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Eating habits in front of the television: a population-based study in Criciúma, Santa Catarina

Hábito de comer em frente à televisão: um estudo de base populacional em Criciúma, Santa Catarina

Abstract

Introduction: Diet has undergone several transformations over time, especially with the introduction of electronic devices such as cell phones and television. These technological advances have altered the population's eating habits, potentially influencing the quality of their diet and their relationship with food. Therefore, it is important to investigate the factors associated with the habit of eating while watching TV, especially across different age groups. *Objective*: This study aimed to determine the factors associated with the habit of eating while watching TV among adults and older adults in the city of Criciúma, located in southern Santa Catarina. *Method*: This is a cross-sectional, population-based study conducted between March and December 2019. The sample consisted of 820 individuals, with a predominance of females (63.8%) and participants aged 60 or older (45%). Data collection included sociodemographic information, dietary habits, and behavioral patterns. Statistical analysis was performed to identify associations between the habit of eating while watching TV and variables such as age, skin color, and consumption of ultra-processed foods. *Results*: The prevalence of the habit of eating while watching TV was 38.5%. After adjusted analysis, it was observed that younger individuals had a higher prevalence of this habit (PR 2.11 [95%CI 1.69;2.34]; p<0.001), with an inverse linear trend in relation to age (p<0.001). The skin color was also significantly associated with the habit of eating while watching TV (PR 1.43 [95%CI 1.12;1.82]; p=0.006). This finding highlights the multifactorial nature of eating while watching TV.

Keywords: Eating habits. Food intake. Food consumption.

Resumo

Introdução: A alimentação passou por diversas transformações ao longo do tempo, especialmente com a inserção de dispositivos eletrônicos, como celulares e televisão (TV). Esses avanços tecnológicos alteraram os hábitos alimentares da população, influenciando a qualidade da alimentação e a relação com a comida. Dessa forma, torna-se relevante investigar os fatores associados ao hábito de comer em frente à TV, sobre tudo em diferentes faixas etárias. *Objetivo*: O presente estudo teve como objetivo verificar os

fatores associados ao hábito de comer em frente à TV em adultos e idosos da cidade de Criciúma, localizada no Sul Catarinense. *Método*: Trata-se de um estudo transversal de base populacional, conduzido entre março e dezembro de 2019. A amostra foi composta por 820 indivíduos, com predomínio do sexo feminino (63,8%) e idade de 60 anos ou mais (45%). A coleta de dados incluiu informações sociodemográficas, hábitos alimentares e comportamentais. A análise estatística foi realizada para identificar associações entre o hábito de comer assistindo TV e variáveis como idade, cor da pele e consumo de alimentos ultraprocessados. *Resultados*: A prevalência do hábito de comer assistindo TV foi de 38,5%. Após análise ajustada, observou-se que os indivíduos mais jovens apresentaram maior prevalência desse hábito (RP 2,11 [IC95% 1,69;2,34]; p<0,001), com uma tendência linear inversa em relação à idade (p<0,001). A variável "cor da pele" também apresentou maior relação com o hábito de comer assistindo TV [RP 1,43 [IC95% 1,12;1,82]; p=0,006). Esse achado mostra evidências importantes de que o hábito de comer assistindo TV está associado com diferentes fatores.

Palavras-chave: Hábito alimentar. Ingestão de alimentos. Consumo alimentar.

INTRODUCTION

Diet is an important factor in biological, social, and environmental functions. Eating behaviors have changed over time, especially with the widespread use of electronic devices, such as cell phones and television (TV), which have begun to influence eating habits. The habit of watching TV has become increasingly common in people's daily lives and has interfered with food choices and eating habits, levels of physical activity, and overweight.[1]

Eating while watching TV generally increases both immediate and long-term energy intake.[2] The study by Maia et al.[3] analyzed data from the Surveillance System for Risk and Protective Factors for Chronic Diseases via Telephone Survey (Vigilância de Doenças Crônicas por Inquérito Telefônico — VIGITEL) between 2006 and 2014, investigating the association between the habit of watching television for at least three hours a day and food consumption among the adult population in the 26 state capitals of Brazil and the Federal District. The results indicated that, although the frequency of adults watching TV for at least three hours a day did not vary significantly over the years, these individuals showed reduced consumption of healthy foods and increased consumption of unhealthy foods. In this study, healthy foods were defined as fruits, vegetables, whole grains, legumes, lean meats, and low-fat dairy products, while unhealthy foods included ultra-processed foods, sugary drinks, and products high in saturated and trans fats and sodium. This association was observed in both sexes and across all age groups and educational levels analyzed.[3]

