

**Parental attitudes towards advertising to children and restrictive mediation of children's
television viewing in Belgium**

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Abstract

Keywords: advertising to children, food advertising, parental mediation, parental attitudes

Research paper

Purpose

To investigate parents' attitudes toward advertising to children, and advertised foods in particular, as well as parental concern regarding children's nutrition habits and the degree to which these perceptions influence television monitoring by parents.

Design/methodology/approach

A questionnaire assessing attitudes was distributed among parents of Belgian primary and secondary school children. Parental mediation of television viewing was measured by self-reports. A structural equation model was built using data from a sample of 485 parents.

Findings

Parental nutrition attitudes and the degree to which advertising causes family conflicts and pestering are among the most important drivers of restrictive mediation of television. Attitudes towards food advertising, the degree to which children can understand the commercial intent of advertising and the perceived influence of ads on children do not directly affect restrictive mediation.

Research limitations/implications

The model was based on a single-country study, and did not distinguish between parents of different socio-economic backgrounds or between parents with children in different age categories. All the constructs used in this model were self-reports. The model could also be extended to encompass different types of mediation.

Practical implications

Parents serve as gatekeepers for children's television viewing. Advertisers targeting children need to obtain the green light of the gatekeepers before they can reach the children. It is therefore important that advertisers have an understanding of how parents perceive advertising and which factors specifically incite them to restrict their children's viewing.

Original/value of paper

Attitudes of parents are considered as a multidimensional construct, consisting of "commercial intent", "conflict" and a separate component relating to advertised foods. The differential impact of each of these components, as well as parents' nutritional concerns and perceived ad influence, on restrictive mediation is assessed.

Introduction

The average child in the UK watches about 17 hours of television per week (Ofcom 2004). It is estimated that in the US, children spend more time watching television than they do anything else besides sleeping (Prevention Institute 2002). The average American child sees more than 40,000 television advertisements a year (Kunkel et al. 2004). Advertisers are spending more than US\$15 billion per year to target the US youth market (CSPI 2005). The substantial investment in promotion to children is attributed to the strong contribution of children to the consumer economy. Children age 12 and under are estimated to make US\$35 billion in direct purchases and influence US\$670 billion worth in family purchases (Kelly & Kulman 2004).

Ads for food and drinks during children's programmes are estimated to constitute 37% of all ads in the US, 49% in the UK; and 30% in Australia (Furnham et al. 1997; Lavelle 2004). Food and soft drinks manufacturers and chain restaurants in the UK together spent £727 million (US \$1,276 million) on advertising in 2003, £522 million (US \$916 million) of which went to television (Ofcom 2004). Studies in the US, Europe and Australia have concluded that between 55% and almost 100% of food advertisements to children promote convenience and unhealthy foods (i.e. foods high in fats, sugar, cholesterol and salt) (EHN 2005; Harrison 2005; Harrison & Marske 2005; Neville et al. 2005; Ofcom 2004).

In general, advertising to children has been accused of misleading children who do not have the cognitive abilities to understand its true intent, influencing children in their buying and requesting behaviour, and causing parent-child conflicts and materialism (e.g. Buijzen & Valkenburg 2005; Dittmann 2004; Ludwig & Gortmaker 2004). Food advertising to children is heavily critiqued for contributing, through its influence on children's nutritional choices, to the increase in childhood obesity (Harrison & Marske 2005; Hastings et al. 2003; Kaiser 2004). The negative social consequences of advertising on children are one of the reasons parents frequently intervene in their children's television viewing behaviour (Bijmolt et al. 1998).

The purpose of this study is to investigate to what extent parents' concern with their children's eating habits, attitudes towards (food) advertising directed to children, and its perceived

influence on children determine the degree of influence parents exert on their children's television viewing behaviour. A structural equation model is built and estimated using self-reports of Belgian parents. In the next section, the literature on attitudes towards and parental monitoring of children's advertising is reviewed. An explanatory model for active parental mediation of children's television is proposed. The data collection and research method is explained, and estimation results are reported and discussed. Finally, we offer conclusions, implications, and suggestions for further research.

