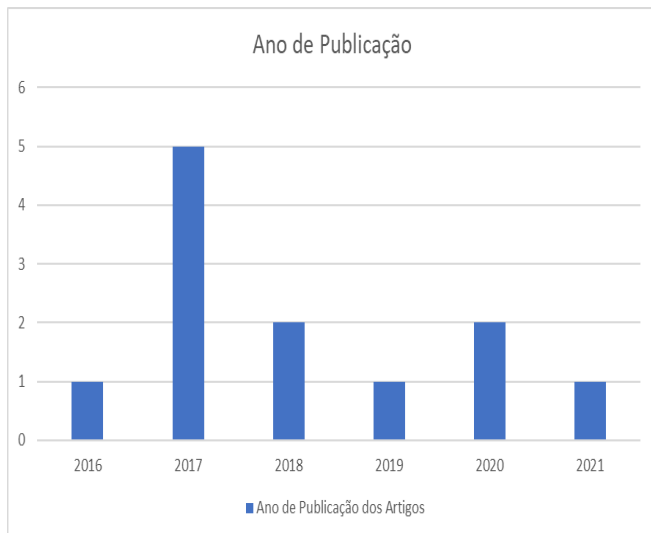


Fig.1: Flowchart of the integrative review articles selection process.

Source: Authors, 2022

Graph 1: Year of publication of the studies included in the sample.



Source: Authors, 2022.

As described in the methodology, all selected studies were published in the period between 2016 and 2021. It is possible to observe that in 2017 there was a greater volume of publications of the articles chosen for this review

Graph 2: Place of publication of the studies included in the sample.



Source: Authors, 2022.

During the search for articles in the databases, a filter was applied to display only articles published in Portuguese, thus, 92% of the studies were published in Brazilian cities, and 1 article was published in the district of Viseu in Portugal.

Table 2 presents the methodology, objectives, results and conclusion of the primary studies.

Table.2: Synthesis of the articles selected for the integrative review.

TITLE	AIM	METHODOLOGY	RESULTS	CONCLUSION
Parents' knowledge about infant feeding: relationship with sociodemographic characteristics and nutritional status of the child [7]	Classify the child's nutritional status; to analyze the influence of sociodemographic variables on parents' knowledge about child	Quantitative, cross-sectional, descriptive and correlational study, carried out in a non-probabilistic sample, for convenience of 114 parents and children, mothers with a mean age of 34.40 years and fathers 36.50 years old. Of the children, 56.1%	The questionnaire was answered mainly by the children's mothers in a total of 103 (90.4%) and only by 11 (9.6%) by the fathers. As for the parents' education, 47.1% had secondary education, 35.6% had primary education and 17.3% of the mothers had higher	The results indicate that parents' knowledge about child nutrition remains insufficient and associated with the sociodemographic context of health inequalities. Thus, it is important to promote the strengthening of

	<p>nutrition; to relate the nutritional status of the child with the parents' knowledge about food</p>	<p>were preschool age and 43.9% school age, ranging from 3 years to 9 years. For the collection of information, the questionnaire “Knowledge of Parents on Infant Feeding (QAI)” by Aparicio, Nunes, Duarte and Pereira (2012) was used. In order to classify the BMI, an anthropometric assessment was carried out on children in kindergarten, elementary schools and in child health surveillance consultations at the Personalized Health Care Unit (UCSP) in a municipality in the district of Viseu. and the NCHCS cut-off points (CDC, 2000) were used to classify nutritional status..</p>	<p>education. in relation to Parents, 50.0% had basic education and higher education, respectively. As for the nutritional status of the children, 57.0% of the children were normal weight, 16.7% were pre-obese, 13.2% were obese (29.9% overweight) and 13.2% were in a situation of Low weight. As for the result of the questionnaire, it was found that 43.9% had sufficient knowledge, 30.7% good knowledge and 25.4% had insufficient knowledge.</p>	<p>the family, improving their knowledge about child nutrition, which can be one of the strategies for preventing childhood obesity and minimizing health inequities.</p>
<p>Parental eating practices: the perception of children about the educational strategies used in the conditioning of eating behavior [8]</p>	<p>To evaluate the children's perception of the eating practices used by their parents, namely: control of food made by the child, use of food to control emotions, encouraging balance and food variety, environment with healthy food, food as a reward, involvement,</p>	<p>The study was carried out through the Food Practices Verification Questionnaire (QVPA) - Children Version (Mayer, 2011). Research participants were included via non-specific sampling, -probabilistic, whose participation was voluntary and anonymous. A total of 114 children from public and private schools in São Luís (MA) participated in the study, aged between eight and 11 years (M = 9.8 years; SD = 1), 63 of them from women.</p>	<p>The analysis of parental feeding practices indicated several correlations between them. Several practices considered adequate correlated with each other, in all crossings. And as for inappropriate practices, emphasis is given to the correlation between the use of food as a reward and the use of foods to control emotions, showing that both practices sometimes appear together in the same family context.</p>	<p>The analysis of parental feeding practices indicated several correlations between them. Several practices considered adequate correlated with each other, in all crossings. And as for inappropriate practices, emphasis is given to the correlation between the use of food as a reward and the use of foods to control emotions, showing that both practices sometimes appear together in the same family context</p>

