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A qualitative study of Brazilian children's habits

Brazilian
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Abstract

Purpose – The purpose of this paper is to investigate television viewing habits of children from low-income families, their consumption of fruits, vegetables and snacks, as well as their spending habits.

Design/methodology/approach – 11 focus groups were conducted with 54 public school students aged seven to ten years, divided by sex and age. Transcription of the discussions was processed by content analysis. Family income was indirectly assessed through classification of parents' occupations.

Findings – The habit of watching television was very present in the students' routines, as was eating in front of the television set. Eating fruits and vegetables was a habit, but frequent consumption of snack foods was also reported. Students had money of their own to spend independently and did it mostly on snacks. Parental interference over their habits was not perceived by the students. Television watching was a regular activity not only for the children, but also for their families. Even though research design could not establish a causal relationship, consumption and acquisition of unhealthy food items was routine, as well as watching television.

Research limitations/implications – Results are of local nature and findings may differ from those of other regions or countries. Also, students were conveniently selected, and as volunteers they may have been more likely to have an interest in matters related to nutrition, or could have misreported their eating behaviours to be more socially desirable than they actually were.

Originality/value – Qualitative investigation regarding television viewing habits, food choices and purchases of Brazilian low-income children.

Keywords Consumer behaviour, Children, Television, Dietary intake

Paper type Research paper

Introduction

Watching television stimulates consumption of advertised food products, which are frequently rich in fat, sugar and salt (Cairns and Hastings, 2009).

In Brazil, there are no governmental policies regulating timing and content of television advertisements directed at children. A 2006 analysis of 1,040 h of broadcasting from cable and pay-TV channels directed to children found that 72 percent of food advertisements were for unhealthy foods (Monteiro *et al.*, 2008).

The food industry aims a large portion of its advertising at children because of the purchasing power they have as primary consumers, and as influencers of family expenses (McNeal, 1998). Brazil has 50 million children, 80 percent of them living in urban areas, and therefore with access to industrialized goods (Brazilian Federal Bureau of Geography and Statistics, 2000). Nevertheless, more than half of the Brazilian population lives on an average monthly family income of approximately US\$500 (Brazilian Federal Bureau of Geography and Statistics, 2004). Families with unfavorable economic conditions are more likely to ingest diets rich in energy, sugars and fats because of the low-cost of such foods (Darmon and Drewnowski, 2008), and parents with



worse economic conditions are more likely to give into the requests of their children, especially concerning the food products advertised on television (Hastings *et al.*, 2006).

In Brazil, studies focusing on children's food purchases are scarce. Many studies, however, have been conducted in different countries (McNeal, 1998; Olivares *et al.*, 2003; Özgen, 2003; Mazur *et al.*, 2008), although not exclusively with children of unfavorable economic conditions. We aimed to qualitatively investigate television viewing habits in a group of children from low-income families, in order to explore possible influences over their spending habits and their consumption of fruits, vegetables and snacks.

Method

Study's protocol conformed to the institution's Human Research Ethics Committee. Study was conducted at a urban public school located in Florianopolis, the capital of one of Brazil's southernmost provinces. All first to fourth grade students (162) were invited to participate and fully informed consent was obtained from parents or caregivers. This age group (seven to ten years) was chosen because they already understand the persuasive intention of advertising and usually have money of their own to spend, making independent purchases (McNeal, 2000; Dotson and Hyatt, 2005).

Student's family income was indirectly assessed through classification of parents' occupation (data collected from school registration cards). A hierarchical structure proposed by Brazil's Ministry of Labor was used to classify occupations according to the nature of the work, level and type of skills required. Classification ranged from Level 1 (performing tasks of greater complexity and with higher remuneration) to Level 9 occupations (unskilled workers and non-specialized professionals, who receive lower incomes) (Ministry of Labor, 2002).

The focus group technique (Krueger and Casey, 2000) was chosen because it promotes generation of ideas and minimizes direct questioning, what is especially important when working with children. Focus groups were conducted in November and December 2008, led by a single moderator (first author), while an observer took notes. Each group consisted of four to six students divided by sex and age. Groups were conducted in a room with little furniture and decoration to avoid distraction, within the school setting and during school hours. Before beginning each session the moderator introduced herself, explained how the activity would be conducted and that the children's voices would be recorded. A semi-structured discussion guide with open-ended questions (pilot conducted in a different school) was used to ensure consistency, yet allow for some flexibility in accordance with the topics raised and level of participation within the groups. Printed images related to the issues being discussed were also displayed as the questions were asked.

