A mixed-method examination of food marketing directed towards children in Australian supermarkets

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SUMMARY

The purpose of this study was to determine the prevalence of children's food requests, and parents' experiences of food marketing directed towards children, in the supermarket environment. A mixed-method design was used. Firstly, intercept interviews were conducted with parents accompanied by a child/children on exiting supermarkets (sampled from a large regional centre in Australia). Parents were asked about the prevalence and types of food requests by child/children during their supermarket visit and whether they purchased these foods. Secondly, focus groups (n = 13) and telephone interviews (n = 3) were conducted exploring parents' experiences of supermarket shopping with children and the impact of child-directed marketing. Of the 158 intercept survey participants (30% response rate), 73% reported a food request during the supermarket visit. Most requested food items (88%) were unhealthy foods, with chocolate/confectionery being the most common food category requested (40%). Most parents (70%) purchased at least one food item requested during the shopping trip. Qualitative interviews identified four themes associated with food requests and prompts in the supermarket: parents' experience of pester power in the supermarket; prompts for food requests in the supermarket; parental responses to pestering in the supermarket environment, and; strategies to manage pestering and minimize requests for food items. Food requests from children are common during supermarket shopping. Despite the majority of the requests being unhealthy, parents often purchase these foods. Parents reported difficulties dealing with constant requests and expressed desire for environmental changes including confectionery-free checkouts, minimization of child friendly product placement and reducing children’s exposure to food marketing.

Key words: food marketing; food advertising; child; supermarket

INTRODUCTION

The prevalence of childhood overweight and obesity is concerning with the most recent rates in Australia being reported at 23% (Department of Health and Ageing, 2008), with lower socio-economic groups more likely to be overweight or obese (Australian Bureau of Statistics, 2009). Both inactivity and a diet high in energy-dense, low fibre, high fat foods play a role in higher body mass (Johnson et al., 2008) and findings indicate that children are consuming higher than recommended levels of energy from non-core (unhealthy) foods (Bell et al., 2005).

Evidence indicates that food marketing impacts on children’s food preferences, food
requests and food purchases (Cairns et al., 2009). This is supported by parent report, which has identified food marketing as one of the factors that influence children’s food preferences (Campbell et al., 2007; Ip et al., 2007). Food marketing directed towards children is prevalent in a variety of media and tends to promote unhealthy foods (Cairns et al., 2009), including on television (Kelly et al., 2007, 2011b), children’s popular websites (Kelly et al., 2008) and in children’s magazines (Kelly and Chapman, 2007; Jones and Reid, 2010). Further, research into the effects of this marketing have identified that children respond positively to television food advertising and that the more television children watch, the more positive their attitudes and beliefs are about unhealthy foods (Dixon et al., 2007). Further experimental research has shown that exposure to television food advertisements results in increased food intake (Halford et al., 2004), with overweight and obese children shown to have an even higher intake of energy after exposure to television food advertisements (Halford et al., 2008). Similar to television advertising, research has shown higher consumption of advertised foods amongst those children who viewed magazines with food advertising (Jones and Kervin, 2011).

Children requesting food items as a result of food promotion is commonly referred to as ‘pester power’. Importantly, children have been shown to interact with and enjoy food promotion (Cairns et al., 2009). A child’s interaction with a television food advertisement is a strong predictor of food requests when grocery shopping (Arnas, 2006).

In addition, there is growing evidence to suggest that food promotion is highly prevalent in the supermarket environment. This in-store promotion is referred to as point-of-sale marketing, which includes product placement, in-store promotions and product labelling. Research exploring checkout displays in Australian supermarkets found that the majority of foods available at the checkout were unhealthy (Dixon et al., 2006). They suggested that the displays were almost always within reach of children and the content placed in these displays was conducive with children often being the target of the promotion (Dixon et al., 2006). A number of Australian studies have examined food promotion aimed at children on food packaging within supermarkets. Cartoon characters (company-owned) and television/movie characters were the most common promotional tactic used on packaging (Hebden et al., 2011), with other strategies including giveaways and competitions (Chapman et al., 2006). Most of the food products that used promotional techniques were considered to be non-core foods (Chapman et al., 2006; Hebden et al., 2011).