Attitudes toward (food) advertising to children

Advertising to children has been criticised for several decades. Burr and Burr (1976) reported that US parents had strong doubts about the honesty of advertising to children and displayed a strong degree of cynicism about its perceived misleading aspects. More recently, the American Academy of Pediatrics has expressed concerns that advertising directed to young children is deceptive and exploitative (Ludwig & Gortmaker 2004). Television advertising is cited as manipulative, arousing desires which would not otherwise be salient, promoting materialism, and stifling creativity, imposing stress and strain on low-income parents, and disrupting parent-child relationships (Burr & Burr 1976; Buijzen & Valkenburg 2003; Spungin 2004). Particular reason for parental concern regarding advertising is that children are regarded as vulnerable; they don't have the cognitive abilities to understand advertising, and are not mature enough to make choices that affect them or their health (Bijmolt et al. 1998; Clarke 2003; 2005). Although it is widely accepted that children from the age of 5 can understand the difference between a programme and an advertisement, and that, from 8 years onwards, they also understand the commercial intent of advertising (Kunkel et al. 2004; Preston 2005; Wright et al. 2005), this does not mean they are not influenced by it (just like anyone else). Studies on the behavioural effects of advertising have found that television watching by children is correlated with requests for advertised products (Valkenburg 2000). A particularly negative potential effect of children's advertising is the 'pester power' or 'nag factor' (Young 2003; Spungin 2004; Clarke 2003), i.e. 'advertising encourages children to nag their parents into something that is not good for them, they don't need or the parent cannot afford' (Spungin 2004, p. 37). For example, one third of food and beverage purchases have been reported by parents as 'nagging driven' (Preston 2005).

In addition to concerns regarding children's advertising in general, many parents also hold negative attitudes towards food advertising to children in particular. Grossbart and Crosby (1984) state that positive parental nutritional tendencies lead to objections to television food advertising aimed at children. Parents in a US focus group discussion questioned the truthfulness of food claims in advertisements, and some even suggested that the advertisements deliberately lied (Flinders 2004). The UK Consumers Association recently reported that parents find that food advertising makes it hard for them to provide a healthy diet to their children (Preston 2005). Chan and McNeal (2003) concluded that Chinese parents held negative attitudes toward television advertising in general, children's advertising and food advertising to children in particular, because they believe that it encourages bad eating habits. Although the empirical evidence for the link between obesity and television viewing and advertising is mixed at best (Eagle et al. 2004; Livingstone 2005; Vandewater et al. 2004; Young 2005), Livingstone (2005) has suggested that, implicitly at least, most researchers do not seem to deny a certain (albeit modest) influence of food advertising on food choices, especially with children.

The perceived negative characteristics of children's (food) advertising may only worry parents insofar that they believe that advertising has a direct influence on children. Halford et al. (2004) found a correlation with the amount of food eaten after exposure to ads. The authors concluded that exposure to food advertisements promoted consumption. Others claim that advertising is aimed at brand sales, not category sales, the latter being established long before exposure to ads (Lvovich 2003; Young 2003). Although it is generally assumed that many – if not most – parents are concerned about the effects of advertising on children, the evidence is inconsistent (Grossbart & Crosby 1984). Spungin (2004), in a UK study with 1,530 parents, concluded that parents did believe children were influenced by advertising, but also that they thought that parents had more influence than ads and accepted advertising as part of modern life.

Furthermore, parents retain control of their children's diets as they are in charge of 90% of the food purchases (Clarke 2003). Although the link between food advertising and eating habits and obesity is unclear and correlations cannot be interpreted as causation, concerns remain regarding the amount of advertising promoting (unhealthy) food products, and the way it could be blurring

the line between diet and nutrition (Harrison 2005). Most concerns stem from the uncertainty regarding advertising's potential to influence children's health attitudes and behaviours (Zappa et al. 2003).

