

ORIGINAL RESEARCH

Content Analysis of Food and Beverages Advertisements Targeting Children and Adults on Television in Tamil Nadu, India

¹Dr. Palaniappan V, ¹Dr. Usha D, ¹Dr. Karthiyayini L, ^{*1}Dr. Darshan Manoj S

¹Assistant Professor, Department of Community Medicine, Coimbatore Medical College, Coimbatore, Tamil Nadu, India.

Corresponding Author

Dr. Darshan Manoj S

Assistant Professor, Department of Community Medicine, Coimbatore Medical College, Coimbatore, Tamil Nadu, India

Received: 12 December, 2022

Accepted: 19 January, 2023

ABSTRACT

Background: The marketing landscape has witnessed a substantial surge in the promotion of food and beverages, especially those targeting children and adults, on television. The present study was conducted with the objectives of content analysis of food and beverages advertisements on television in Tamil Nadu, India. **Methods:** A cross-sectional observational study was conducted to analyze the content of food and beverages advertisements targeting children and adults on popular Tamil television channels in Tamil Nadu, India. Data collection took place over a five-day period, from Monday, May 1, 2023, to Friday, May 5, 2023. **Result:** Fine bakery wares are highest watched advertisements, and solid based soya bean products are the least watched advertisements. Out of 648 advertisements, only 136 (21%) were found to be healthy advertisements, and 512 (79%) were considered as unhealthy. **Conclusion:** Our study underscores the prevalent and impactful role of food and beverages advertisements on Tamil television channels in shaping dietary preferences and choices among children and adults.

Key words: Advertisements, television, content analysis, food and beverages.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution - Non Commercial - Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

INTRODUCTION

In recent years, the marketing landscape has witnessed a substantial surge in the promotion of food and beverages, especially those targeting children and adults, on television.^[1] With television serving as a pervasive medium of communication and entertainment, it has become a potent platform for advertisers to disseminate their messages to diverse demographic segments.^[2] This trend is particularly pronounced in the Indian context, where television holds a central position in the daily lives of millions of households. The present study embarks on a comprehensive exploration of the content and strategies employed in food and beverages advertisements directed towards children and adults in Tamil Nadu, India.

Childhood obesity and associated health concerns have reached alarming levels globally. As per the World Health Organization (WHO), obesity rates among children have escalated substantially over the past few decades, raising considerable public health apprehensions.^[1] The role of advertising, especially in the context of high-calorie and nutrient-poor foods,

has been under scrutiny for its potential influence on dietary preferences and habits among children. Moreover, the impact of these advertisements extends beyond children, as adults also constitute a substantial target audience for such promotions.^[3] Consequently, an investigation into the content, themes, and persuasive techniques employed in these advertisements becomes imperative to gain insights into the potential implications for public health and well-being.^[4]

Tamil Nadu, a southern state of India, is culturally diverse and boasts a rich culinary heritage. The state's strong affinity towards traditional foods, along with its increasing exposure to global culinary trends, creates a unique environment for studying food and beverages advertising practices. This study focuses on examining the televised advertisements for their depiction of food products, nutritional quality, use of persuasive appeals, and overall messaging strategies. By delving into these aspects, the research aims to shed light on the extent to which these advertisements contribute to shaping dietary choices, preferences, and perceptions among children and adults in Tamil Nadu.

Theoretical frameworks drawn from communication studies, psychology, and public health serve as the underpinning for this research.^[5] Cultivation theory provides insights into the potential long-term effects of repeated exposure to specific content, while social cognitive theory aids in understanding the cognitive processes involved in media influence. Additionally, the Health Belief Model contributes to exploring how these advertisements might impact viewers' health-related attitudes and behaviors.^[6] By synthesizing these frameworks, the study seeks to offer a comprehensive understanding of the multifaceted dynamics between food and beverage advertising, audience reception, and its potential repercussions on public health outcomes.

Therefore, the present study was conducted with the objectives of content analysis of food and beverages advertisements targeting children and adults on television in Tamil Nadu, India. This study contributes to the existing body of literature by providing nuanced insights into the content and strategies employed in food and beverage advertisements in the context of Tamil Nadu, India. The findings are expected to shed light on the potential impact of these advertisements on viewers' attitudes, perceptions, and behaviors regarding food consumption. Moreover, the study holds implications for policymakers, health practitioners, and educators, as it aims to inform evidence-based interventions and campaigns to promote healthier dietary choices among children and adults.

MATERIALS AND METHODS

The materials and methods employed in this study facilitated a systematic and comprehensive analysis of food and beverages advertisements on popular Tamil television channels. By utilizing a cross-sectional observational approach, convenient sampling, and a rigorous categorization process, the study aimed to contribute valuable insights into the nutritional content and messaging strategies of these advertisements.