Furthermore, excessive television viewing is associated with negative outcomes, such as increased BMI, inadequate consumption of healthy foods, and excessive consumption of unhealthy foods. There is an increase in the excessive consumption of carbonated and sugary beverages and fast food, inadequate intake of fruits and dairy products, as well as a sedentary lifestyle.[4]

Contemporary society, marked by individualistic and competitive values, imposes a fast-paced rhythm that affects various aspects of daily life, including eating. In this cultural context, which prioritizes productivity and efficiency, there is a reduction in time dedicated to meals, disregard for mealtimes, and an increase in distractions during the act of eating. Often, eating occurs simultaneously with other activities, such as using electronic devices or multitasking, a behavior that has become increasingly common. Eating while distracted is associated with a reduced perception of the initial signs of satiety and a lower awareness of the amount of food consumed, since attention is divided between the act of eating and other demands. Thus, distraction — initially understood as a social effect of the modern pace of life — manifests itself concretely in individual eating behavior, influencing how people relate to food and regulate their food intake.[5]

Bolhuis's[6] study sought to evaluate the effects of the "soup spoonful" portion size, in a focused or distracted state, on *ad libitum* consumption and the estimation of the amount consumed in 53 healthy adults. The proposed methodology considered different states of attention: a distracted state — in which participants watched an animated film for 15 minutes during consumption, knowing they would be questioned later about the content — and a focused state, in which they were instructed to concentrate on the taste and flavor of the dish. The same soup was offered to participants under three conditions: small, large, or unlimited spoonfuls. Consumption under the "small spoonfuls" condition was 30% lower than under the "large spoonfuls" and "unlimited spoonfuls" conditions, in both states of attention (focused and distracted). Furthermore, consumption was 5 to 11% higher when subjects were distracted than when they were focused.[6] Another study, conducted by Oldham-Cooper et al.,[7] demonstrated that participants in a distracted state consumed 100% more food than those in a non-distracted state.

A systematic review, which analyzed 71 studies on the impact of food marketing on the food preferences and consumption of children aged 0 to 18, found that television commercials for unhealthy foods

and food marketing strategies are motivational factors in food consumption, with a strong link to childhood obesity.[7] Furthermore, another systematic review investigated the influence of food advertising on children's eating habits. The results indicated that the media plays a central role in broadcasting advertisements that can induce misconceptions about the nutritional quality of foods, influencing both families and children to believe that these products are suitable or beneficial for consumption.[8,9]

Although there is already consensus within the scientific community regarding the effects of TV exposure, no articles have been found that link eating while watching TV among adults to socioeconomic factors. Therefore, this study aimed to identify the factors associated with the habit of eating while watching TV among adults and older adults in the city of Criciúma, state of Santa Catarina.

METHODS

This is a cross-sectional analysis using data from the population-based study "Saúde da população criciumense" (Health of the population of Criciúma), conducted between March and December 2019 in the municipality of Criciúma, located in the state of Santa Catarina. Criciúma has approximately 214,000 inhabitants, a per capita gross domestic product (GDP) of R$45,871.13, and a Human Development Index (HDI) of 0.788.[10]

The "Saúde da população criciumense" study was approved by the Research Ethics Committee of the Universidade do Extremo Sul Catarinense (University of the Far South of Santa Catarina) in December 2018 under protocol number 3,084,521. The study population consisted of individuals aged 18 years or older residing in the urban area of the municipality. Institutionalized individuals were excluded from the study.

The sampling process was carried out in two stages, based on data from the 2010 Demographic Census, selecting first the primary sampling units — census tracts— and subsequently the secondary units — households. To this end, all 306 urban census tracts with private properties in the municipality of Criciúma were listed and ordered by sector code. Subsequently, 25% of these sectors were randomly selected, yielding 77 census tracts with a total of 15,218 households. A number of households proportional to the size of each sector was then selected, totaling 618 systematically selected households. All residents aged 18 years or older in these households were invited to participate in the study.

After agreeing to participate and signing the Informed Consent Form, participants responded to the research questionnaire, which was administered by trained interviewers. A single standardized questionnaire was used, containing sociodemographic, behavioral, and health information.