Children are regarded as a vulnerable population due to their cognitive development and limited cognitive strategies to resist marketing techniques (Harris et al., 2009a). Research suggests that even when children develop an understanding of what a television advertisement is, and the intent behind advertising, they may still be susceptible to the advertised message (Livingstone and Helsper, 2006; Harris et al., 2009a). Parents report concern relating to the amount of food promotion to children and describe little confidence in the regulation system to protect children (Morley et al., 2008). However, qualitative research suggests that parents acknowledge that although their children’s food preferences are influenced by other factors, they as parents have ultimate control over their children’s eating (Ip et al., 2007).

Much of the previous research examining the impact of food marketing on children’s subsequent behaviour and consumption has been conducted in experimental, laboratory-based settings with no previous research identified that measured the prevalence of pester power in the supermarket environment. There is no known research that explores parents’ views on what may be influencing children’s food requests in the supermarket environment. However, as pester power involves children’s food requests to parents, parental reports of the extent of children’s food requests can assist in establishing the prevalence of this marketing effect (Kelly et al., 2011a). The current study aimed to establish the prevalence of food requests in the supermarket environment, and to explore the associations of parent and child demographics with both the occurrence of food requests and the behavioural response made by parents. Additional objectives included gaining further insight into parents’ perspectives of shopping with children; the role of food marketing directed towards children on requests for food items and to understand how parents deal with pester power in the supermarket environment.
METHODS

A mixed-method design was used, with the initial component involving quantitative exit interviews with families leaving supermarkets. These interviews aimed to quantify the prevalence of food requests in the supermarket environment. Qualitative focus group and telephone interviews with parents who regularly shop with their children were carried out. This was to allow for a broad group discussion of the issues surrounding pester power from a parents’ perspective. As such, the qualitative component provided in-depth information to help explain the findings of the quantitative phase (Steckler et al., 1992). Triangulation of the results was integrated at the interpretation stage.

Ethics approval was gained from the University of Newcastle Human Research Ethics Committee.

Phase 1: Intercept interviews

Selection of supermarkets

Parents were recruited at nine supermarkets (out of ~22) in greater Newcastle, a large regional centre in New South Wales (NSW), Australia. A comprehensive list of all the supermarkets in the area was compiled from the online White Pages. The market share of the supermarkets in the Australian market was identified (Australian Competition and Consumer Commission, 2008). Supermarkets were randomly selected with recruitment stratified to represent market share. Approval was sought from the shopping centre management and/or supermarket manager to conduct the interviews. Permission was not obtained for five supermarkets.

Selection of parents

Parents or caregivers exiting a supermarket accompanied by at least one child aged 3–16 years were eligible to take part in the study. Parents were approached for a face-to-face interview (5–10 min) as they exited the supermarket. Every second potential participant that left a nominated checkout was approached. If more than one child accompanied the parent, they were instructed to complete the interview based on the child that had the most recent birthday (‘reference child’).

Procedure

Intercept surveys occurred between 9.30–11.30 a.m. and 3.00–5.00 p.m. on weekdays during school term 3 (September 2008 and 2009). Interviewers (six dietetics students) were trained in conducting interviews and undertook data collection.

Intercept surveys

The intercept survey included demographic questions (household income, education level, employment status, age and gender of the reference child, number of children present and postcode). The surveys posed the same questions for all participants with appropriate skip options to ensure only relevant questions were asked. Most questions were closed with options such as yes/no or never, rarely, sometimes and frequently. Open-ended questions were then categorized accordingly. Items explored the concept of pester power in relation to previous behaviour (‘how often does your child request food or drink items?’) and the current supermarket visit (‘did your child/children request a food or drink item during your shopping trip today?’). If an item was requested, it was determined whether the item was purchased and parent’s perceived reason for the request. The actual requested item/s were recorded and why the item may not have been purchased (e.g. unhealthiness or cost). Parent’s perception of the healthiness of the requested item was identified as well as possible other factors that may have influenced the decision to purchase or not. Food and beverage items requested during the supermarket visit were coded into 18 specific food categories using a previously developed tool (Kelly et al., 2007). This tool divides foods into two broad categories: healthy/core foods and unhealthy/non-core foods developed on levels of salt, sugar, fat and dietary fibre and is based on the Australian Guide to Healthy Eating (Department of Health and Ageing, 1998). For brevity, both food and beverages are referred to throughout the study as ‘food’ requests or items.