Parental mediation of television content

The above-mentioned concerns regarding advertising to children have lead parents to undertake measures to try and limit advertising's influence on children (Nathanson et al. 2002). As the bulk of advertising to children takes place on television (Ofcom 2004), and television viewing itself is often considered an important factor in the growing occurrence of childhood obesity (Young 2005), the debate often revolves around this medium. Some parents call for government regulation and control. The Belgian government, for example, prohibits advertising in a 5 minute time span surrounding children's programmes (Prevention Institute 2002). On the other hand, parents also try to mediate the impact of television themselves (Nathanson et al. 2002). Parents serve as gatekeepers of television content by taking control over children's viewing time and content. Advertising targeting children therefore needs to obtain the green light of the gatekeepers to reach the children in the first place and possibly be effective (Chan & McNeal 2003). Koolstra and Lucassen (2004), Valkenburg et al. (1999), and Warren et al. (2002) distinguish three styles of parental mediation: social co-viewing, instructive guidance (also known as active mediation), and restrictive guidance. Social co-viewing refers to parents simply watching television with their child without discussing its content (Dorr et al. 1989). A more active form of mediation is instructive guidance, where parents discuss television content with their children in order to help them understand the meaning of television programs or the commercial intent of advertising (Bybee et al. 1982). Restrictive guidance pertains to imposing restrictions on the child's amount of viewing and/or on the material watched (Bybee et al. 1982). This type of guidance can reduce the amount of time children spend watching television, increase children's understanding of advertising, and diminish purchase requests (Van den Bulck & Van den Bergh 2000; Wiman 1983). On the other hand, it may also result in lower understanding of TV advertising among children (Bijmolt et al. 1998). Opinions differ on whether active or restrictive mediation are the most effective in counteracting the negative

effects of advertising (Buijzen & Valkenburg 2005; Bijmolt et al. 1998; Robinson et al. 2001; Wiman 1983).

Many parents appear to be actively mediating their children's television viewing behaviour. Koolstra and Lucassen (2004) concluded that parents and children agreed that co-viewing was practiced most often and restrictive guidance the least. Contrarily, Nathanson et al. (2002) suggested that restrictive mediation was more often applied than instructive guidance. Previous research has shown that active and restrictive mediation are likely to be used concurrently by parents (Abanto 2004; Valkenburg et al. 1999). In an earlier study (Greenberg et al. 1991), 74% of Chinese children agreed there were rules at home regarding how long they could watch TV. Chan and McNeal (2003) concluded that 89% of Chinese parents exercise control over the contents and time of their children's television viewing, but found no correlation with attitudes toward (children's) advertising. Several studies (e.g. Abanto 2004; Austin et al. 1999; Nathanson 2001; Nathanson et al. 2002; Grossbart & Crosby 1984; Rose et al. 1998; Wiman 1983) have concluded that parents with negative attitudes towards television advertising more strictly control their child's viewing behaviour. Two European studies, however, found that parents did not often attempt to mediate the impact of television advertising on their children (Buijzen & Valkenburg 2005; Ofcom 2004).

A model of parental mediation

This paper investigates in which way different components of parental attitudes towards advertising to children in general and food advertising to children in particular predict parental restrictive mediation of children's viewing behaviour for a sample of Belgian parents. Exhibit 1 represents the conceptual model. We expect that attitudes towards children's food habits and the extent to which parents believe that children are influenced by advertising have an impact on their monitoring of their children's television viewing. We also expect parents who believe more strongly that advertising influences children to more strictly control their children's viewing behaviour if this belief results in attributing negative consequences to advertising. Similarly, parents who are more concerned with their child's nutrition will impose more restrictions on their children's viewing behaviour, but this effect can also be expected to be (partly) mediated by

their resulting attitude towards food advertising. In the next section, the basic constructs are developed for use in a structural equation model.