Study Design: A cross-sectional observational study was conducted to analyze the content of food and beverages advertisements targeting children and adults on popular Tamil television channels in Tamil Nadu, India. The study aimed to comprehensively examine the characteristics of these advertisements, including their nutritional profile and messaging strategies.

Data Collection: Data collection took place over a five-day period, from Monday, May 1, 2023, to Friday, May 5, 2023. The study specifically focused on the time slots from 7:30 AM to 9:30 AM and 5:00 PM to 6:20 PM, encompassing peak viewing hours for the target audience. To ensure comprehensive coverage, a team of five investigators participated in data collection. Each investigator was responsible for recording advertisements during the specified time slots on each day.

The study utilized a convenient sampling technique, wherein the investigators captured food and beverages advertisements from popular Tamil channels, including Star Vijay, Sun TV, Zee Tamil, Star Sports Tamil, and Adithya TV. In total, 648 advertisements were recorded during a cumulative time of 20 hours, resulting in an average of 125 ads per investigator.

Categorization of Advertisements: The collected advertisements were categorized based on the 'Nutrient Profile Model' developed by the World Health Organization (WHO) for the South-East Asia Region.^[7] This model provides a framework for assessing the nutritional quality of food and beverage products. To determine the nutritional content of the advertised products, the information provided in the nutrient declaration panel was cross-checked against the cut-off values established by the Food Safety and Standards Authority of India (FSSAI) in 2015.^[8]

Advertisements that exceeded the recommended limits for fat, total calories, added sugar, and sodium, as outlined by the FSSAI, were classified as "unhealthy" ads. Conversely, advertisements that met the specified criteria were categorized as "healthy" ads.^[8]

The frequency of food and beverages advertisements was analyzed on a per-hour basis for the designated time slots. The data were compiled and presented using graphs and tables to facilitate a clear and concise representation of the findings. The categorization of advertisements as healthy or unhealthy was also depicted visually to provide insights into the prevalence of different types of advertisements.

Ethical Considerations: Ethical approval for the study was obtained from the Institutional Ethics Committee prior to commencing data collection. All data collected were anonymized and handled in accordance with ethical guidelines to ensure the privacy and confidentiality of the advertisements and the individuals involved in their creation.

Statistical Analysis: Descriptive statistics were employed to summarize the characteristics of the collected advertisements. The frequency distribution of healthy and unhealthy ads was calculated, along with the prevalence of specific nutritional components exceeding recommended limits. Results were interpreted in the context of relevant theoretical frameworks, including communication studies and public health models, to provide a comprehensive understanding of the potential implications of the observed trends in food and beverages advertisements targeting children and adults in Tamil Nadu.

RESULT

A total of 648 food advertisements were appeared during a sample period in television channels. Total duration of these advertisements was calculated 20 hours for a given period. Advertisement about fine bakery wares like biscuits, cookies were telecasted

highest number of times followed by the coffee, tea, substitutes etc.

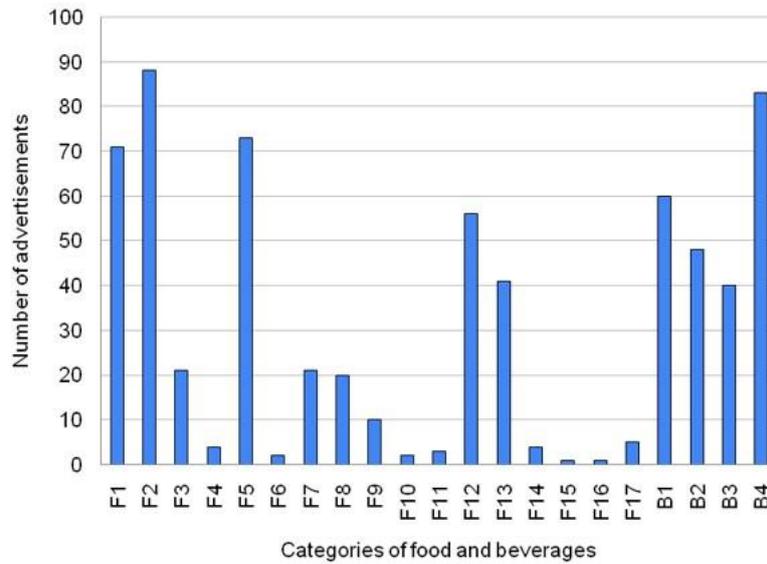


Figure 1: Graphical representation of total number of all categories of food and beverages

F1-confectionary, F2- fine bakery wares, F3- breads and buns, F4-cereals, F5-ready to eat snacks, F6-fresh frozen non-veg foods, F7-processed non-veg foods, F8- frozen dairy based products, F9-cursed dairy based desserts, F10- cheese and analogues, F11- composite foods (prepared foods) F12-fats, oils, and fat emulsion, F13-pasta and noodles and like products, F14-fresh and frozen foods and vegetables and legumes, F15-processed fruits and vegetables, F16-solid form soybean products, F17- sauces, dips, dressings, B1- juices 100% concentration, B2-milk and dairy based drinks, B3-water based flavoured drink, B4- coffee tea, coffee substitutes.