Key topics discussed with participants were: television viewing routine, usual ingestion of fruits, vegetables and snack foods, influence of parents over television viewing schedules and consumption of fruits, vegetables and snacks, importance of having money to spend, and spending habits.

The content of the focus group discussions was transcribed verbatim by the moderator, incorporating notes taken by the observer. Content analysis (Bauer and Gaskell, 2002) was used to process the transcript, which was systematically examined in order to identify and group merging issues and themes into categories. Weak and general categories were regrouped until strong or terminal ones emerged. The moderator read the transcript and listened to the recordings a number of times before

proceeding to the first codification. To warrant reliability, the categorization process was done twice in an interval of 15 days, by the moderator.

Results

54 students (24 boys) brought back the signed consent forms, and were divided into 11 groups (five male and six female). Each session lasted 30 min in average. The majority of fathers (77 percent) and 53 percent of the mothers had occupations classified as Level 9 (low specialization and payment, such as janitor, driver, gardener, bricklayer, cleaner), confirming a situation of low socioeconomic status (SES). In Brazil, people in such occupations usually receive no more than US\$600 a month. Also, 26 percent of the mothers did not work, indicating that the families possibly had only one source of income.

Student's comments about key topics are presented in Table I. They were enthusiastic when talking about their television viewing habits, and reported watching during day-long periods only interrupted by school. Preferences included cartoons, movies, soap operas and sitcoms. Most participants indicated not feeling any influence from their parents over such habits. According to them, parental influence was felt only when there was disagreement over what to watch.

Students made positive comments about the taste of fruits and reported eating them usually, when available. Negative comments about the consumption of vegetables,

Category	Comments
Television viewing habits	<p>"In the morning I watch from eight o'clock, when cartoons start in one channel [...] then it ends at noon. Then in the afternoon, when I come home from school, I watch some more [...] shower, eat, then watch the soap opera and go to sleep" (Girl, eight years)</p> <p>"My mother doesn't care, because she likes to watch [...]" (Girl, ten years)</p> <p>"[...] I watch cartoons and my father wants to watch the news and my mother wants to watch the soap opera" (Girl, seven years)</p>
Consumption of fruits, vegetables and snacks	<p>"I like almost every fruit. What I eat more is fruit" (Boy, seven years)</p> <p>"I think I eat salad some four times a week [...] when it is over mom goes to the market [...] but only when she gets paid [...] in the end of the month [...]" (Girl, eight years)</p> <p>"I eat almost every day [...] chocolate bars, chocolate filled candies [...]" (Boy, ten years)</p> <p>"My father does not bother me [about my eating habits]. Nor does my mother [...]" (Boy, nine years)</p> <p>"When I have lunch, it is always in front of the television" (Boy, nine years)</p>
Access to money and purchase activities	<p>"I do things like cleaning the house for my mom, she pays me" (Girl, ten years)</p> <p>"Yesterday I got two bucks, and then today I bought a lot of things. I bought salted snacks, candy, chocolate [...]" (Girl, ten years)</p>

Table I.
Student's comments about key topics

however, were more numerous, especially among the older students. Availability was once again mentioned. Consumption was said to occur mostly at extra-class projects maintained by nongovernmental organizations frequented by them. Fruit and vegetable consumption during school meals was scarcely mentioned.

As to the consumption of snacks, students reported drinking sodas and eating candy, gum, chocolate, ice cream, pre-packaged savoury snacks, and French fries on an everyday basis. Comments did not condition the consumption of snack foods to availability. Most students declared not perceiving controlling attitudes by their parents over their eating habits. The few who declared feeling such control, mentioning their parents' worries about their growth and health, due to their habits of not eating enough vegetables or eating too much sweets.

Eating snack foods (popcorn, chocolate, prepackaged salty snack foods, cookies) while watching television was mentioned as a common practice. Some students said they also had their meals in front of the television, and that it was a family habit. Students only perceived a negative attitude from their parents regarding such habits when they spilled their food or drinks.

