Commentary

Food Messages in Television Programs for Preschoolers: A Call for Research

Meghan Lynch
University of Toronto

Childhood obesity develops from an indeterminate combination of genetic and environmental factors (Davison & Birch, 2001; Lytle, 2005; Wells & Ritz, 2001). While research has found a genetic component involved in childhood obesity, the increase in Canada’s childhood obesity rate over the past 30 years—which has more than doubled among girls and boys—cannot be explained solely by genetic factors (Thomas, 2006). Rather, this increasing trend has been attributed to environmental and behavioural changes, and, as such, these are the areas that can be addressed productively in childhood obesity interventions (Davison & Birch, 2001; Thomas, 2006).

One such major contributing factor is the child’s “nutritional behaviours,” the term used in this commentary to describe behaviour related to food and eating, such as food preferences, food choices, and meal-time behaviours (Brown & Ogden, 2004; Schwartz & Puhl, 2003; Wells & Ritz, 2001). Poor nutritional behaviours in childhood have been found to contribute to chronic health problems in adulthood (Craigie, Lake, Kelly, Adamson, & Mathers, 2011). One survey found 70% of Canadian children aged 4 to 8 years consume fewer fruits and vegetables than recommended by Canada’s Food Guide (Garriguet, 2007). In addition to low fruit and vegetable consumption, Canadian children have diets high in candy, chocolate bars, and soft drinks (Garriguet, 2007; Taylor, Evers, & McKenna, 2005). Such nutritional behaviours should be of grave concern, as healthy eating has been linked not only with healthy weight status, but also with improved cognitive function, physical performance levels, and psychosocial health (O’Dea, 2003). Despite the many benefits of healthy nutritional behaviours, understanding why some children develop healthy nutritional behaviours while others do not remains insufficiently researched, especially in Canada (Paquette, 2005), and this phenomenon clearly cannot be attributed solely to genetic predisposition.

For children to develop healthy nutritional behaviours that have the best chances of being maintained over the long term, attitudes and habits must be established during early childhood (Veugelers & Fitzgerald, 2005; Wardle, Guthrie, Sanderson, Birch, & Plomin, 2001; Wells & Ritz, 2001). Regarding the early childhood period—under the
Age of six years—research has emphasized the importance of social influences in the development and maintenance of nutritional behaviours, showing that children’s dietary habits are shaped largely by their social environments (Aldridge, Dovey, & Halford, 2009; Birch & Davison, 2001; Cashdan, 1994; Greene, 2009; Liem & Mennella, 2002; Patrick & Nicklas, 2005; Shonkoff & Phillips, 2000; Skinner, Carruth, Bounds, & Ziegler, 2002). For example, children have been found to prefer foods that are given to them as a reward or are presented as being preferred by their peers and heroes; repeatedly exposing children to new foods can also overcome their initial rejection (Birch & Davison, 2001; Taylor, Evers, & McKenna, 2005).

As important as these studies are, their focus is exclusively on children’s family members, neglecting the importance of extra-familial influences in shaping children’s developing nutritional behaviours. One such influence that is proving to be increasingly prevalent in young children’s lives is television (Kennedy, 2000; Livingstone, 2006), and researching how children interpret televised messages should be of greater interest to researchers (Elliott, 2009). The capacity of children to learn behaviours and attitudes from television is an essential component of one of the most popular theories used in child development, social cognitive theory (SCT), which has shown that viewers learn and model behaviours based on media portrayals (Bandura, 2004; Greenberg, Rosaen, Worrell, Salmon, & Volkman, 2009). A large body of literature, including a range of experiments, surveys, observations, and case studies, has found that television portrayals, especially, have a direct influence on young children’s behaviours (Kennedy, 2000; Livingstone, 2006; Morgan & Signorielli, 1990). For example, preschoolers who watch a lot of television are at an increased risk of exhibiting aggressive behaviour (Manganello & Taylor, 2009), and children even as young as one year old have been found to imitate simple behaviours displayed on television (Wilson, 2008). Moreover, television programs have been found to promote unsafe behaviours, with one study revealing that nearly half of children’s programming featured at least one instance of imitable, unsafe behaviours without consequences (Winston, Woolf, Jordan, & Bhatia, 2000). In view of such research, the Canadian Paediatric Society (2003) and American Academy of Pediatrics (2001) have issued urgings to parents to eliminate preschoolers’ television viewing, or at least severely limit it to one hour per day. The most recent statistics show, however, that this advice mostly goes unheeded, with Canadian preschoolers still tuning in to a staggering 14.1 hours per week of television (Statistics Canada, 2006).