The outcome of interest — the habit of eating while watching TV — was assessed using the question "Do you usually eat while watching TV?", with response options "no" and "yes", as used in the Chronic Disease Surveillance via Telephone Survey (Vigilância de Doenças Crônicas por Inquérito Telefônico — VIGITEL), conducted by the Ministry of Health.[11]

The exposure variables studied were: sex (male, female), age group (recorded in full years and categorized as 18–29, 30–39, 40–49, 50–59, ≥60), living with a spouse/partner (no, yes), skin color (white, black, brown; individuals with indigenous or Asian skin color were excluded due to the low number of observations), education level (collected in full years and categorized as 0–4, 5–8, 9–11, and 12 or more), monthly income in Brazilian reais (up to 1,000.00, 1,001.00–2,000.00, and ≥2,001.00), currently employed (no, yes), and skipping main meals (collected via the question "I will read out some meals, and I would like you to tell me which ones you usually eat"), with breakfast, lunch, and dinner considered the main meals.

Categorized as "yes" and "no": skipping breakfast ("yes" and "no"); poor diet quality ("yes" and "no"); regular consumption of ultra-processed foods ("yes" and "no"); Poor self-reported dietary perception (assessed via the question "How do you rate your diet?", categorized as "yes" and "no"); Poor self-reported health perception (assessed using the question "In general, how do you rate your health?", categorized as "no" and "yes"); overweight (assessed using self-reported weight and height at the time of the interview and classified using the Body Mass Index). Overweight was defined as a BMI ≥25 kg/m² for adults up to 59 years of age,[12] and a BMI ≥27 kg/m² for older adults aged 60 and over;[13] categorized as "no" and "yes"; insufficient physical activity (no, yes); and self-reported poor sleep quality (assessed using the question "How do you rate the quality of your sleep?" and categorized as "yes" and "no").

Diet quality was assessed using the dietary indicator proposed by Francisco et al.[14] for Brazilian adults and older adults. This indicator was developed based on a set of foods considered healthy or protective against chronic diseases (fruits, vegetables, and milk) and foods considered unhealthy or that increase the risk of chronic diseases (sweets, soft drinks or processed juices, and red meat). Considering the frequency of consumption of each food, the questions had the following response options: "never," "almost never," "one or two days a week," "three or four days a week," "five or six days a week," and "every day (including weekends)."

According to the "diet" indicator, depending on the food and frequency of consumption, a score of zero to four points was assigned to the responses. Individuals who consumed healthy foods every day of the week received zero points, while those who never or almost never consumed them received four points. For unhealthy foods, an inverse score was calculated; that is, zero points were assigned to individuals who never or almost never consumed them, and four points to those who consumed them every day of the week. The total score consisted of the sum of the food items, ranging from 0 (best dietary quality) to 28 points (worst dietary quality).[15]

The ultra-processed foods listed for the analysis of regular consumption were: soda; fruit juice in cartons, boxes, or cans; powdered soft drinks; chocolate-flavored drinks; flavored yogurt; packaged snacks (or chips) or savory crackers; sweet cookies, filled cookies, or packaged cakes; chocolate, ice cream, gelatin, flan, or other processed desserts; sausages, hot dogs, bologna, or ham; sandwich bread, hot dog buns, or hamburger buns; mayonnaise, ketchup, or mustard; margarine; instant noodles, packet soup, frozen lasagna, or other frozen ready-to-eat meals. Regular consumption was defined as consumption on 5 or more days in the past week.

Physical activity was assessed using the long version of the International Physical Activity Questionnaire (IPAQ), which takes into account physical activity related to commuting, work, and leisure time,[16] during the week prior to the interview. Engaging in 150 minutes or more of physical activity per week was classified as sufficient physical activity, and less than 150 minutes was classified as insufficient physical activity.[17]

The collected data were reviewed, coded, and double-entered into EpiData 3.1 software.

Descriptive analyses were performed for all studied variables, presenting absolute (n) and relative (%) frequencies as well as their respective 95% confidence intervals (95%CI).

For crude analyses of the association between the exposure variables studied and the habit of eating while watching TV, Pearson's chi-square test was used, with a significance level of 5%.

Adjusted analyses were conducted to verify whether the association between the habit of eating while watching TV and the exposure variables was independent of potential confounding factors. For this purpose, adjusted Poisson regression was used, following the hierarchical analysis model (level 1: sex, age group, and

skin color; level 2: income, education, living with a partner, and current employment).[18] The regression results were expressed as prevalence ratios (PR) and their corresponding 95%CI.