Students considered money important mostly for purchasing food and clothing, but also for paying bills and helping their parents. Those who reported having money of their own to spend referred receiving from parents in exchange for doing chores (at home and out of the house) or as change from grocery shopping. They reported already shopping independently, and usually buying low-cost processed food products with their money, especially sweets, candies, gum, chocolate, lollipops and bags of savoury snacks.

Discussion

The majority of students' parents had occupations with low specialization and payment, sometimes only one of them worked. As acknowledged by other researchers (Dorey and McCool, 2009), low-SES groups are indeed more likely to enjoy media related activities than the mid- and high-SES groups. Students reported watching television during day-long periods only interrupted by school. Like most Brazilian students, they did not go to school full-time. In fact, the average Brazilian children remained approximately five hours a day in front of the television in the year of 2005 (Instituto Midiativa, 2006). Participants also indicated watching all sorts of programs, and not feeling influenced by their parents regarding television viewing habits. Lack of parental control over the time that children watch television has been associated to non-healthy habits (Dennison and Edmunds, 2008), to greater exposure to television and to the habit of the parents themselves to watching television (Salmon *et al.*, 2005).

The habit of watching television has been related to a less healthy diet, given that television advertising promotes the consumption of the foods advertised (Buijzen *et al.*, 2008; Barr-Anderson *et al.*, 2009), which in most cases are products of high energy content and low nutritional value (Radnitz *et al.*, 2009).

Students reported eating snack foods every day, but also liking fruits and consuming them frequently. Negative comments about the consumption of vegetables were more numerous. Eating fruits has indeed been reported as more common than eating vegetables (Wind *et al.*, 2005), since children tend to prefer sweet-tasting foods and drinks (Warren *et al.*, 2008).

The near absence of comments regarding fruit and vegetable availability in school meals was an unexpected result, since the school where the present survey was

conducted participates in the National School Meal Program, which provides nutritionally balanced meals to meet 15 percent of the students daily energy needs (Brazil, 2009). Consumption of fruits and vegetables was said to occur mostly at nongovernmental organizations frequented by them. Availability has been identified as an important factor for the consumption of fruits and vegetables, having extreme importance in the development of preferences (Bere and Klepp, 2005; Wind *et al.*, 2005). Dave *et al.* (2010) suggested that parental factors such as practices that promote intake of fruits and vegetables and role modeling must be addressed in order to improve availability of fruits and vegetables at the domestic environment. Many studies also conclude that frequent television spectators tend to consume less fruits and vegetables (Barr-Anderson *et al.*, 2009), but attendance to nongovernmental projects that provide healthy foods appeared to be positively influencing the students' eating habits.

Students reported consuming snacks frequently, not conditioning the habit to home availability or socioeconomic condition. Eating snacks and whole meals while watching television was a common practice, and the majority did not perceive controlling attitudes by their parents over such habits. In families with low-SES, the low price and great availability of foods of low nutritional value has been reported to lead to higher consumption (McNeal, 2000; Darmon and Drewnowski, 2008). The habit of eating while watching television has been related with greater consumption of non-healthy foods, rich in fat and sugar, favoring greater energy consumption (FitzPatrick *et al.*, 2007; Buijzen *et al.*, 2008; Fiates *et al.*, 2008). A review conducted on parental attitudes towards children's eating habits identified that children with less healthy eating habits indeed had more permissive parents, and that disciplined food consumption practices were associated to healthier eating patterns (Larson and Story, 2009).

Students reported having money to spend on their own, received from parents in exchange for doing chores or as change from grocery shopping. They already shopped independently, and usually bought low-cost food products with their money, more specifically sweets, candies, gum, chocolate, lollipops and bags of salty snacks. Purchase of snack foods by children has been related to television viewing (Olivares *et al.*, 2003; Özgen, 2003; Mazur *et al.*, 2008; Parvanta *et al.*, 2010; Kobayashi, 2011). Children in general do not have a habit of spending their own money with fruits and vegetables, they usually buy packaged "treats" instead (Wind *et al.*, 2005), but the substitution of healthier for unhealthy food has been related to available money and children's purchases of unhealthy snack food items have been positively related to family SES (Epstein *et al.*, 2006).