<<Exhibit 1 goes here>>

Data collection and research method

Data collection

The model of parental restrictive mediation was estimated using data from a sample of parents in Belgium. A questionnaire was developed that contained statements with respect to various components of attitudes towards (food) advertising directed to children, the perceived influence of these advertisements, the degree of influence parents exerted on their children's television viewing behaviour, and the attitude towards children's food habits. All statements had to be answered on five-point Likert type scales (completely disagree – completely agree). The questionnaire was administered through primary and secondary schools. The questionnaires, together with a covering letter, were given home with the children for the parents to complete. The completed questionnaires were collected in the schools. In total, 485 respondents cooperated (response rate: 40.4%), 80% were mothers, 22% had one child, 45% had two children, 21% had three children and 8% had four or more children, children were of all ages between 1 and 18.

Construct definition

Parents' *attitude towards advertising to children* was measured by means of a set of 12 items. Exploratory and confirmatory factor analysis resulted in a three construct measurement model that fitted the data well. The first attitude component was named "*Commercial*" ($\alpha = .690$) and averages the scores of two items (Children are able to distinguish between programmes and advertising; Children are able to understand the commercial intent of advertisements). The second component averages three items pertaining to "*Conflict*" ($\alpha = .755$) (TV advertising is an important cause of my children pestering me for advertised products; TV advertising encourages my children to want products they don't need; TV advertising to children leads to family conflict). The third item was particularly related to "*Food ads*" ($\alpha = .883$) (There is too much sugar and fat in food products

advertised in TV programmes directed at children; There are too many additives in food products advertised in TV programmes directed at children). In addition, the *influence of advertising on children* was measured by means of two statements ($\alpha = .909$) (Children are influenced by advertising in children programmes; Children are influenced by advertising in other (e.g. family and adult prime time) programmes). We also measured *parental concern with child nutrition* by means of two items (I am concerned about getting my children to eat ‘good’ foods; Children should be allowed to eat whatever they want), but because they did not sufficiently correlate ($r = -.188$) to be considered as one construct, we chose to consider these two items separately in the further analyses. The dependent variable, *parental restrictive mediation* ($\alpha = .903$) was measured as the average of three items (I determine how much television my children can watch; I decide when my children can watch television; I control which programmes my children watch).

Results

The means (on a scale from 1 to 5), standard deviations and response frequencies of the scores of each of the constructs derived in the previous section, are given in Exhibit 2.

<<Exhibit 2 goes here>>

Overall, advertising to children appears to be of moderate concern to Belgian parents. Only 20% of parents thought advertising had influence on their children, and almost no parents thought that it caused a great deal of conflict and pestering. More than half of the parents also stated to believe that their children were capable of understanding advertising’s commercial intent. Contrarily, most parents expressed a great deal of concern with their children’s eating habits, as well as negative attitudes towards food advertising. Almost all parents stated they exert at least some influence on the quantity and timing of their child’s television viewing behaviour. Parents exerted less influence on which television programmes their children could watch.

The constructs were used to estimate the structural equation model in Exhibit 3 using AMOS 5.0. We chose to consider the construct ‘commercial’ as an antecedent to ‘ad influence’: the more parents believe that children understand the commercial intent of advertising, the less they will

believe they are influenced by it. The construct ‘conflict’ was expected to mediate the relationship between ad influence and restrictive mediation: the more parents believe children are influenced by advertising, the more they will feel it leads to conflicts which, in turn, will increase parents’ desire to control their children’s viewing behaviour. The same goes for food ads: the more parents think that children are influenced by ads, the worse they will feel about unhealthy food products being promoted, and the harder they will try to control advertising’s influence by controlling children’s viewing behaviour.