All analyses were performed in STATA version 12.1 using the svy prefix, which accounts for the complexity of the sampling process and the effect of the study design.

RESULTS

The total study sample consisted of 820 individuals (response rate of 86.1%). The majority were female (63.8%), lived with a spouse or partner (65.1%), were white (82.5%), and were employed (64.0%). Regarding age, 45.0% were 60 years of age or older (mean age: 54.4 ± 17.4), about one-third had 9 to 11 years of schooling (32.5%), and an income of up to 1,000.00 reais (39.9%) (Table 1). Three hundred and sixteen individuals reported the habit of eating while watching TV, that is, 40.8% of the sample.

The crude analysis of the association between sociodemographic characteristics and the habit of eating while watching TV is presented in Table 1. A higher prevalence of this outcome was observed among individuals aged 18 to 29 years, compared to those aged 60 years or older (63.4% vs. 30.1%, p<0.001); among individuals who did not live with a spouse/partner, compared to those who did (46.0% vs. 38.1%, p=0.033); among individuals with black skin color, compared to those with white skin color (62.5% vs. 39.6%, p=0.006); among those with up to 4 years of schooling, compared to those with 12 or more years of schooling (27.3% vs. 44.1%, p<0.001); and among those who were employed, compared to those who were not (48.0% vs. 36.6%, p=0.002). After adjusted analysis, only the associations with age group and skin color remained significant. Compared to individuals aged 60 years or older, all younger age groups showed a higher prevalence of eating while watching TV (18–29 years: PR=2.11; 95%CI 1.69;2.34. 30–39 years: PR=1.66; 95%CI 1.28;2.16. 40–49 years: PR=1.88; 95%CI 1.47;2.41. 50–59 years: PR=1.29; 95%CI 1.01;1.66). Individuals with black skin color had a higher prevalence of the habit of eating while watching TV (PR=1.43; 95%CI 1.12;1.82), when compared to individuals with white skin color.

This study also assessed the association between dietary and health habits and the habit of eating while watching TV (Table 2). In the crude analysis, individuals with poor diet quality had a higher prevalence of eating while watching TV compared to those with better diet quality (44.9% vs. 33.7%, p=0.003) and those who consumed ultra-processed foods compared to those who did not (51.6% vs. 36.6%, p<0.001). After adjusted analysis, only the association with the consumption of ultra-processed foods remained significant. Individuals who consumed ultra-processed foods had a 49% higher prevalence of the habit of eating while watching TV compared to those who did not consume ultra-processed foods (PR=1.49; 95%CI 1.18;1.88).

Table 1. Description of the individuals studied and crude and adjusted analysis of the association between eating habits while watching TV and the sociodemographic variables studied. Criciúma, SC, Brazil, 2019. (n=820).

			Eating habits while watching TV			
	Total		Crude analysis			Adjusted analysis
Variables	n	%(95% CI%)	n	%	p value*	PR (95% CI%)**
Sex					0.581	
Male	297	36.2 (33.0-39.6)	120	42.1		1.00
Female	523	63.8 (60.4-67.0)	196	40.1		0.97 (0.82;1.15)
Age range (completed years)						
18-29	101	12.3 (10.2-14.8)	56	63.4	<0.001	**2.11 (1.69;2.34)**
30-39	93	11.3 (9.3-13.7)	44	50.0		**1.66 (1.28;2.16)**
40-49	85	10.4 (8.5-12.6)	46	56.1		**1.88 (1.47;2.41)**
50-59	172	21.0 (18.3-23.9)	64	39.0		**1.29 (1.01;1.66)**
≥60	369	45.0 (41.6-48.4)	106	30.1		1.00
Lives with partner					0.033	
No	286	34.9 (31.7;38.2)	122	46.0		1.00
Yes	534	65.1 (61.8;68.3)	194	38.1		0.89 (0.75;1.05)
Skin color[a]					0.006	
White	660	82.5 (79.7-85.0)	249	39.6		1.00
Black	49	6.1 (4.7-8.0)	30	62.5		**1.43 (1.12;1.82)**
Brown	91	11.4 (9.4-13.8)	30	37.0		0.93 (0.69;1.25)
Education (completed years)					<0.001	
0 to 4	219	26.7 (23.8-29.9)	56	27.3		0.85 (0.61;1.18)
5 to 8	220	26.9 (23.9-30.0)	96	47.1		1.27 (0.98; 1.65)
9 to 11	266	32.5 (29.4-35.8)	115	45.5		1.08 (0.85;1.38)
12 or more	114	13.9 (11.7-16.5)	49	44.1		1.00
Monthly income (in BRL)					0.638	
Up to 1,000.00	317	39.9 (36.5-43.3)	125	42.7		1.00
1.001.00–2,000.00	248	31.2 (28.1-34.5)	91	38.7		0.86 (0.70;1.07)
≥2,001.00	230	28.9 (25.9-32.2)	93	41.9		0.97 (0.78;1.21)
Currently working					0.002	
No	294	36.0 (32.8-39.3)	180	36.6		1.00
Yes	523	64.0 (60.7-67.2)	134	48.0		1.04 (0.87;1.25)