	<p>modeling, monitoring, pressure to eat, dietary restriction for health, dietary restriction for weight control, and nutrition education.</p> <p>To characterize the discourse made possible in advertisements and food advertisements aimed at children.</p>			
<p>Mothers' perception of children's food advertising [9]</p>	<p>To characterize the discourse made possible in advertisements and food advertisements aimed at children.</p>	<p>Two methods were applied in this research: the first was the in-depth interview, where seven mothers with children between the ages of 2 and 12 years, and different social classes were interviewed: and the other method applied in the study was the Focus Group, which is a qualitative technique done through in-depth interviews in groups. In this method, 13 class A mothers with children between the ages of 2 and 12 years were gathered.</p>	<p>Mothers were helpless in the face of the current panorama of children's advertising, and reported feeling deceived by advertisements.</p>	<p>Changes are needed in several ways so that children's advertising is positively recognized by mothers.</p>
<p>Childhood obesity: family experiences related to the nutritional counseling process [10]</p>	<p>Describe, interpret and understand family experiences related to nutritional counseling for</p>	<p>Qualitative, exploratory research, with data production through focus groups. The participating subjects were the family members of children who undergo nutritional</p>	<p>The study sample was 100% composed of women, which demonstrates that the female role is still predominant in the care of children in general. As for the perceptions of</p>	<p>Food has shown to have functions that go beyond the supply of biological needs by adding cultural, behavioral and affective meanings from which</p>

	children with obesity	monitoring due to the diagnosis of obesity at the Policlínica Centro de São Bernardo do Campo.	the children's body image, the family members feared that the child would suffer prejudice because of their physical appearance, it was also possible to observe that some families consider overweight in certain age groups as a positive health indicator. Concerning children's body self-image, children's desire to lose weight in order to reach a socially accepted standard of beauty was notorious.	individuals relate. The experiences and life trajectories of each of these families are unique and underlie the way situations are individually experienced by them and directly impact their attitudes and behaviors. Food and eating proved to be linked to history, memories and the affective dimension that makes up each of these people.
Food purchase and consumption habits in families under five years of age in a municipality in northeastern Brazil [11]	To evaluate food purchase and consumption habits in families with children under five years of age in a municipality in Northeast Brazil	Cross-sectional research, with a quantitative approach, carried out with 138 individuals in the six basic urban health units in the city. A structured interview was carried out with the application of questionnaires on socioeconomic information, food purchase and consumption habits, food safety, self-reported weight and height..	Among the consumption habits evaluated, it was verified that the consumption of raw salad (83.8%), fruits (95.9%) and fruit or pulp juice (93.8%) on at least one day a week were associated with higher education. While the higher frequency of purchase and consumption in restaurants and snack bars was associated with a higher income, having a job and not participating in social programs.	Hábitos de compra e de consumo de alimentos mais saudáveis foram associados com maior escolaridade e condições de trabalho e renda. Assim como acesso à restaurantes e lanchonetes em indivíduos com melhor poder aquisitivo.
The influence of the media on children's food consumption: a literature review [12]	Discuss the influence of the media in children's food consumption.	Bibliographic review including scientific articles, dissertations and theses published between 2009 and 2016, located in the online databases/research portals: Scientific Electronic Library Online, Latin American and Caribbean Literature	Studies have shown that children are attracted by the artifices used in advertising and feel the urge to purchase the advertised foods, especially those that use gifts and children's characters.	It can be observed that the media has a great influence on children's eating habits, using the most different artifices to induce consumption. Studies indicate that the dissemination of high-calorie and low-nutrition foods has