Goodness-of-fit measures are provided in Exhibit 4. The model fitted the data well. Chi-square over degrees of freedom is 2.177, which is below the desirable maximum level of 3 suggested by Bollen and Stine (1993). The root mean square error of approximation (RMSEA) is .049, which is also below the maximum recommended value of .05 (Hu & Bentler 1999). The comparative fit index (CFI = .973) and non-normed fit index (TLI = .964) are above the minimum value of .95 recommended by Hu and Bentler (1999). All standardized item loadings are significant and higher than .50.

Not all expected paths, especially those leading up to restrictive mediation, were significant at $\alpha = .05$. The degree to which parents believe children understand the commercial intent of advertising and the influence ads have on children do not directly seem to influence parental restrictive mediation of television. However, these constructs have an indirect effect, mediated by the degree of conflict that advertising causes, when children pester their parents for products seen advertised. The more parents feel television ads can cause conflicts between them and their children, the more they will restrict their children’s television viewing. Parents with less liberal ideas on children’s food choices, who more strongly believe that children should not be allowed to eat just whatever they want, also more strictly control their children’s viewing behaviour. Contrarily to expectations, this effect was not mediated by parents’ attitude towards advertised foods. Although as expected, parents who more strongly believed that children should not be allowed to eat whatever they wished did also report more negative attitudes towards advertised foods, the reputation of food ads as such does not seem to be a reason for parents to restrict their children’s television viewing. Parental concern over ‘good’ foods remarkably did not seem to affect the attitude towards food ads, nor restrictive mediation, although the latter direct effect could be interpreted as approaching significance ($p=.109$). The total effects of the independent variables on restrictive mediation are shown in Exhibit 5. Parental tolerance for children’s eating

habits, together with the degree of conflict advertising is perceived to cause, are the most significant determinants of parental television mediation of the model. The impact of the degree to which parents believe children can understand the commercial intent of advertising, are influenced by it, and parental concern with their children's nutrition, is mediated by the perceived degree of conflict caused by ads, but all three of these factors fail to reach conventional levels of statistical significance on the dependent variable. Parental attitudes toward advertised foods were the least important determinant of parental restrictive television mediation in the model.

<<Exhibits 3, 4 and 5 go here>>

Discussion

Parental perceptions of the nagging effect of children's advertising and children's understanding of advertisements and commercial intent were not very outspoken. The score on the perceived advertising influence construct is the lowest of all constructs. This seems to indicate that, on average, parents are not too worried about the influence of ads on children. The moderate attitudes we found in the study contrast with the clearly negative attitudes that have been found in other (US) studies (see e.g. Chan & McNeal 2003; Spungin 2004, Clarke 2003; 2005). On the other hand, a study in the UK (Ofcom 2004) has concluded most parents were non-judgmental. Besides cultural differences in attitudes and perceptions of parents, the mere effect of a substantially higher advertising pressure per capita may also account for the difference. The large age range of the children of the parents under study may also have attenuated results here. Parents with younger children might hold stronger concerns about advertising's impact on their children, although we did not test this formally.

However, parents in this study did express concern with their children's eating habits and parental attitude towards food advertising were negative. The scores on the latter factors were the most outspoken of all the factors in the model. We found over 90% of parents exert at least some influence on their children's viewing behaviour, be it on when, how long, or which programmes they are allowed to watch. These results are consistent with findings by Chan and McNeal (2003) in China. The level of restrictive mediation practiced by parents is also similar to that found

reported by parents in Koolstra and Lucassen (2004), but higher than what was reported in e.g. Buijzen and Valkenburg (2005).

The explanatory model estimation results indicate that parents' intolerant ideas on children's eating habits and the belief that advertising causes family conflicts are amongst the most important drivers of parental restrictive mediation of television. The idea that children cannot understand advertising's commercial intent, or that they are influenced by it as such does not seem to incite parents to limit advertising's effects by restricting television viewing. Food advertising to children also did not affect parents' control on their children's television viewing. This is in line with the conclusion of Spungin (2004) that parents still believe that their impact on children is at least as substantial as that of advertising. The conclusions of e.g. Grossbart and Crosby (1984) and Nathanson et al. (2002), that parents with negative attitudes towards television advertising more strictly control their child's viewing behaviour could only be supported for the attitude-construct relating to parent-child conflict. Other components of parental attitudes toward advertising do not seem to impact the degree to which parents control their children's general television viewing.