95% CI: 95% confidence interval.[a]Yellow and Indigenous individuals were excluded (n=18). PR: prevalence ratio. *Pearson's Chi-square test. **Poisson regression.

Table 2.Description of the individuals studied and crude and adjusted analysis of the association between eating habits while watching TV and the behavioral and health variables studied. Criciúma, SC, Brazil, 2019. (n=820).

			Eating habits while watching TV			
	Total		Crude analysis			Adjusted analysis
Variables	n	%(95% CI%)	n	%	p value*	PR (95% CI%)**
Skipping main meals[a]					0.379	
No	615	75.2 (72.1;78.0)	70	38.0		1
Yes	203	24.8 (22.0;27.9)	246	41.7		1.07 (0.99;1.16)
Skipping breakfast					0.080	
No	739	90.3 (88.1;92.2)	281	39.9		1
Yes	79	9.7 (7.8;11.9)	35	50.7		1.11 (0.70;1.75)
Poor diet quality					0.003	
No	287	35.3 (32.0;38.6)	91	33.7		1
Yes	527	64.7 (61.4;68.0)	225	44.9		1.09 (0.98;1.21)
Consumption of ultra-processed foods					<0.001	
No	586	71.7 (68.5;74.7)	203	36.6		1
Yes	231	28.3 (25.3;31.5)	113	51.6		1.49 (1.18;1.88)
Poorer perception of diet					0.103	
No	603	73.7 (70.6;76.6)	225	39.1		1
Yes	215	26.3 (23.3;29.4)	91	45.7		1.05 (0.82;1.34)
Poor perception of health					0.715	
No	706	86.3 (83.8;88.5)	270	40.4		1
Yes	112	13.7 (11.5;16.2)	44	42.3		1.27 (0.88;1.84)
Overweight					0.272	
No	333	42.8 (39.3;46.3)	120	38.2		1
Yes	446	57.3 (53.7;60.7)	177	42.2		1.09 (0.96;1.24)
Insufficient physical activity					0.976	
No	205	25.1 (22.3;28.2)	80	40.8		1
Yes	611	74.9 (71.8;77.7)	234	40.7		1.03 (0.95;1.12)
Poor sleep quality					0.465	
No	425	51.8 (48.4;55.2)	162	39.6		1
Yes	395	48.2 (44.8;51.6)	154	42.2		1.07 (0.92;1.24)

95% CI: 95% confidence interval. PR: prevalence ratio. [a]Breakfast, lunch, and dinner. *Pearson's Chi-square test. **Poisson regression.

DISCUSSION

The present study showed that the habit of eating while watching TV was associated with age group, skin color, and consumption of ultra-processed foods. The study showed that the habit of eating while watching TV is more prevalent among young people, with a decrease in this behavior as age increases. A significant association was also observed between this habit and skin color, with a higher prevalence among Black individuals. Furthermore, the consumption of ultra-processed foods was strongly related to the habit of eating while watching TV, and this association was maintained after adjusting for potential confounding factors. On the other hand, the association with diet quality was observed only in the crude analysis and did not hold after adjustment. These results highlight the importance of sociodemographic and behavioral factors, such as the consumption of ultra-processed foods, in the adoption of this habit.