Data analysis

Data were analysed using SPSS version 20.0 for Mac (SPSS, Inc., Chicago, IL, USA). t-test, ANOVA and Pearson chi-square analyses were used to assess the impact of children’s sex and
Phase 2: Focus groups and telephone interviews

Recruitment and data collection

Parents were recruited via schools and workplaces. Two public primary schools in Newcastle, NSW were purposively sampled, to recruit a range of participants, with one school each from a higher and lower socioeconomic area. An information flyer about the focus groups was included in schools’ newsletters, prompting potential participants to contact the researchers if they were interested in taking part. Recruitment at one school did not result in sufficient interest to hold a focus group, hence data were collected through telephone interviews (n = 3). Previous research indicates that it may be more difficult to recruit participants from lower socioeconomic populations, which may have played a role in the low parental involvement in the focus group from this school (Gross et al., 2005). Staff members at the University of Newcastle who were parents were also invited to participate in a focus group discussion. Prior written informed consent was obtained.

Two focus groups and three telephone interviews were conducted. All parents (n = 16) who participated in the discussions were female and were regularly accompanied by their children (one or more child aged 3–16 years) when grocery shopping. Parents were offered a small gift for participating. Focus group discussions lasted 40–60 min and the telephone interviews 15–25 min. All interviews were facilitated by one member of the research team (S.C.) with the focus groups scribed by a second researcher (E.J.).

Interview schedule

The interview schedule for both focus groups and telephone interviews explored the following:

(i) Parents’ experience of grocery shopping with their children and the phenomenon of pester power.
(ii) What prompts a request for a food item when in the supermarket?
(iii) What it is like dealing with requests for food from children in the supermarket environment?
(iv) Whether parents have concerns about food promotion directed towards children and whether they feel anything can be done about it?
(v) Strategies parents might find helpful when shopping with children to minimize pester power.

Analysis

Interviews were audio-taped and transcribed verbatim. Data were analysed using a qualitative content analysis approach to uncover themes and concepts. Themes that emerged from parents’ perception of pester power, self-efficacy, stress and other important substantive issues were inductively derived through the constant-comparative method (Maykut and Morehouse, 1994). Transcripts were coded by one member of the research team (S.C.). One focus group transcript was cross-checked by a second member of the team (E.J.). Through meetings and discussions, members of the research team substantiated the thematic analysis until themes were agreed upon (researcher triangulation).

RESULTS

Intercept interviews

Of the 530 potentially eligible participants approached, 159 agreed to participate (30%). One participant was excluded after identifying that their child did not meet the inclusion criteria for age. Most parents (98%) identified English as the main language spoken at home. Of reference children, 54% were male and the mean age was 7.1 years (SD = 3.1). The mean number of children accompanying the parent was 1.6 (SD = 0.8). Demographic details can be found in Table 1.

Most parents reported that their child/children ‘frequently’ requested food items (69%), followed by ‘sometimes’ (n = 23; 15%), ‘rarely’ (n = 15; 10%) and ‘never’ (n = 11; 7%). Overall, 73% of parents reported that their child requested at least one food item during the current supermarket visit. The main reasons parents identified as why the child requested the item were packaging (n = 30; 23% of 133 reasons provided) and a ‘desire’ (n = 27, 20%) for the food/drink product, such as liking it, wanting it or being familiar with it. Other
reasons identified included the item being placed in checkout displays (n = 16; 12%) and recall of the product from a television advertisement (n = 13; 10%).

A total of 145 different food items were requested, most commonly chocolate/confec-tionery (40%), followed by cakes and biscuits (12%). Most requested food items (88%) were non-core foods. Of parents whose child/children has requested a food item, 81 (70%) decided to purchase at least one of the items requested. There was no association between the child’s gender and requests for a food item, nor whether the requested item was purchased.