		on Health Sciences Information, Virtual Health Library and Google Scholar. The keywords used were: child food consumption, childhood obesity, food marketing and advertising.		contributed to an obesogenic environment and a considerable increase in NCDs. It is also emphasized that the role of the family is fundamental for the promotion of healthy habits for children and for guiding them that not everything that the media propagates brings health benefits.
Participation of ultra-processed foods in the diet of Brazilian schoolchildren and their associated factors [13]	To evaluate the contribution of ultra-processed foods (UPF) in the diet of schoolchildren and their associated factors.	Cross-sectional study carried out with children between eight and 12 years of age in public schools in a Brazilian capital. Anthropometric data and dietary and lifestyle habits were investigated.	The average energy consumption was 1,992 kcal/day, 25.2% of which came from the AUP. The students had a mean age of 9.8±0.5 years, 53.4% were female and 32.6% were overweight. The most consumed UPAs were industrialized pasta, sweet biscuits, sausages, powdered chocolate and soft drinks. Schoolchildren with the habit of eating in front of the television and overweight had 1.87 (95% confidence interval [95%CI] 1.03–3.39) and 2.05 (95%CI 1.01–4, 20) times more likely to have a greater participation of AUP in the diet, respectively.	The AUP contribution was significant in the schoolchildren's diet and was positively associated with overweight and the habit of eating while watching television. These findings denote the importance of nutritional interventions to promote healthy habits, thus preventing overweight in childhood.
Healthy eating related to eating behavior and social conduct [14]	Develop the Composite Indicators of Social and Food Condition and characterize the population according to unsatisfactory/satisfactory and	This is a quantitative, descriptive, cross-sectional study carried out with 208 students from the 4th and 5th grades. The collection was carried out through interviews, covering four indicators for the Social Condition and ten	It is noted, in relation to the Composite Indicator of Food Condition, that the majority of respondents reported liking healthy foods and food preparations more, and the intake of unhealthy foods and drinks influenced the	It is observed that the economic conditions of families that have a per capita income lower than one minimum wage/month contribute to poor eating habits.

	unhealthy/healthy conditions	for the Food Condition.	result regarding the Composite Indicator of Unhealthy Food Condition . It appears that per capita income was the indicator that most contrasted with the result obtained by the others; In order to determine the Composite Indicator of Social Condition, a satisfactory socioeconomic situation was recorded, although it was the closest to the real living conditions of the students.	
Factors that influence those responsible for the selection of foods for children in early childhood education: a bioethical reflection in an exploratory study [15]	Conduct a bioethical contextualization on the factors that affect those responsible for the acquisition and selection of food offered to research participants	This is a cross-sectional and exploratory study, developed in 2013, at Escola Municipal de Educação Infantil (EMEI) Profa. Lourdes Heredia Mello, located in the southern region of the city of São Paulo. We included 162 guardians of children aged 4 to 6 years who adequately answered the research questionnaire consisting of 6 semi-open questions previously tested for data collection.	The “healthy” factor of gender food was highlighted by the interviewees as a determinant for the acquisition of the genre (77.2%), while the media was reported as the least influential factor in the purchase (63%).	The present study showed that there is some concern on the part of those responsible for the choices of food to be bought and offered to children. Ethical aspects must always be considered against economic and other secondary interests such as Social
Perceptions of families about the eating habits of children who are obese [16]	To describe the family influence on the eating habits of children aged 6 to 10 years who are obese	Trata-se de uma pesquisa descritiva exploratória com abordagem qualitativa. Participaram 20 familiares e 33 crianças, matriculadas em escolas do norte de Santa Catarina. Realizou-se aferição de medidas antropométricas, cálculo de índice de massa corpórea, entrevistas e	It was found that families have already understood that their attitudes interfere with their children's food preferences; that they don't have healthy eating habits, because they don't have them either; that there is difficulty in teaching good eating habits due to the lack of daily	It is considered that school, after the family, is a very rich environment for obtaining new and favorable health habits. The partnership between the health sector, school, families and children needs strategies that strengthen the participation of all

