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## Weekday and weekend food advertising varies on children's television in the USA but persuasive techniques and unhealthy items still dominate



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#### ABSTRACT

*Objective:* In 2006, food industry self-regulatory efforts aimed to balance the mix of food advertisements to limit children's exposure to unhealthy food products. An update to these efforts proposed to eliminate all unhealthy advertisements during peak child viewing times and implement uniform nutrition criteria by December, 2013. Marketing techniques are not currently addressed in self-regulatory efforts. The food industry's pledge prompted researchers to conduct a content analysis to assess nutritional quality and presence of persuasive marketing techniques in child-directed food and beverage advertisements. *Study design:* Content analysis.

*Methods*: 32 h of children's television programming were recorded in February, 2013. Three independent coders assessed the nutritional content of food and beverage advertisements using the UK Nutrition Profiling System and assessed presence of persuasive techniques (PTs) using a rating form developed for this study.

Results: Overall, 13.75% of advertisements promoted a food or beverage product. Most food advertisements, 54.6%, represented unhealthy products and 95.48% of food advertisements contained at least one PT. The number of PTs was not significantly different for healthy (M = 4.98, SD = 2.07) and unhealthy food advertisements (M = 4.66, SD = 1.82) however food advertisements aimed at children used significantly more PTs (M = 5.5, SD = 1.43) than those targeting adults (M = 1.52, SD = 1.54), t (153) = 11.738, P < 0.0001. Saturday morning children's programming showed significantly fewer food advertisements compared to weekday morning children's programming.

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Conclusions: While a majority of food-related advertisements represented unhealthy items, advertisements airing during Saturday morning programming featured fewer food advertisements overall and were more frequently for healthier items compared to weekdays. Industry self-regulation may not be effective for reducing overall unhealthy ad exposure but may play a role in reduced exposure on weekends. Despite policy efforts, additional changes are needed to improve ad exposure experienced by children with a focus on addressing the persistent use of persuasive marketing techniques in food advertising intended for children.

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#### Introduction

In the USA about 12.5 million (17%) youth aged 2-19 years are obese.<sup>1</sup> Children who experience excess weight gain at an early age are at an elevated risk for obesity in later childhood and adulthood. Data from the Early Childhood Longitudinal Study found overweight kindergarteners were four times more likely to become obese by the eighth grade compared to children who entered kindergarten at a normal weight.<sup>2</sup> Additionally, about two-thirds of obese children remain obese into adulthood, making childhood obesity a life-long health issue associated with numerous comorbidities including metabolic syndrome and cardiovascular disease.<sup>3–5</sup> Dietary factors including increased consumption of salty, high-sugar, high-fat foods and declines in the consumption of fresh fruits and vegetables among children are important influences on obesity.<sup>6,7</sup> Environmental exposures, including television viewing and the larger food advertising environment, may also be important factors contributing to poor diet and obesity among children.

#### Food advertising environment and persuasive techniques in marketing

Children view an estimated 30 h of television food advertisements each year.<sup>8</sup> In 2009, 48 food and beverage marketers spent \$1.79 billion to advertise products to children ranging from 2 to 17 years old.<sup>9</sup> Food is the second most frequently advertised product during child-viewing times and frequently food advertisements focus on promoting products of low nutritional quality.<sup>10,11</sup> Kelly et al.<sup>12</sup> reported that 32% of food advertisements in the USA consisted of promotions for fast food. Additionally, studies indicate between 67% and 84% of US food advertisements consist of unhealthy foods.<sup>12,13</sup>

Persuasive techniques (PTs) are frequently used to market food to children.<sup>10,12,14,15</sup> Food advertisements often include techniques such as emphasizing fun,<sup>11,16,17</sup> using sound effects, fast moving images, cartoon characters,<sup>11,12,16</sup> giveaways,<sup>12</sup> and special effects to attract the attention of children.<sup>11</sup> PTs are defined as strategies that increase children's brand loyalty, recall of advertisements, purchase requests, preferences and consumption of advertised foods.<sup>18</sup> Marketing techniques used to sell food to children are considered persuasive because children are not able to cognitively discern the selling intent of advertisements until around age eight years and understanding of persuasive intent does not emerge until around 12 years of age or later, making young children vulnerable to these techniques.<sup>19</sup>

There are a variety of components of advertisements that are utilized to sell food to children including emotional appeals, production effects and character endorsements. One study found 82% of food advertisements aimed at children used a fun appeal (associating fun and happiness with a product without referencing the product itself) and 57% of advertisements used an action appeal,<sup>16</sup> 85% of commercials in a similar study also used a fun appeal.<sup>17</sup> Kelly et al.<sup>12</sup> found that across six countries surveyed, 12% of television food advertisements directed towards children contained a persuasive marketing technique such as a competition, giveaway, rebate or voucher; with the presence of such techniques jumping to 34% in US food advertisements.

Previous research has documented that unhealthy advertisements use PTs at a higher rate compared to healthier advertisements. In a study assessing the use of promotional characters and premiums, 75% of unhealthy food advertisements featured at least one persuasive marketing technique compared to only 13% of healthier food advertisements using similar techniques.<sup>12</sup> Furthermore, children appear to be the disproportionate recipients of PTs. Wicks et al.<sup>15</sup> found that food advertisements during programming for children younger than 11 years contained significantly more emotional appeals and production techniques compared to food advertisements during shows for older audiences. These findings suggest that using PTs to market unhealthy food is considered an appropriate method for targeting children.

## The role of food advertising environments on food choice and obesity

Continued assessment of the advertising environment, including excessive exposure to food advertisements featuring unhealthy products and use of PTs, is important given the potential impact it may have on diet quality and obesity. In an experimental setting, Kotler et al.<sup>20</sup> found the use of popular characters in food advertisements influenced self-reported preferences for specific food items and actual food choices among children. Another study found children who viewed programming with food advertisements

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