Household income had no relationship with whether the child requested a food item (χ² (2, N = 129) = 2.289; p = 0.318. However, family income was associated with whether the parent chose to purchase the item (χ² (2, N = 98) = 5.612; p = 0.060, with a non-significant trend towards the low-income group being more likely to purchase the requested item than families from higher income levels.

Parents who chose not to purchase the requested item (n = 34) most often cited unhealthiness (n = 15, 41%) as the reason. Few parents reported that cost was a factor in deciding not to purchase requested items (n = 6, 16%). Other reasons (43%) included ‘already had the food item at home’, behaviour of the child and the importance of ‘needing to say no’. For those parents who did purchase the product for their child, the most cited reason was as a ‘treat or reward’ (n = 19, 39%), followed by to ‘pacify or bribe’ the child (n = 12; 25%).

Children’s age was not associated with parent’s perceived frequency of food requests (F = 1.159; p = 0.328) nor with the number who requested a food item during the current trip (7.16 vs. 7.10; t = 0.120; p = 0.904). However, parents were less likely to purchase a requested item for younger children (6.24 vs. 7.46; t = −1.999; p < 0.05).

There was no relationship between perceived healthiness of the food item and whether or not the requested item was purchased (χ² (1, N = 109) = 282 (p = 0.596).

Focus groups/telephone interviews

The qualitative discussions identified four themes: parents’ experience of pester power in the supermarket; prompts for food requests in the supermarket; parental responses to pestering in the supermarket environment, and; strategies to manage pestering and minimize requests for food items. The following section describes each theme and provides sample quotes in italics.

Parents’ experience of pester power in the supermarket

There was a range of responses regarding the frequency of children’s food requests in the supermarket, from regularly and frequently throughout a shopping trip to fairly infrequently.

My children will basically pester for something in each aisle.

Very rarely but occasionally does she pester me.

Parents suggested that children would regularly pester for a particular food item, and that this was predominantly related to the child’s preference or what had been purchased in the past.

...chocolate biscuits or ice cream, you know something sweet and treaty she will go for but not everything.
Whilst children generally requested food items verbally, some children also used non-verbal strategies to influence their parent to purchase something, including grabbing at items, putting food products in the trolley or initiating specific behaviours (such as helping or not asking) that they knew were likely to get a positive response from their parent. Parents indicated that having food items within easy reach and sight of children made it easier for them to grab the food item themselves.

But sometimes it’s biscuits and savoury snacks that they are allowed to have. They’ll go and help themselves off the supermarket shelf and put it in the trolley.

Prompts for food requests in the supermarket
Parents expressed strong beliefs about what influenced their children’s food requests in the supermarket environment. In particular, the packaging of products, including the colours, branding and characters that featured on the packaging. Parents reported that brand recognition occurred from a very young age, with children asking for products that had a favourite television or movie character on the front and even knowing the colours of certain brands.

I do remember when she was little little, and we would go [to the supermarket] she would see Wiggles and stuff…like when she was 2 or 3, and she would want to buy it because she could see the Wiggles on it and was attracted to that.

She knows Cadbury purple, she sees that and she knows what is in it.

Parents believed the layout of the supermarket, in terms of product placement and visibility, had an influence on their children requesting foods. Seeing certain food items placed at child-friendly heights prompted their children to request that product. Parents particularly found it difficult to deal with the checkout, noting that this was one area that could not be avoided and often involved waiting time.

The checkouts used to be awful, ’cause you, you’d get your whole way around the supermarket and then you had no options and you couldn’t manoeuvre them away when they were sitting in the seat and you were stuck there for a period of time and you couldn’t rush on through and like taking the same chocolate out of their hands five times. That was really frustrating.

There was mention of the influence of television advertising and children’s response to food advertising aimed at them. Parents described their children interacting with, and often believing, the statements made in television advertising and the impact that branding had on their choices. Parents also discussed the influence of advertising on their own choices.

Advertising is always about influencing the parent to buy this product.

Parents felt that peers had an influence on what their children requested, with items frequently being requested because someone else consumed the particular food. There appeared to be a link between peers and food packaging.