TV exposure can influence food intake in distinct ways, and most studies observe these effects on body composition, such as BMI. An analysis of the 2015 National School Health Survey (Pesquisa Nacional de Saúde do Escolar — PeNSE) indicated that excessive TV viewing time, combined with daily consumption of ultra-processed foods, increased the positive association between TV time and BMI, especially in the upper percentiles of the BMI distribution. Dutra et al.[19] assessed 810 adolescents aged 10 to 19 years in Pelotas, Rio Grande do Sul, and found that 19.3% of the participants were overweight. The analysis revealed that adolescents who watched television for four hours or more daily had a higher prevalence of overweight. Specifically, among females, watching television for more than four hours a day was significantly associated with overweight.[19-21]

The study by Marquis et al.[22] sought to understand children's eating habits and their relationship to eating while watching TV. Data were collected from 534 ten-year-old French-Canadian children. Nearly 18% of girls and more than 25% of boys reported eating while watching TV every day. All of the children's dietary choices worsened with increased frequency of eating while watching TV. For boys, significant correlations were found between the frequency of eating while watching TV, the importance placed on a food's appearance, and their requests to parents for advertised foods.[22]

Another study assessed screen time and the prevalence of consuming meals and snacks in front of screens among Brazilian adolescents. A total of 74,589 adolescents aged 12 to 17 from 1,247 schools in 124 Brazilian municipalities were evaluated. More than half of the adolescents (56.6%, 95%CI 55.4–57.8) reported eating meals almost always or always in front of the TV, and 39.6% (95%CI 38.8–40.5) consumed snacks in front of screens with the same frequency. Both situations were more prevalent among girls who attended public schools and those from the Midwest region.[23]

Another study assessed food consumption while watching TV among 153 women (19.8 ± 2.7 years) and 58 men (21.1 ± 4.0 years). An interaction between TV viewing and gender was observed during lunch and dinner, with women consuming more snacks while watching TV. In the recall, all participants underestimated the number of snacks consumed, with this underestimation being dependent on the amount actually ingested.[2]

A systematic review on the associations between eating while watching TV and food and beverage intake among children, including articles published between 2000 and June 2014, was conducted by Avery et al.,[24] who reported significant findings regarding these two factors. Six studies found a positive association between watching TV and eating pizza, fried foods, sweets, and snacks. Eight studies analyzed fruit and vegetable consumption, of which seven identified a negative association with eating while watching TV. Four out of five studies identified a positive association between watching TV while eating and servings of sugar-

sweetened beverages. Four studies identified an association between low socioeconomic status and a higher likelihood of eating while watching TV.[24]

Silva et al.[25] identified the prevalence and factors associated with the consumption of ultra-processed foods among Brazilian adolescents based on the results of the 2015 National School Health Survey (PeNSE2015). Among the 16,324 adolescents studied, the prevalence of ultra-processed food consumption was 75.4%, and several factors were independently associated with this outcome: age under 15 years, daily sitting time exceeding four hours, eating while watching TV or studying for more than four days a week, daily TV viewing time exceeding three hours, breakfast frequency of less than four days a week, owning a cell phone, no maternal education, being enrolled in a private school, and living in an urban area.[25]

Adolescents' eating habits are more susceptible to media influence compared to adults. The media commonly imposes dietary practices and ideal body types, negatively affecting food consumption. Furthermore, the media appears to influence what is consumed, as this is related to social status.[26]

When assessing differences in food intake among the Brazilian population in 2017 and 2018 by race/skin color, using results from the Family Budget Survey (Pesquisa de Orçamentos Familiares — POF) for those years, it was observed that consumption of fresh/minimally processed foods was lower among Asians than among Black and Brown individuals.

Asians consumed fewer processed foods, accounting for 9.2% of calories, while the other groups consumed approximately 13%. Ultra-processed foods were consumed less by Black and Brown individuals, and the highest consumption occurred among White and Asian individuals.[27]

Analyzing the sociodemographic factors associated with the consumption of ultra-processed foods in Brazil between 2008 and 2018, it was observed that these foods accounted for 19.7% of the calories consumed by the population. The adjusted analysis showed that consumption was higher among males and in the South and Southeast regions (vs. the North), and lower among Black people (vs. White people) and in rural areas, in addition to decreasing with increasing age and increasing with education and income.[28]

The literature still lacks information on who the people are who eat while watching television and what the effects of this behavior are not only on food intake but also on diet quality and these individuals' relationship with food, considering that the use of electronic devices appears to influence eating behavior. In this regard, the development of studies on this topic is essential to support more targeted and effective prevention efforts.