Some methodological issues need to be considered when interpreting the findings presented in this study. The focus groups involved children from only one school, therefore, results are necessarily of a local nature and findings may differ from those of other regions or countries. Certainly, there is much more to be studied about how the issues raised in this paper affect Brazilian children. Another potential limitation is that students were conveniently selected, and as volunteers they may have been more likely to have an interest in matters related to nutrition, or could have misrepresented their eating behaviours to be more socially desirable than they actually were.

Conclusion

Students reported frequent consumption and acquisition of snack foods, as well as watching television frequently, while not perceiving much parental interference over these habits. Television watching was a regular activity for the children and their families, associated with snacking or having meals. Even though a causal relationship cannot be established, we identified a situation where eating habits and consumer behaviour of a group of children was possibly under a great deal of influence from their television viewing habits. This population could benefit from strategies directed towards the adoption of healthier habits, such as educative actions aimed at raising awareness among parents about the undesirable effects of television over their children's habits. Finally, more rigorous regulation and inspection of television advertising in Brazil is an urgent matter and would certainly help improve the situation reported here.

References

- Barr-Anderson, D.J., Larson, N.I., Nelson, M.C., Neumark-Sztainer, D. and Story, M. (2009), "Does television viewing predict dietary intake five years later in high school students and young adults?", *International Journal of Behavioral Nutrition and Physical Activity*, Vol. 6 No. 7, pp. 1-8.
- Bauer, M.W. and Gaskell, G. (2002), *Pesquisa qualitativa com texto, imagem e som*, Editora Vozes, Petrópolis.
- Bere, E. and Klepp, K. (2005), "Changes in accessibility and preferences predict children's future fruit and vegetable intake", *International Journal of Behavioral Nutrition and Physical Activity*, Vol. 2 No. 15, pp. 1-8.
- Brazil (2009), "Dispõe sobre o atendimento da alimentação escolar aos alunos da educação básica no Programa Nacional de Alimentação Escolar – PNAE", Resolução CD/FNDE nº 38, de 16 de julho de 2009, Diário Oficial da União, Brasília.
- Brazilian Federal Bureau of Geography and Statistics (2000), "Pesquisa nacional por amostragem de domicílio", available at: www.ibge.gov.br/home/estatistica/populacao/trabalhoerendimento/pnad2009/default.shtm (accessed 12 August 2011).
- Brazilian Federal Bureau of Geography and Statistics (2004), *Pesquisa de orçamentos familiares – POF 2002-2003, análise de disponibilidade domiciliar de alimentos e do estado nutricional no Brasil*, IBGE, Rio de Janeiro.
- Buijzen, M., Schuurman, J. and Bomhof, E. (2008), "Associations between children's television advertising exposure and their food consumption patterns: a household diary-survey study", *Appetite*, Vol. 50 Nos 2/3, pp. 231-239.
- Cairns, G. and Hastings, A.K. (2009), *The Extent, Nature and Effects of Food Promotion to Children: A Review of the Evidence to December 2008*, World Health Organization, Geneva.
- Darmon, N. and Drewnowski, A. (2008), "Does social class predict diet quality?", *American Journal of Clinical Nutrition*, Vol. 87 No. 5, pp. 1107-1117.
- Dave, J.M., Evans, A.E., Pfeiffer, K.A., Watkins, K.W. and Saunders, R.P. (2010), "Correlates of availability and accessibility of fruits and vegetables in homes of low-income Hispanic families", *Health Education Research*, Vol. 25 No. 1, pp. 97-108.
- Dennison, B.A. and Edmunds, L.S. (2008), "The role of television in childhood obesity", *Progress in Pediatric Cardiology*, Vol. 25 No. 2, pp. 191-197.