Figure 1 shows that F2: fine bakery wares are highest watched advertisements, and F15: processed food, and vegetables, F16: solid based soya bean products are less watched advertisements. The range of population intake nutrient goals according to WHO nutrient profile [7] is given in Figure 2.

Dietary factor	Goal (% of total energy, unless otherwise stated)
Total fat	15–30%
Saturated fatty acids	<10%
Polyunsaturated fatty acids (PUFAs)	6–10%
n-6 Polyunsaturated fatty acids (PUFAs)	5–8%
n-3 Polyunsaturated fatty acids (PUFAs)	1–2%
Trans-fatty acids	<1%
Monounsaturated fatty acids (MUFAs)	By difference ⁱ
Total carbohydrate	55–75% ⁱⁱ
Free sugars ⁱⁱⁱ	<10%
Protein	10–15% ^{iv}
Cholesterol	<300 mg per day
Sodium chloride (sodium) ^v	<5 g per day (<2 g per day)
Fruits and vegetables	≥400 g per day
Total dietary fibre	From foods ^{vi}
Non-starch polysaccharides (NSP)	From foods ^{vi}

Figure 2: Ranges of population intake goals

The present study considered only the energy, sodium, saturated fat, carbohydrates, total fats. We found that the total number of advertisements exceeding the cutoff value for energy to be 369, sodium to be 83, saturated fat to be 103, carbohydrate to be 300, and total fats to be 348. The data are shown in Table 1.

Table 1. Advertisements exceeding cut off value (n = 648)

Nutrient	Number of advertisements	Percentage*
Energy	369	56.9
Total fats	348	53.7
Carbohydrates	300	46.3
Saturated fat	103	16.4
Sodium	83	12.8

*Not mutually exclusive

Out of 648 advertisements, only 136 (21%) were found to be healthy advertisements, and 512 (79%) were considered as unhealthy.

DISCUSSION

The present study embarked on a comprehensive examination of food and beverages advertisements targeting children and adults on popular Tamil television channels in Tamil Nadu, India. Through a meticulous content analysis, we aimed to unravel the nutritional profile, prevalence, and messaging strategies inherent in these advertisements. Our findings shed light on the pervasive nature of such advertisements, their predominant content themes, and the nutritional implications they hold for the viewers.

The study's results revealed a substantial presence of food and beverages advertisements on the selected Tamil television channels during the sampled period. A total of 648 advertisements were identified, spanning a cumulative duration of 20 hours. This pervasive occurrence underscores the significant role of television as a platform for food and beverages promotion in Tamil Nadu. The frequency and duration of these advertisements raise concerns about the potential impact they may have on viewers' dietary preferences, choices, and behaviors.

Our analysis of the content themes within the advertisements unveiled noteworthy patterns. Fine bakery wares, including biscuits and cookies, emerged as the most frequently advertised category, followed closely by coffee, tea, and their substitutes. These findings align with the evolving food preferences and consumption habits in Tamil Nadu, indicating a growing affinity towards convenient and snackable options. Ranganath TS et al.^[3] in their study conducted in 2019 among top 5 Indian TV channels found that the food types f5 were broadcasted more than the other food types.

The core of our study lay in the nutritional analysis of the advertised products. It is evident that a significant proportion of the advertisements surpassed the cutoff values established for key nutritional components. Of particular concern is the prevalence of advertisements exceeding recommended limits for energy (56.9%), sodium (12.8%), saturated fat (16.4%), carbohydrate (46.3%), and total fats (53.7%). These figures signify a concerning disparity between the advertised products and the recommended nutritional thresholds.

This overrepresentation of advertisements surpassing cutoff values holds implications for public health. High levels of energy, saturated fat, and sodium are known risk factors for various non-communicable diseases, including obesity, hypertension, and cardiovascular ailments. The fact that a substantial portion of the advertisements breach these thresholds highlights the potential role of advertising in shaping unhealthy dietary patterns among viewers.