Thus a consensus has been growing among researchers that a significant degree of children’s poor nutritional behaviours can be attributed to the marketing of unhealthy foods and behaviours in the media (Byrd-Bredbenner, 2003; Culp, Bell, & Cassady, 2010; Livingstone, 2005). In particular, two types of research focus are evident in the literature covering the role television plays in influencing children’s nutritional behaviours: food messages communicated through television commercials and those embedded in television programs. (In the present article, “food messages” refers to both food and beverage messages.)

Preponderantly the literature on televised food messages has examined commercials aimed at children. Reviews of the empirical research examining television commercials as an influence on children’s dietary behaviours have concluded that
commercials affect children's requests, purchases, and consumption of unhealthy foods (Kennedy, 2000; Livingstone, 2005). Yet, in spite of these findings, recent research has shown that advertisements for unhealthy foods continue (Bell, Cassady, Culp, & Alcalay, 2009). Additionally, advertisements for unhealthy foods are not being countered with beneficial nutrition messages in the form of public service announcements (PSAs) (Bell et al., 2009), though questions do persist about the effectiveness of PSAs in altering children's behaviours (Kennedy, 2000; Winston, Woolf, Jordan, & Bhatia, 2000). That said, both television commercials and PSAs are typically only 30 seconds in length, whereas children are exposed to the behaviours and attitudes of television characters in programs for much longer periods (Culp, Bell, & Cassady, 2010). As children begin developing attachments to favourite characters during the preschool years (Wilson, 2008), nutritional behaviours modelled by likable television characters, as opposed to unknown actors in commercials, may have greater influence (Greenberg et al., 2009). While much has been learned from examining advertisements, there is at least equal need to focus on food messages embedded in television programs for preschoolers (Byrd-Bredbenner, 2003; Greenberg et al., 2009).

Television programs and films supply an influential cast of characters that model nutritional behaviours for children to observe and mimic (Bell, Berger, Cassady, & Townsend, 2005; Byrd-Bredbenner, 2003; Larson, 1991). Research has revealed that children's television programs feature considerably more unhealthy foods compared with shows targeting youths and adults, that such foods are typically consumed as snacks as opposed to meals, and that less than 10% of such snacks are fruits and vegetables (Greenberg et al., 2009; Story & Faulkner, 1990). These findings are concerning, even alarming, given the impact on children's food preferences of product placements in films (Auty & Lewis, 2004). Greenberg et al. (2009) further identified the potential of television programs to encourage unhealthy nutritional behaviours, finding that TV characters do not promote eating because of hunger or thirst, nor do they show pleasure in eating healthy foods. More recently, Radnitz, Byrne, Goldman, Sparks, Gantshar, & Tung (2009) found that television shows depict unhealthy foods, and characters' valuing of such foods, almost twice as often as nutritious foods. That said, it should be acknowledged that there are also studies reporting findings of positive food messages in television programs. While Larson (1991) reported that snacks make up nearly half of the foods consumed by characters in family sitcoms, he concluded that many programs provide healthy role models, with characters eating apples, drinking fruit juice, enjoying a healthy lunch at school, and eating healthy breakfasts. Similarly, Korr (2008) concluded that the food references in some children's cartoons were of nutritional benefit.

Food advertising in Canada is regulated by Advertising Standards Canada, which administers the Broadcast Code for Advertising to Children. In 2008 the Canadian Children's Food and Beverage Advertising Initiative was created, which involved eight large food-and-beverage and restaurant corporations pledging to advertise only healthy products to children under 12 years of age, and with another eight businesses committing to the elimination of advertising to children (Advertising Standards Canada, 2010). Unfortunately, despite these policies, research into the nutritional content of the food advertised to children in Canada has not drawn favourable conclusions (Adams, Hen-
nessy-Priest, Ingimarsdóttir, Sheeshka, Østbye, & White, 2009; Potvin Kent, Dubois, & Wanless, 2011). Although research into food messages embedded in Canadian children's television is growing, children are still consuming too many unhealthy televised food and beverage advertisements (Potvin Kent, Dubois, & Wanless, 2011), a finding that testifies to the necessity for further research to inform policy regulating advertising to children in Canada. Moreover, still absent from the literature is an examination of the food messages embedded in Canadian television programs for preschoolers: to date all research in this area is based on American programming (Bell et al., 2009; Byrd-Bredbenner, 2003; Greenberg et al., 2009; Korr, 2008; Larson, 1991; Radnitz et al., 2009; Story & Faulkner, 1990). Despite preschoolers’ overexposure to television (Statistics Canada, 2006), there are virtually no investigations of how food messages in programs specifically target preschoolers. Past studies have typically grouped programs in broad age groups—such as targeting children aged 2 to 11 years—or examined only prime-time programs (televised from 8:00 to 11:00 p.m.), as this airtime attracts the largest viewing audience, though it simultaneously excludes preschoolers (Culp, Bell, & Cassady, 2010; Greenberg et al., 2009; Larson, 1991; Manganello & Taylor, 2009; Story & Faulkner, 1990). As a result, the bulk of research on messages in television programs is relevant only for adolescents (Thakkar, Garrison, & Christakis, 2006), with much research concluding that television plays a key role in the socialization of adolescents (Kennedy, 2000; Van den Bulck, Simons, & Van Gorp, 2008; Ward & Friedman, 2006; Winston, Woolf, Jordan, & Bhatia, 2000). Therefore research on television programs specifically aimed at preschoolers is indeed much needed. This stage of development is most influential in establishing long-term behaviours, and this age group is not receiving formal school instruction (Thakkar, Garrison, & Christakis, 2006). Thus there is a need to address this knowledge gap by examining Canadian television programs using methodology similar to studies examining American preschool programs to allow for comparisons. This could involve identifying the occurrence of unhealthy versus healthy food references, whether foods are consumed as meals or snacks, and characteristics of the characters interacting with the foods (Bell et al., 2009; Greenberg et al., 2009; Korr, 2008; Radnitz et al., 2009; Story & Faulkner, 1990). Research could also build on areas unexplored by past studies (addressed below) to generate descriptive findings of the television programs.