These results are opposite the ones we found in a study of parental desire for government regulation (Dens et al. 2006). In this study, attitude toward food ads and the perceived influence of ads on children were the most important drivers of regulation, whereas the degree of conflict caused by ads, did not determine parents' desire for regulation. Perhaps Belgian parents more heavily rely on the government to regulate advertising to limit the negative effects on all children in general. Only when they experience the negative consequences themselves in the form of family conflict, will they act upon it themselves and restrict their children's possible contacts with advertising. Nathanson et al. (2002) have suggested that parents who mediate children's television viewing will also be more likely to support censorship. The correlations in our sample, albeit significant at the .01 level, are moderate: .196 for government regulation and ban, and .190 for softer industry and independent organization-driven measures. Moreover, it is apparent that the drivers for mediation and regulation are different.

Conclusion, implications, and suggestions for future research

In general, the empirical results confirm that the conflict caused by advertising is a determinant of parents' decision to limit their children's television viewing in general. Attitude towards food advertising, the perception of the influence of advertising on children and the extent to which they understand its commercial intent are insignificant in determining parental restrictive mediation. Parents with more liberal child nutrition ideas also seem to hold a more liberal view on television viewing.

What are the implications for advertisers, regulatory pressure groups and governments? Belgian parents on average do not seem to be extremely worried about advertising's effects, although they did express the most outspoken concerns with respect to advertised food products, and their children's diets. However, parental concern with good foods in this model did not determine their attitude toward food advertising, nor the amount of influence exerted on children's television viewing. Parents seem to feel they can handle the effects of food advertising without placing constraints on their children's viewing behaviour. Only when parents feel that advertising causes pestering for unnecessary products, do they intervene by restricting television viewing. As effective advertising needs to reach children first, past the parents, advertisers might do better to take a more responsible approach. As Kurnit (2005, p. 10) has stated: "The children's industry has done itself no favours by referring to kid product influence with the expressions 'nag factor' and 'pester power'. These ideas suggest a manipulative relationship between marketer and child." Gray (2005) argues that industry self-regulation is one of the best ways for advertisers to demonstrate their responsibility, but a great deal of scepticism concerning self regulation exists among parents and other stakeholders (Burr & Burr 1976; Gray 2005). Advertising pressure groups are already calling for a more responsible approach in advertising, which could help alleviate family conflicts and relieve the burden of parents having to strictly control their children's television viewing. With more and more children watching television in their own bedroom, where less parental mediation will occur, a responsible approach to advertising by the industry becomes especially important. The moderate concerns of parents noted in this study could signal to governments that perhaps strict regulations are not called for by everyone. Previous research has shown for that matter that parents are not strongly in favour of hard regulations on children's television advertising (Dens et al. 2006; Spungin 2004).

Further research should concentrate on a number of issues that were not sufficiently developed in this study. For example, how do government regulations and parental mediation interact? The extent to which parental attitudes and perceptions differ between parents of different socio-economic backgrounds and between parents with children in different age categories remains unclear. Further work could analyze potential differences between the aforementioned subgroups. The model developed in this study could also be extended to encompass different types of mediation, in stead of only restrictive mediation. Nathanson et al. (2002) showed parents with more positive attitudes more often used co-viewing than restrictive mediation. Perhaps other components of attitudes determine other types of mediation. There is certainly also room for improvement of the constructs used here. All the constructs used in this model were self-reports. Koolstra and Lucassen (2004) found there was a difference in perceived mediation between parents and children, suggesting parents may not be able to accurately report their mediation efforts. Actual mediation may have to be measured more precisely. Finally, it would be interesting to extend our findings to more countries, especially to countries already imposing stricter advertising regulations or banning it totally.