Once they start school someone’s got a princess yoghurt, someone’s got a Dora yoghurt…

Parents suggested that temperamental differences between children appeared to play a factor in their child’s requests. Food requests in the supermarket also appeared to change as children aged, with differences in the way they asked for food and how much they requested. Younger children appeared to be more influenced by what was visible and often in reach. In comparison, older children became more thoughtful about what they wanted and learnt different strategies to pester for an item.

…it’s the younger ones…especially with biscuits…and snacks that are on the bottom (shelf) that they can see and reach.

…and as they now are older…they’re thoughtful in their mind about the things that they want and they ask for them without even necessarily seeing them.

Parental responses to pestering in the supermarket environment
Parents described a variety of ways to manage their children’s requests for food in the supermarket. Parents discussed their own beliefs and attitudes about what constituted suitable foods, suggesting that if the food requested did not align with these beliefs then they tended to refuse to purchase it. However, parents acknowledged that there were times when they purchased the requested food item even if they did not think it was appropriate, as a treat or to reward good behaviour.
I don’t mind getting them a treat if they have been really good and it is their once a week treat that they get when I do go shopping or something like that. But yeah, every time if it’s just ‘but why can’t I?’ then I try to explain that every time we go shopping I don’t have to buy you something.

Some parents acknowledged that they may not purchase a food item requested very often but despite this their child would continually ask.

But my four year old will ask me for a treat everyday. It is a just a habit that she is in and she just thinks that if you just pester, mum will eventually give in… because somewhere in the past I have.

Parents were of the view that children learn from family values and parents believed it was important to remain consistent in their response to their children. When parents indicated that they were effective at being consistent with their children, this appeared to be reflected in the child’s behaviour, as they seemed to learn not to ask for certain foods or not to ask at all.

But I think your kids pick up very quickly on what kinds of things you buy and they know the things that they like and they know the things that you like and my kids now know not to ask for things that they know I don’t approve of.

However, it was apparent that parents differed in their consistency of responses to food requests. Parents described a number of factors that influenced their decision to purchase a requested food item, including stress levels, mood and previous intake of unhealthy foods.

It depends on a couple of things, if I’m in a good mood, I feel like it, and I don’t think it’s a bad idea I say yes. Sometimes, I’m stressed, not up for the fight I say yes. Other times I’m perfectly calm, have absolutely no intention and I say no. Depends, depends on if they’re behaved or not as well. That really influences. So if they’re behaved, you’re not normally stressed and cranky and… if they haven’t eaten a lot of rubbish recently like for, for whatever reason ‘cause we’ve been out, or done something or had a party or something. I may be much more likely to say yes. Other times, if they’ve been naughty or if they’ve eaten a lot of rubbish I may just say no.

Parents discussed using food to pacify the child throughout the supermarket trip.

We will avoid taking them (the children), but if I have to take them if I can get out of there with chocolate milk. It is the lesser of all evils and that’s a good trip.

I buy them a 50 cent lollypop and I never get hassled so to me… it is 50 cents well spent.

Parents indicated that stress often increased because of the child requesting or pestering for a food item, explaining that this may lead to forgetting items or deciding to go home sooner than expected.

Your blood pressure rises and you say no. It can be very frustrating, depending on how many times they ask you, when you are trying to concentrate I find that I always come home without things that I really needed to get, because you’ve constantly got that nagging, and even if you don’t give in to them it is just your blood’s boiling.

Additional cost was a strong factor in parents concerns about marketing. They recognized the potential costs involved in purchasing all products requested and the idea that individually packaged food items that had appealing packaging may have been more costly.

I have let them have yoghurts in the past even though I wasn’t too happy because it had Dora the Explorer on the top and I was just like this is just marketing and it is going to be expensive but I thought well ok it is a yoghurt so I will go along with that…

**Strategies to manage pestering and minimize requests for food items**

Parents discussed a range of strategies that they used to reduce the impact of pestering and get through the family shopping trip. Strategies ranged from tips around increasing children’s understanding of marketing techniques to managing children’s behaviour in the supermarket, avoiding cues and reducing the external impact. Parents discussed empowering children and helping them to understand the intention of marketing.