		atividade educativa. Para a coleta dos dados, utilizou-se um formulário semiestruturado	coexistence between family members, due to the long working hours of the parentes.	those involved in the search for resources that teach children healthy habits of life.
Feeding difficulties in early childhood: A systematic review [17]	Research the relationship between feeding problems and parenting practices and styles	Systematic review of the specialized international literature on feeding difficulties in early childhood, of items published in the last five years, in the Ebsco Host databases (Academic Search and Medline), Pubmed/Medline, Psycinfo, Science Direct, Scopus, BVS and Scielo. Twenty-four articles in the field of Psychology were selected.	It was identified that the quantitative method with prospective and longitudinal characteristics was the most used among studies. Furthermore, the European continent is responsible for most publications. There was a growth of studies on the food issue in childhood from the year 2010 and the Participants were, for the most part, mothers and pairs of mothers and babies.	Although there is no consensus on the origin of feeding difficulties in children in the studies reviewed, the scientific production analyzed shows that family relationships and the environment in which the child is inserted are of great importance in order to understand the origin of their difficulties. . In addition, there was a concern to find out how these problems present themselves throughout the child's development, suggesting the design of longitudinal studies. At the same time, the causes of feeding difficulties in early childhood point to a multiplicity of variables that are still not well understood.
Healthy eating in childhood: social representations of families and school-age children [18]	Investigate the social representation s of healthy eating in families and school-age children	Multiple case study, with semi-structured interviews and graphics. Eight families of medium and low socioeconomic class participated, five with security and three food insecurity	The analysis revealed that rural food, in the parents' childhood, was a difficult time, however, considered healthier. Although the families expressed normalized conceptions of healthy eating, various forces, proximal and distal, tended their current practices in another direction. Easy access to unhealthy	Os achados apontam que as representações sobre alimentação saudável abarcam diferentes contextos de sociabilidade da criança e são atravessados pelo contexto histórico e cultural das famílias, desafiando noções baseadas no conhecimento formal

			foods and financial restrictions added to the families' busy lives and pleasurable meanings associated with "crap/junk" (in their words) as a way to get out of the routine.	
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From the analysis of the sample studies, it was observed that the most discussed topic in the articles was the contribution of new dietary patterns to the increase in the emergence of chronic non-communicable diseases in children, this subject was discussed in 50% of the articles, followed by family influence and income conditions on children's eating patterns, which were addressed in 35% of the studies. Emphasis was also given to the influence of the media on children's eating behavior, and to the level of parents' knowledge about healthy eating, both themes were addressed in 25% of the articles.

IV. DISCUSSION

4.1 Food marketing and advertising

The influence that the media exerts on the population's eating patterns is notorious. The high rate of advertisements, especially for ultra-processed and high-calorie foods, end up attracting consumers to their products, especially children.

In the research by Iba & Spers [9], the purchase and consumption behavior of food products aimed at children was evaluated from the perspective of mothers. The interviewed mothers claimed to feel deceived by the advertisements, and helpless due to the lack of correct information in the advertisements of the food they buy, or may buy for their children.

Leung, Passadore, & Silva [15], in their study, found as a result that the media does not seem to exert great influence on the purchase of food products, the decisive factors according to the caregivers' reports were: price, "healthiness" and the request of children.

Although the media has not been presented as a major factor of influence in the purchase of food, approximately a quarter of the parents interviewed by Leung et al. claimed to be directly influenced by advertisements.

Ceccatto, Spinelli, Zanardo, & Ribeiro [19], comment that the food industry sees children as consumers, and it was identified that the child influences

approximately 90% of the family's food purchases, so it is understood that they exert great influence on parents' purchasing decisions, causing the food industry to invest even more in marketing aimed at children. This fact is corroborated in the study by Leung et al., where it was noticed that the child's request greatly influences the purchase of the product, which should not happen, as it is up to parents to shape the child's eating habits and behavior by offering food. healthy foods and promoting proper habits.

Ceccatto et al. [19] observed in their review that the media exerts its power to influence children's food choices through the use of animated characters and artists in advertisements. Due to the seduction devices used by the industry, children are induced to associate the consumption of ultra-processed foods with happiness and social acceptance.

Leung et al. [15] also state that frequent exposure to unhealthy food marketing can modify children's eating patterns and affect their growth and development. Therefore, it is the duty of parents to limit the child's access to this type of advertisement, especially during meals, as well as to reduce the supply of these foods and provide children with access to healthy foods.