There is first a need to describe the context of the program in which the food messages occur, such as the location and preparation involved, as opposed to counting only the frequencies of healthy and unhealthy foods (Korr, 2008; Greenberg et al., 2009; Thakkar, Garrison, & Christakis, 2006; Wilson, 2008). Genre is particularly important: how realistic the program appears is important for children’s learning behaviours (Bandura, 2004). For example, children are more likely to be empathetic if they perceive the program as realistic, as opposed to cartoons; even very young children have been found to remember people’s emotions better than those of puppets or animated characters (Wilson, 2008). Yet past studies involving food messages are limited, in that they typically involve samples of cartoon programs only (Korr, 2008). Also, such studies include only scenes in which food is eaten, and exclude those in which characters use food in a non-eating context, such as the use of noodles for art projects.
or visits to fruit and vegetable markets (Greenberg et al., 2009; Radnitz et al., 2009). According to the concept of visual familiarity—which holds that children show a greater willingness to try new foods that they have been accustomed to seeing in their environment (Aldridge, Dovey, & Halford, 2009)—there is reason to believe that scenes such as these should be included in a study examining food-preference development. Because children’s food preferences can be encouraged not only through repeated taste exposure, but also through children’s merely seeing healthy foods on a regular basis (Story, Neumark-Sztainer, & French, 2002), and because repeated visual exposure to foods can overcome an initial refusal (Cooke, 2007), meaningful data can be provided by determining how frequently foods are presented in any context.

Another area worthy of further study was initially explored by Greenberg et al. (2009), who, as described earlier, examined the motivations and outcomes of TV-program characters’ eating behaviours. This is important, as children are more likely to imitate observed behaviours that are rewarded rather than punished (Bandura, 2004). Thus, it is worthwhile to further examine both the motivations and outcomes preschool-television characters promote as being associated with foods.

Finally, an area not addressed in past studies involves examining gender differences in television programs’ food messages. Research in fields outside nutrition have found that children are more likely to adopt behaviours performed by televised characters with whom they have things in common or whom they aspire to be like (Bandura, 2004), and that children are more likely to share the emotions of a same-sex character (Wilson, 2008). Determining whether male or female characters are more likely to interact with food could add to research on determining how nutritional behaviour differences develop between boys and girls from a young age (Aldridge, Dovey, & Halford, 2009).

In conclusion, by examining food messages in Canadian preschool television programs, research can determine the following: how Canadian preschool programs compare with American programs, the contexts in which foods are presented, the motivations and outcomes associated with food, and the gendered issues (if any) surrounding food. That said, given the various media venues available for marketers, future research must aim to be more inclusive of the various media messages (such as movies, Internet sites, and online games) to enable a fuller understanding of influences on children’s nutritional behaviours (Auty & Lewis, 2004; Harris, Schwartz, & Brownell, 2010; Potvin Kent, Dubois, & Wanless, 2011). Examining the neglected area of food messages in Canadian programming is one step toward this fuller understanding, which will have implications for nutrition research and practice in Canada (and elsewhere). With child obesity and unhealthy eating habits at historically high levels in various Canadian communities, researching the influences on developing nutritional behaviours will better equip those caring for preschoolers to make decisions to better children’s health. The findings of such research will enable policymakers to be better informed to develop appropriate regulations, parents and childcare providers to monitor the programs their children are watching, and researchers to increase understanding of the role television plays in influencing young children’s developing nutritional behaviours.
References