I think just educating your kids about what you are going there for and what the family’s values are and empowering them.

I think it is about explaining to them that it is not about the packaging. That is what I have started to do. Because you do not eat the packaging, you eat what is inside it. It’s not about ‘you have to buy that because it has the specific outlook on it,’ it is more about how it tastes.
Parents discussed different ways of minimizing pesterering and keeping children happy during the shopping experience. Suggestions included being consistent in their response to requests for foods, pacifying the child with a food/drink item whilst shopping, giving them some choice in the food (e.g. picking the shape of pasta) and occasionally giving them a treat or reward. Parents also indicated that they would avoid shopping with their children when possible. In situations where parents need to shop with their children, they discussed avoiding the larger supermarkets and using smaller, specialty shops, or choosing smaller supermarkets that have less choice, and less marketing directed towards children. Parents talked about trying to avoid certain aisles in the supermarket and the importance of ‘keeping moving’.

Parents also believed that getting their children involved in the shopping experience had many benefits, including keeping children distracted, reducing boredom and providing an opportunity for learning.

I find one thing that really does work well with my kids is just making them participate in the shopping experience. It helps with their boredom. But it doesn’t change the fact that the packaging is out there. But it does help the shopping experience if they have a role to play.

Parents talked about making sure that children had eaten before a trip to the supermarket or had a healthy snack they could consume whilst shopping. Not only was it suggested that children often assisted by marking off the shopping list, parents felt that a list could be used to refuse a request not on the list.

Parents expressed concern relating to food promotion aimed at children and the unhealthy foods promoted.

Well I just don’t see them promoting too many healthy things.

Parents expressed a strong desire to see less marketing directed at children; however, it was acknowledged that this would be difficult to achieve. Parents recommended a reduction in television advertising during children’s peak viewing times. There was the acknowledgement that reducing exposure to commercial television is a strategy that parents could use. There was a strong opinion that there should be a reduction in cues for children in the supermarket including packaging, child-friendly placement of products and availability of unhealthy foods at the checkout. Parents suggested more truthfulness about the healthiness of products in all avenues of marketing, including advertising and packaging. Parents also talked about their role as parents in managing the effects of food promotion and children’s desires for less healthy food options. Setting boundaries at a young age was one technique that was seen as effective in reducing the pestering behaviour.

When they are younger it is just want want want want and I wonder if because I was quite firm when they were younger if I am benefiting now.

Yeah, don’t reward those tantrums with what they want, because they’ll keep doing it.

DISCUSSION

To our knowledge, this is the first study that has explored the phenomenon of pester power in the supermarket environment and quantified the prevalence of food requests in this setting. Our results indicate that children frequently request food items in the supermarket and parents often acquiesce to these requests. Food promoted to children tends to be unhealthy in nature (Cairns et al., 2009), and as demonstrated in this study, the foods children requested at supermarkets were predominantly non-core. Whether an item was perceived as healthy or not did not play a role in a parent’s decision to purchase the item. Many parents chose to purchase items that they knew to be unhealthy, citing reasons such as a treat, reward or to keep their child quiet. There was a trend towards parents in the lower socioeconomic group succumbing to food requests for children in the supermarket. This may be related to lower levels of nutrition literacy amongst lower socioeconomic groups (Darmon and Drewnowski, 2008). As children in lower income families are more susceptible to poor eating habits, this finding suggests that marketing in supermarkets needs to be limited as well as education and resources developed for parents to cope with pestering in the supermarket.

The age of the child was not associated with the reported frequency or prevalence of food requests in the supermarket, although the qualitative discussions suggested that children might
respond differently to cues in the supermarket depending on their age. Theories of cognitive development have driven the argument that younger children are more susceptible to the effects of advertising due to deficits in understanding (Kunkel et al., 2004). However, others (Livingstone and Helsper, 2006) have argued that there is no evidence to back this theory, with all ages being influenced by advertising. An alternate theory of dual processing hypothesizes that younger children respond through the peripheral route that engages with superficial features such as colourful images and familiar characters. Older children and teenagers, who are perceived to have more advertising literacy, are more likely to be influenced by central processes relating to creative or informative aspects (Livingstone and Helsper, 2006). Parents in the current study described their children recognizing characters, brands and colours from an early age and suggested that their children were drawn to these foods, sometimes without regard for the actual product. This correlates with previous findings, suggesting that children from as young as 2 years old show brand recognition (Valkenburg and Buijzen, 2005). By developing children’s brand affinity through packaging, children’s relationship with a brand is strengthened (Harris et al., 2009b). Further research is needed to determine the marketing techniques that specifically influence different age groups and why older children seem to be more successful in their request being purchased.