Exposure to food-related commercials for just 30 seconds is capable of influencing the choice of a particular product. The high rate of advertisements that encourage the consumption of unhealthy foods, especially ultra-processed foods, can cause serious damage to health. Evidences state that the media exerts a direct influence on consumers' food choices, especially children, who are easily attracted by the artifices used by the industry in order to induce them to consume a certain product [12].

These results lead to the reflection that new public policies could be produced in order to protect children, who are exposed to the frequent maneuvers of media influence.

4.2 Influence of parents and caregivers

The family nucleus has a decisive character in the formation of children's eating behavior, which has its bases

fixed in the first years of life. Knowing that in childhood, especially in the early years, child behavior is mostly reproduced, it is of fundamental importance that parents and caregivers understand their decisive influencing role in the child's feeding and development, the behavior of parents in the formation of the child's eating habits. it can lead to physical and emotional complications in the child's later years [20]

Considering that eating habits are built in childhood, this phase becomes the most favorable for nutritional education, health promotion and disease prevention. Knowing that the family is the main influencer of children's eating behavior, it is extremely important that family members offer nutritionally adequate food for the child's growth and development. In this way, in addition to promoting the child's health, the family will be introducing healthy eating habits to the child's eating behavior [21]

Leung et al. [15] state that the family acts as the first trainer of children's eating behavior, from the stage of food introduction, as the way in which foods are introduced can impact negatively or positively on the child's eating habits.

Muller, Salazar & Donelli [17] also found as a result that the introduction of solid foods, when done at age and incorrectly, may be associated with poor diet quality.

Vasconcelos et al. [14], claim that family eating habits directly influence children's food preferences, and reinforce the importance of parents adopting healthy eating habits, as well as having family meals, so that children learn good eating habits.

Silveira, Henn & Gonçalves [18] interviewed family members of students in the first year of elementary school, in order to investigate the strategies used by the family to promote healthy eating habits for children, and to assess their conception of healthy eating.

Most of the parents interviewed considered rural food, mostly in natura, healthier than the food found in large urban centers, which in turn consists of large amounts of ultra-processed foods. Parents also reported having difficulties in inserting healthy foods into their children's diets. In addition, it was possible to perceive that those responsible for the children understand that their examples are of great influence for the formation of the children's eating behavior, since they tend to imitate their parents' behavior in different situations, including at the table.

The children interviewed showed the same conception of healthy eating as their parents,

demonstrating that the parents advised them on healthy eating and served as models of good eating habits.

As for the strategies used by parents, it was possible to notice that they usually use food as a reward, which can negatively influence the child's food preferences, Carozzo & Oliveira [8] also considered this practice negative.

Carozzo & Oliveira [8] pointed out 12 strategies (positive and negative) used by parents to condition their children's eating behavior.

Parental educational practices are strategies that make it possible to install appropriate behaviors and extinguish inappropriate behaviors, it is believed that they also play roles in the installation and maintenance of eating behavior.

In their research, Carozzo & Oliveira [8] pointed out some negative strategies used by parents, such as: the use of food as a reward, and the use of food to control emotions. These practices can induce incorrect eating habits, such as "emotional eating" which can be defined as a consequence of the lack of emotion regulation, where food is used to reduce negative emotions, or as a reward, this behavior causes harm. in the child's eating behavior, both in childhood and in later years.

Among the appropriate practices addressed in the study, the following stand out: teaching about nutrition to children, combined with the practice of encouraging balance and food variety. The benefits are not only attributed to the guidelines regarding adequate nutrition, but also due to the promotion of communication between parents or caregivers and their children. Establishing a good dialogue with the child makes them feel welcomed and understood, providing a more peaceful family environment, favoring a better understanding and acceptance of the guidelines given by the parents.

Most of the practices considered positive involved the involvement of parents in the lives of their children, whether teaching about nutrition, encouraging food variety, or striving to serve as a model for the formation of good eating habits for their children. Thus demonstrating the importance of caregivers in the formation and maintenance of children's eating behavior.

In the study by Lervolino, Silva, & Lopes [16], it was concluded that parents have already understood their role in influencing their children's food preferences, they are also able to describe a healthy diet, however, they continue to offer foods of low nutritional value to their children. children, and avoiding offering food that the children do not like due to lack of time and convenience. It was also possible to observe that the absence of parents

during meals made it possible for children to replace meals with ultra-processed snacks.