Our study introduced a binary classification of advertisements into "healthy" and "unhealthy" categories based on their adherence to recommended nutritional values. The results unveiled a stark imbalance, with only 136 advertisements (21%) meeting the criteria for being considered healthy, while the remaining 512 advertisements (79%) were categorized as unhealthy. Ranganath TS et al.^[3] also reported that among the ads watched 31% were considered healthy and 69% were considered unhealthy. This discrepancy underscores the urgent need for critical evaluation and regulation of food and beverages advertisements to ensure that they align with public health goals.

The implications of our findings reverberate across multiple dimensions of public health and policy. The prevalence of unhealthy advertisements holds the potential to exacerbate existing health challenges in Tamil Nadu, such as the rising incidence of obesity and diet-related chronic diseases. Urgent measures are required to address this situation, including the development and enforcement of robust advertising regulations that align with recommended nutritional standards. Policy interventions must focus on restricting the promotion of products that surpass established cutoff values for critical nutrients, thereby curbing the potential negative impact on viewers' health.^[9]

Beyond regulatory measures, educational initiatives and media literacy campaigns can play a pivotal role in equipping viewers, particularly children, with the skills to critically evaluate and respond to the persuasive tactics employed in advertisements. Promoting media literacy can empower individuals to make informed dietary choices and resist the influence

of advertisements that promote nutritionally poor products.^[10]

Limitations: As with any research, our study has its limitations. The cross-sectional nature of the study design provides a snapshot of the advertisements within the sampled period, potentially missing seasonal variations, and long-term trends. Moreover, the study focused solely on television advertisements, overlooking the influence of other media platforms and promotional channels.

Future research could explore the effectiveness of potential interventions, such as incorporating healthier alternatives into advertisements or implementing labelling systems that provide viewers with clear information about the nutritional content of advertised products. The dominance of unhealthy advertisements and their potential implications for public health necessitate a collective effort from stakeholders, including policymakers, advertisers, and health advocates, to foster a healthier media environment.

CONCLUSION

Conclusion:

Our study underscores the prevalent and impactful role of food and beverages advertisements on Tamil television channels in shaping dietary preferences and choices among children and adults. By addressing the concerns raised by our study, we can pave the way toward promoting healthier eating habits and ultimately contribute to improved public health outcomes in Tamil Nadu, India.

Recommendations

- The Food Safety and Standards Authority of India (FSSAI) should develop a comprehensive nutrient profile model encompassing a wide array of food and beverage categories, specifically tailored to the dietary preferences and habits of the Indian population.
- Both non-governmental organizations (NGOs) and governmental bodies are urged to harness the power of social marketing initiatives to promote and cultivate healthy eating habits among the populace.
- A prospective recommendation for government consideration involves the potential implementation of a permanent prohibition on the advertisement of low-nutritive quality products through television channels.

- In the context of India, the adoption of front-of-packaging warning labels assumes paramount significance within a comprehensive strategy aimed at fostering healthier lifestyles.

REFERENCES

1. World Health Organization. Childhood overweight and obesity. World Health Organization; 2020. Available from: <https://www.who.int/dietphysicalactivity/childhood/en/>. (Accessed on August 14, 2023)
2. Bandura A. Social cognitive theory: An agentic perspective. *Annual Review of Psychology*. 2001;52:1-26.
3. Ranganath T S, Sanadi S L, Vishwanath. Food and Beverage advertisements of popular children's television channels in India: frequency and nutritive quality. 2019;4(4):19-28.
4. Rosenstock IM. Historical origins of the health belief model. *Health Education Monographs*. 1974;2(4):328-335.
5. Singh AS, Mulder C, Twisk JW, van Mechelen W, Chinapaw MJ. Tracking of childhood overweight into adulthood: A systematic review of the literature. *Obesity Reviews*. 2008;9(5):474-488.
6. Sutherland LA, Mackenzie T, Purvis LA, Dalton M. Prevalence of food and beverage brands in movies: 1996-2005. *Pediatrics*. 2010 Mar;125(3):468-74.
7. Pandav C, Smith Taillie L, Miles DR, Hollingsworth BA, Popkin BM. The WHO South-East Asia Region Nutrient Profile Model Is Quite Appropriate for India: An Exploration of 31,516 Food Products. *Nutrients*. 2021 Aug 15;13(8):2799.
8. Verma M, Aggarwal R, Nath B. Exploring the influence of food labels and advertisements on eating habits of children: a cross-sectional study from Punjab, India. *BMC Public Health* 2023;23:311.
9. Prathapan S, Wijewardena K, Low WY. Content Analysis of Food and Beverages Advertisements Targeting Children and Adults on Television in Sri Lanka. *Asia-Pacific J Public Heal* 2016; 28(1Suppl):86S-92S.
10. Rovirosa A, Gotthelf S, Ferrante D. Food and beverage advertising on children's TV channels in Argentina :Frequency , duration , and nutritional quality. 2017;115(1):28-34.