Checkout displays and product packaging were two areas identified as troublesome by parents who regularly shop with their children. They found the checkout display an area that was high in food requests and difficult to avoid, and this is likely related to the high level of unhealthy food placed at child-friendly heights (Dixon et al., 2006). The placement and packaging of foods was seen to be a cue for pestering in the supermarket. As previous research has indicated that packaging that is appealing to children is more likely to promote unhealthy food options (Hebden et al., 2011), this may influence children to request less healthy foods. The supermarket environment was viewed as facilitating frequent requests for foods and parents expressed a desire for modifications to occur to reduce pestering, including confectionery-free checkouts, minimizing child-friendly placement of products and reducing the amount of food advertising children were exposed to on television.

Parents identified the need to educate and empower children to reduce the influence of food marketing. Increasing knowledge and understanding of promotional techniques is important for child development, particularly in the context of building a positive attitude to healthy eating. Although it is important to increase children’s understanding about the intent of advertising, evidence would suggest that this alone is not enough. Even when children acquire knowledge regarding advertising techniques, they continue to require prompting to use the information they have about advertising techniques and there is evidence to suggest training may be counterproductive (Harris et al., 2009a). As children continue to demonstrate being influenced by advertising once they have met the cognitive milestone of understanding the persuasive intent of advertising, solely educating children is unlikely to be effective in reducing the impact of food marketing (Livingstone and Helsper, 2006).

There has been limited research on parent’s role as mediator in decisions regarding children’s food intake. Parents spoke about difficulties dealing with constant requests throughout the supermarket. Interventions to reduce pestering power could include increasing parenting skills in behavioural modification to minimize requests, and could incorporate coping strategies raised by parents in this study. As the influence of the family is stronger when children are young, starting at an early age can help to develop children’s adherence to healthy eating patterns (Kral and Rauh, 2010).

Strengths of the current study include its mixed-method design, allowing a thorough exploration of a complex phenomenon (Lingard et al., 2008) and triangulation of results. The conduct of interviews in the real life supermarket setting adds to the strength of the design. Limitations include the low response rate to the intercept interviews. This was not surprising given the potential inconvenience due to pressure to get home with groceries and children. This low response rate may reduce the generalizability of the findings, although analysis of the demographic characteristics of the sample suggests that parents from a range of socioeconomic and educational backgrounds responded. The cross-sectional survey design does not allow for causal inferences to be drawn. Parents who participated in the intercept interviews only reported verbal requests for food items whilst the qualitative findings suggested that children use a variety
of techniques including non-verbal strategies to influence their parents to purchase a food item. This may translate to under-reporting of the prevalence of requests.

CONCLUSION

Requests from children for unhealthy food and drinks are common in the supermarket environment and parents often purchase the requested items, regardless of whether the item is healthy or not. The supermarket environment was viewed as facilitating frequent requests for foods and parents expressed a desire for environmental changes to reduce pestering, including confectionery-free checkouts, minimizing child-friendly placement of products and reducing children’s exposure to food marketing in general. Multiple approaches are required to limit the impact of marketing of unhealthy foods to children and the subsequent requests made to parents.

AUTHORS’ CONTRIBUTIONS

S. C., E. J., B. K. and K. C. conceptualized the intercept interviews and designed the interview schedule. S. C., E. J. and J. B. conceptualized the qualitative component and designed the interview schedule. S. C. and F. S. trained the surveyors and supervised the quantitative data collection. S. C. conducted the qualitative interviews. S. C. and E. J. conducted the statistical and thematic analyses. All authors contributed to the manuscript writing and approved its final content.

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