Participants in Antunes' survey [10] demonstrated that they understand the value of shared eating and that they prioritize having family meals whenever possible. The act of eating as a family does not only provide nutritional value, it is also a moment of fraternization, affection and is the moment where children observe their parents' eating habits and form their eating behavior.

Pinto [20] reinforces that it is important for parents to have knowledge about healthy eating, so that they can offer food of adequate quality and quantity to children, always offering varied foods of high nutritional value, respecting the child's signs of satiety so as not to cause excessive ingestion.

Despite being observed that there is a tendency where parents and caregivers better understand the value of a healthy diet, and choose to purchase foods with greater nutritional value, Leung et al. [15] in their research, observed that some of the foods most offered to children outside the main meals were: soft drinks, sweets and packaged snacks, which were offered in practically the same proportion, respectively: 39.5%, 37.0 % and 35.2%.

These results suggest that it is necessary for parents and caregivers not only to understand the importance of healthy eating and its influential role in the formation of the child's eating habits, but also to implement good eating habits throughout the family, contributing to the good formation of the child's eating behavior and promoting the health of the whole family.

4.3 Changes in dietary patterns and increased consumption of ultra-processed foods

The processes of urbanization and globalization, allied to the insertion of women in the labor market, and the growing power of influence of the media - especially on children - have caused numerous changes in the Brazilian family context, including the population's dietary pattern. [22]

It was possible to observe the occurrence of the food transition phenomenon, which is characterized by a decrease in the consumption of *in natura* foods, accompanied by an increase in the intake of ultra-processed and easy-to-prepare foods. It is observed that the reason for the increase in demand for these foods is attributed to the practicality offered by these products, the palatability and high exposure to advertisements of these foodstuffs.

In the research by Lacerda et al. [13], it was observed that approximately 25% of the TEV in the diet of the students evaluated in their study came from ultra-

processed foods. The results indicated an association between the higher consumption of ultra-processed foods with the habit of eating while watching television, and with being overweight.

Lacerda et al. [13] state that the act of eating while watching television increases twice the probability of consuming UPFs due to exposure to advertisements for these products, and the decrease in the perception of satiety.

Vasconcelos et al. [14] recommend that meals are preferably eaten in the company of family members, and not in front of screens, as this distraction diverts the focus from the satiety signal.

Sabendo que é na infância onde se constroem as bases do comportamento alimentar, duas instituições são consideradas fundamentais na formação dos bons hábitos alimentares da criança: a família e a escola.

Vasconcelos et al. [14] recognize the importance of the school as an important agent in the formation of children's eating behavior, and state that schools should promote actions that guide caregivers and children about healthy eating, as well as encourage the practice of physical activities to reduce indices of sedentary lifestyle and childhood obesity.

Silveira et al. [18] also considered the school as a major influencer of children's eating habits, it was possible to observe that children tended to consume more healthy foods when teachers provided guidance on good eating habits. On the other hand, the food offered in the school canteen mainly involved fried snacks and sweets, demonstrating a contradiction between the discourse and the food offer. In some schools, events such as "garbage day" were observed, this day was reserved for children to take sweets and sugary foods to consume at snack time, in order to reinforce the idea that sometimes it is necessary to get out of the routine of healthy eating

The analysis highlights the dangers that the new dietary patterns bring to health. In the current nutritional scenario, it is extremely important that the population is guided to make healthier food choices. In the same way, it is essential that these healthy eating practices are implemented from the moment the child is introduced to food, so that these habits last and make up the eating behavior at all stages of the individual's growth.

4.4 Socio-economic issues of the family

In a survey that evaluated the purchase and consumption habits of foodstuffs in households with children up to five years of age, Costa et al. [11], identified a lower consumption of vegetables, greens and fruits in groups that are in socioeconomic vulnerability. On the

other hand, these groups showed high consumption of ultra-processed foods, such as soft drinks, snacks and stuffed cookies.

73% of participants in the survey by Costa et al. (2020) had a family income of up to one minimum wage, and 64% were food insecure, of which approximately 70% said they never or almost never consumed healthy foods. In this research, there was also a higher frequency of consumption of natural juices, fruits and vegetables in individuals with a higher level of education.