The present study has some limitations that should be considered when interpreting the results. As this is a cross-sectional study, conducted at a single point in time, it was not possible to establish causal relationships between the variables analyzed. Furthermore, the exclusion of institutionalized individuals may have limited the representativeness of the general population. Another aspect to consider is that, although the sample was selected randomly, the use of self-reported data may have introduced biases related to participants' memory or perception.

CONCLUSION

This study evaluated the association between the habit of eating while watching TV and sociodemographic, behavioral, and health factors among adults residing in Criciúma in 2019.

The results revealed that the habit of eating while watching TV is strongly associated with sociodemographic variables, such as age and skin color. It was observed that younger individuals exhibited a

higher prevalence of this behavior, with a progressive decrease as age increased. Furthermore, skin color was also a significant variable, with Black individuals showing a stronger association with this habit. Regarding dietary habits, the consumption of ultra-processed foods was consistently associated with the habit of eating while watching TV, in both the crude and adjusted analyses. On the other hand, "poor diet quality" was associated with the behavior in the crude analysis, but this association did not hold after adjustment.

These findings suggest that, in addition to sociodemographic factors, specific eating behaviors, such as the consumption of ultra-processed foods, play an important role in the adoption of the habit of eating while watching television. Future studies are recommended to deepen the understanding of this behavior, investigating not only its possible adverse effects but also the factors that contribute to its persistence and the magnitude of its occurrence in the population. Understanding these aspects is essential for developing effective strategies to promote adequate and healthy eating, thereby contributing to improving the population's quality of life.

REFERENCES

1. Ávila, B. O.; Polônio, M. L. T.; Azevedo, A. M. F.; Maldonado, L. A. Relação mídia/saúde: análise de propagandas de alimentos direcionadas ao público infanto-juvenil. Nutrição Brasil, maio/junho de 2006; 5(3):143-149

2. Francis HM, Stevenson RJ, Oaten MJ, Mahmut MK, Yeomans MR. The Immediate and Delayed Effects of TV: Impacts of Gender and Processed-Food Intake History. Front Psychol. 2017 Sep;8. https://doi.org/10.3389/fpsyg.2017.01616

3. Maia EG, Gomes FMD, Alves MH, Huth YR, Claro RM. Hábito de assistir à televisão e sua relação com a alimentação: resultados do período de 2006 a 2014 em capitais brasileiras. Cad Saúde Pública. 2016;32(9). https://doi.org/10.1111/ped.12834

4. Alghadir AH, Gabr SA, Iqbal ZA. Television watching, diet and body mass index of school children in Saudi Arabia. Pediatr Int. 2015 Dec 29;58(4):290-4. https://doi.org/10.1111/ped.12834

5. Polacow V, Costa AC, Figueiredo M. Comer com atenção plena (mindfuleating). In: Alvarenga M, et al., editors. Nutrição Comportamental.Barueri: Manole, 2015.

6. Bolhuis DP, Lakemond CMM, de Wijk RA, Luning PA, de Graaf C. Consumption with large sip sizes increases food intake and leads to underestimation of the amount consumed. PLoS ONE. 2013 Jan 23;8(1):e53288. https://doi.org/10.1371/journal.pone.0053288

7. Oldham-Cooper RE, Hardman CA, Nicoll CE, Rogers PJ, Brunstrom JM. Playing a computer game during lunch affects fullness, memory for lunch, and later snack intake. Am J Clin Nutr. 2010 Dec 8;93(2):308-13. https://doi.org/10.3945/ajcn.110.004580

8. Russell SJ, Croker H, Viner RM. The effect of screen advertising on children's dietary intake: A systematic review and meta-analysis. Obes Rev. 2019;20(4):554-68. https://doi.org/10.1111/obr.12812

9. Santana MKL, Oliveira CM, Clemente HA. Influência da publicidade de alimentos direcionada ao público infantil na formação de hábitos alimentares. RevUni-RN. 2015;14(1/2):125-36.

10. Instituto Brasileiro de Geografia e Estatística (IBGE). Criciúma (SC) - Pesquisa 37 - 30255 [Internet]. Rio de Janeiro: IBGE; 2010 [citado em 12 março 2025]. Disponível em: https://cidades.ibge.gov.br/brasil/sc/criciuma/pesquisa/37/30255?ano=2010.

11. Bernal RTI, Iser BPM, Malta DC, Claro RM. Sistema de Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico (Vigitel): mudança na metodologia de ponderação. EpidemiolServ Saúde. 2017;26:701-12. https://doi.org/10.5123/S1679-49742017000400003

12. World Health Organization (WHO). WHO Expert Committee on Physical Status: the Use and Interpretation of Anthropometry: report of a WHO expert committee. Geneva: WHO; 1995.