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Exhibit 1. Conceptual model for parental restrictive mediation

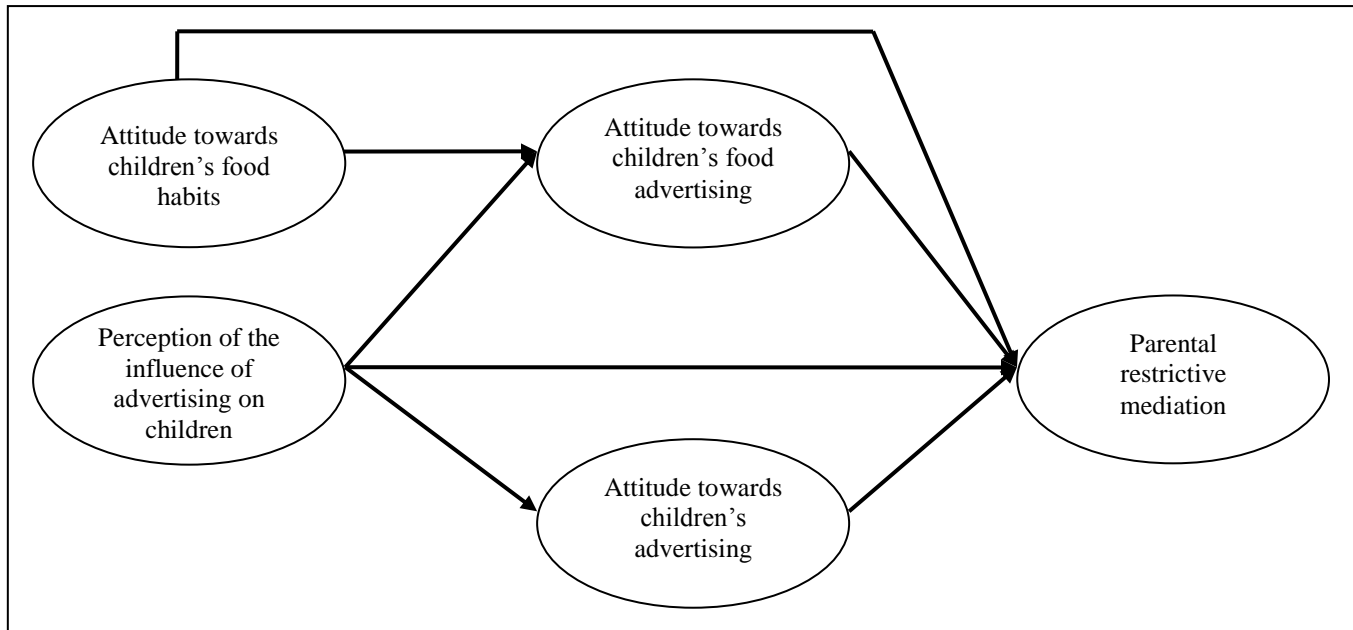
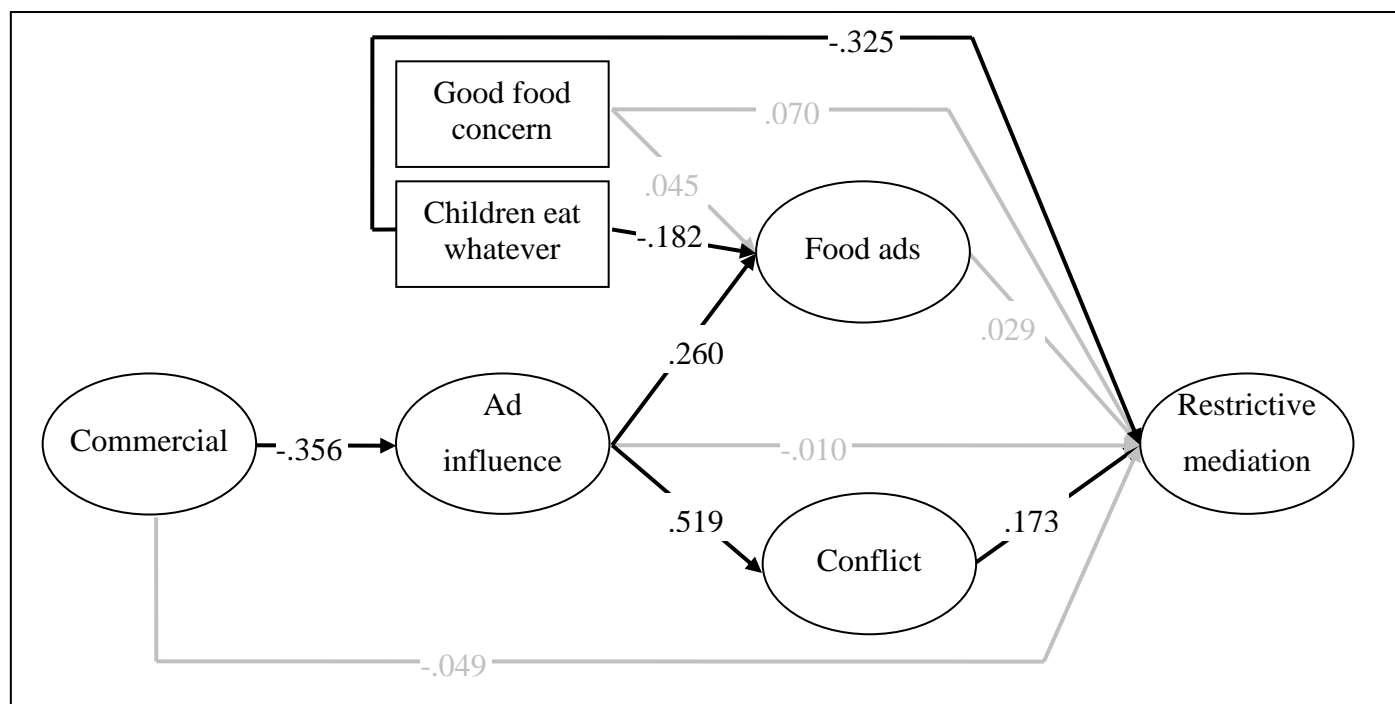