Vasconcelos et al. [14], in their study, also pointed out that the family's precarious financial conditions make it difficult to acquire healthy foods, as well as to cultivate better eating habits. A fact corroborated by Silveira et al. [18], who also found that families' financial restrictions make it difficult for them to access a greater variety of healthy foods.

These results make it clear that socioeconomic issues directly interfere with the family's food purchase and consumption profile, which influences the eating habits of the entire family nucleus, including children, who are still in the process of forming their eating behavior.

4.5 Feeding difficulties faced in childhood

In the research by Pinto [20], it was possible to observe that approximately 45% of children with normal development and 80% of children with developmental delays present some feeding problem, such as the absence or delay in the development of signs of readiness food, refusal to eat based on taste, texture and other sensory characteristics, inappetence, food neophobia, etc. It was also noted that, in recent years, eating disorders have become more frequent due to multifactorial causes.

Pinto [20] emphasizes that in the preschool phase, food neophobia is a frequent problem. Caregivers find it difficult to introduce new foods into the children's diet, impairing food variety, which is one of the practices that were considered positive in the study by Carozzo & Oliveira.

In his review, Pinto [20] found a study that evaluated food neophobia in children, and associated higher prevalence rates of food neophobia in children who had a lower intake of healthy foods and a high BMI.

It is recommended that you continue to offer food to the child, in order to increase acceptance and reduce the neophobic condition, as it is believed that the child will accept food if offered otherwise on another occasion.

The author details the phases of early childhood eating behavior, where some complications naturally occur, such as: lack of interest in food, greater selectivity

and irregular appetite up to two years of age. After the second year, it is observed that the child easily diverts his attention from the table, becomes even more selective, and refuses new foods.

From the age of 5, when the child starts to have more social interactions, it is possible to notice a greater interest in foods rich in fat and sugar, it is believed that this preference is influenced by the social environment in which the child is inserted, and the media. .

Muller & Donelli [11] also state that eating disorders are frequent until the sixth year of life, these disorders can be mild, or more severe eating disorders.

Pinto [20] also reinforces that it is natural for the child to lose interest in food after the first year of life, however, this situation ends up causing concern and frustration in parents and caregivers. Muller & Donelli [11] point out that the child's refusal to feed mainly causes the feeling of maternal insufficiency in mothers, which leads them to take actions that can aggravate the child's difficulties. The author also states that the lack of knowledge about the child's developmental stages and their real nutritional needs may be possible causes of the feeding difficulties faced by children.

It was noticed that caregivers end up adopting practices such as pressure for the child to eat, which in turn causes children to avoid food. This practice was considered negative by Carozzo & Oliveira [8], because in this case the control of food intake is determined by an order from the parents, and not by the child's feeling of hunger and satiety.

The results found bring the importance of offering support to families who face these difficulties, to resolve doubts and implement good practices in the child's eating behavior, since the family is the most important institution in the formation of eating behavior and in promoting the health of the child.

V. CONCLUSION

It was evidenced through this integrative review that although parents or caregivers do not feel pressured by the media to purchase food products, some studies have shown the opposite, with children being responsible for the greater purchase of food in family groups. However, adequate nutritional guidance and healthier food offerings should come from parents/caregivers, who are primarily responsible for the acquisition of healthy habits by children.

Regarding the eating behavior of parents/caregivers, studies have shown a strong link

between the development of healthy eating habits in young children and the habits presented by those responsible, since children tend to imitate their family members. Further emphasizing the role of caregivers in early childhood. Another point addressed was the use of a reward strategy used by parents during feeding, but such a strategy can have negative influences on the child's eating behavior.

The use of nutritional education and emotion control measures are indicated in order to develop a healthy relationship between the individual and food.

With regard to food in the school environment, research has indicated greater consumption of ultra-processed foods in this place, in addition to indicating an association between greater consumption of ultra-processed foods with the habit of eating while watching television, and overweight in children. And just like parents/caregivers, studies recognize the importance of the school in the development of good eating habits, and some studies have reported an increase in the consumption of fresh foods by students when guided by educators.

In short, this review demonstrated the importance of working together between parents and teachers in the development of healthy eating habits in children in early childhood, mainly due to the strong influence of large food companies on this audience. Thus, nutritional education is necessary both in the family and school environment during the early stages of development of individuals, aiming to maintain physical and mental health throughout life.

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