13. Lipschitz DA. Screening for nutritional status in the elderly. PrimCare. 1994;21(1):55-67. https://doi.org/10.1016/S0095-4543(21)00452-8

14. Francisco PMSB, Assumpção DD, Borim FSA, Senicato C, Malta DC. Prevalence and co-occurrence of modifiable risk factors in adults and older people. Rev Saúde Pública. 2019 Oct 21;53:86. https://doi.org/10.11606/s1518-8787.2019053001142

15. Meller FO, Manosso LM, Schäfer AA. The influence of diet quality on depression among adults and elderly: A population-based study. J Affect Disord. 2021 Mar 1;282:1076-81. https://doi.org/10.1016/j.jad.2020.12.155

16. IPAQ Research Committee. Guidelines for Data Processing and Analysis of the International Physical Activity Questionnaire (IPAQ) – Short and Long Forms. [S.l: s.n.], 2005.

17. World Health Organization (WHO). WHO guidelines on physical activity and sedentary behaviour. Geneva: WHO; 2020.

18. Victora CG, Huttly SR, Fuchs SC, Olinto MT. The role of conceptual frameworks in epidemiological analysis: a hierarchical approach. Int J Epidemiol. 1997 Feb;26(1):224-7. https://doi.org/10.1093/ije/26.1.224

19. Dutra CL, Araújo CL, Bertoldi AD. Prevalência de sobrepeso em adolescentes: um estudo de base populacional em uma cidade no Sul do Brasil. Cad Saúde Pública. 2006;22(1):151-62. https://doi.org/10.1590/S0102-311X2006000100016

20. Lourenço CLM, Christofoletti M, Malta DC, Mendes EL. Associação entre tempo excessivo frente à TV e índice de massa corporal em adolescentes brasileiros: uma análise de regressão quantílica da PeNSE, 2015. Ciênc Saúde Coletiva. 2021;26(11):5817-28. https://doi.org/10.1590/1413-812320212611.28352020

21. Mathur U, Stevenson RJ. Television and eating: repetition enhances food intake. Front Psychol. 2015 Nov 3;6. https://doi.org/10.3389/fpsyg.2015.01657

22. Marquis M, Filion YP, Dagenais F. Does eating while watching television influence children's food-related behaviours? Can J Diet Pract Res. 2005 Mar;66(1):12-8. https://doi.org/10.3148/66.1.2005.12

23. Oliveira JS, Barufaldi LA, Abreu GDA, Leal VS, Brunken GS, Vasconcelos SML, Dos Santos MM, Bloch KV. ERICA: uso de telas e consumo de refeições e petiscos por adolescentes brasileiros. Rev Saúde Pública. 2016;50(supl 1):7. https://doi.org/10.1590/S01518-8787.2016050006680

24. Avery A, Anderson C, McCullough F. Associations between children's diet quality and watching television during meal or snack consumption: A systematic review. MaternChild Nutr. 2017 Feb 17;13(4):e12428. https://doi.org/10.1111/mcn.12428

25. Silva JB, Elias BC, Warkentin S, Mais LA, Konstantyner T. Factors associated with the consumption of ultra-processed food by Brazilian adolescents: National Survey of School Health, 2015. Rev Paul Pediatr. 2022;40. https://doi.org/10.1590/1984-0462/2022/40/2020362

26. Santos C, Deise, Lucinéia de Pinho. Consumo de alimentos ultraprocessados por adolescentes. Adolescência e Saúde. 2019 Jan 1;16(2):56-63.

27. Costa JC, Jesus AC da S de, Jesus JGL de, Madruga MF, Souza TN, Louzada ML da C. Differences in food consumption of the Brazilian population by race/skin color in 2017–2018. Rev Saúde Pública. 2023 Feb 20. https://doi.org/10.11606/s1518-8787.2023057004000

28. Louzada ML da C, Cruz GL da, Silva KAAN, Grassi AGF, Andrade GC,Rauber F, et al. Consumo de alimentos ultraprocessados no Brasil:distribuição e evolução temporal 2008–2018. Revista de Saúde Pública[Internet]. 2023 Mar 15:57(1):12–2. [Acesso em 23 maio 2023]. Disponível em: https://www.revistas.usp.br/rsp/article/view/209656/192621

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