Exhibit 2. Mean scores and standard deviations for each construct

Construct	Mean	St. dev.	% totally disagree	% disagree	% agree nor disagree	% agree	% totally agree
Commercial	3.46	.925	2.3%	11.2%	25.6%	46.8%	14.2%
Conflict	2.52	.821	11.3%	37.1%	39.2%	12.5%	.2%
Food ads	3.51	.821	1.6%	5.1%	36.0%	44.0%	13.8%
Ad influence	2.53	.983	10.9%	39.7%	29.1%	15.3%	4.9%
Good food concern	4.16	.719	.4%	2.5%	9.3%	56.7%	31.1%
Children should eat whatever	1.80	.697	33.2%	56.7%	7.0%	3.1%	0%
Restrictive mediation	3.47	1.169	8.7%	12.4%	24.1%	31.3%	23.5%

Scores were given on 5-point Likert scales: 1=completely disagree, 5=completely agree.

Exhibit 3. Path analyses results (standardized effects)



→ Significant path ($p \leq .05$)
 → Insignificant path ($p > .05$)

Exhibit 4. Goodness-of-fit measures of model estimation

Chi ²	d.f.	CMIN/DF	GFI	AGFI	TLI	CFI	RMR	RMSEA
148.032	68	2.177	.959	.936	.964	.973	.059	.049

Exhibit 5. Standardized total effects of all constructs on restrictive mediation

Construct	Children can eat whatever	Conflict	Ad influence	Commercial	Good food concern	Food ads
Effect	-.330	.173	.087	-.080	.071	.029
Sig.	.002	.003	.139	.147	.136	.576