- Dorey, E. and McCool, J. (2009), "The role of the media in influencing children's nutritional perceptions", *Qualitative Health Research*, Vol. 9 No. 5, pp. 645-654.
- Dotson, M.J. and Hyatt, E.M. (2005), "Major influence factors in children's consumer socialization", *Journal of Consumer Marketing*, Vol. 22 No. 1, pp. 35-42.
- Epstein, L.H., Dearing, K.K., Handley, E.A., Roemmich, J.N. and Paluch, R.A. (2006), "Relationship of mother and child food purchases as a function of price: a pilot study", *Appetite*, Vol. 4 No. 1, pp. 115-118.
- Fiates, G.M.R., Amboni, R.D.M.C. and Teixeira, E. (2008), "Television use and food choice of children: qualitative approach", *Appetite*, Vol. 50 No. 1, pp. 12-18.
- FitzPatrick, E., Edmunds, L.S. and Dennison, B.A. (2007), "Positive effects of family dinner are undone by television viewing", *The Journal of the American Dietetic Association*, Vol. 107 No. 4, pp. 666-671.
- Hastings, G., McDermott, L., Angus, K., Stead, M. and Thomson, S. (2006), *The Extent, Nature and Effects of Food Promotion to Children: A Review of the Evidence*, World Health Organization, Geneva.
- Instituto MídiaTiva (2006), "Brasileiro vê TV mais de 5 horas por dia", available at: www.midiativa.tv/blog/?p=650 (accessed 12 August 2011).
- Kobayashi, F. (2011), "Japanese high school students' television viewing and fast food consumption", *Nutrition & Food Science*, Vol. 41 No. 4, pp. 242-248.
- Krueger, R.A. and Casey, M.A. (2000), *Focus Groups: A Practical Guide for Applied Research*, Sage, Thousand Oaks, CA.
- Larson, N. and Story, M. (2009), "A review of environmental influences on food choice", *Annals of Behavioral Medicine*, Vol. 18, Suppl. 1, pp. S56-S73.
- McNeal, J.U. (1998), "Tapping the three kid's markets", *American Demographic*, Vol. 20, pp. 37-41.
- McNeal, J.U. (2000), *Children as Consumer of Commercial and Social Products*, Pan American Health Organization, Washington, DC.
- Mazur, A., Telega, G., Kotowicz, A., Małek, H., Jarochowicz, S., Gierczak, B., Mazurkiewicz, M., Pop, T., Zajkiewicz, K., Dobrucki, M. and Mazur, D. (2008), "Impact of food advertising on food purchases by students in primary and secondary school in south-eastern Poland", *Public Health Nutrition*, Vol. 11 No. 9, pp. 978-981.
- Ministry of Labor (2002), "Classificação Brasileira de ocupações", available at: www.mtecbo.gov.br/cbosite/pages/informacoesGerais.jsf (accessed 12 August 2011).
- Monteiro, R., Coutinho, J. and Recine, E. (2008), *Monitoração de propagandas de alimentos visando à prática de alimentação saudável*, Universidade de Brasília, Brasília.
- Olivares, S., Yáñez, R. and Diaz, N. (2003), "Publicidad de alimentos y conductas alimentarias en escolares de 5° a 8° básico", *Revista Chilena de Nutrición*, Vol. 30 No. 1, pp. 36-42.
- Özgen, O. (2003), "An analysis of child consumers in Turkey", *International Journal of Consumer Studies*, Vol. 27 No. 5, pp. 366-380.
- Parvanta, S.A., Brown, J.D., Du, S., Zimmer, C.R., Zhao, X. and Zhai, F. (2010), "Television use and snacking behaviors among children and adolescents in China", *Journal of Adolescent Health*, Vol. 46 No. 4, pp. 339-345.
- Radnitz, C., Byrne, S., Goldman, R., Sparks, M., Gantshar, M. and Tung, K. (2009), "Food cues in children's television programs", *Appetite*, Vol. 52 No. 1, pp. 230-233.

Salmon, J., Timperio, A., Telford, A., Carver, A. and Crawford, D. (2005), "Association of family environment with children's television viewing and with low level of physical activity", *Obesity Research*, Vol. 13 No. 11, pp. 1939-1951.

Warren, E., Parry, O., Lynch, R. and Murphy, S. (2008), "If I don't like it then I can choose what I want: Welsh school children's accounts of preference for and control over food choice", *Health Promotion International*, Vol. 23 No. 2, pp. 144-151.

Wind, M., Bobelijn, K., Bourdeaudhij, I., Klepp, K. and Brug, J. (2005), "A qualitative exploration of determinants of fruit and vegetable intake among 10- and 11-year-old schoolchildren in the low countries", *Annals of Nutrition and Metabolism*, Vol. 49 No. 4, pp. 228-235.

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