

# Mothers' attitudes towards advertisements and food-related parent-child conflict

## Abstract

**Purpose** - This exploratory study investigated the extent to which mothers' attitudes towards TV advertisements and other factors (e.g. mothers' employment and involvement in their children's lives) influence the frequency of mother-child conflict over children's food choices. To identify relationships between diverse variables, the ecological model of child development was applied as a theoretical framework.

**Methodology** - A purposive convenience sample of mothers with seven- to twelve-year-old children completed a survey including questions concerning demographic information and mothers' opinions and perspectives regarding TV advertisements and mother-child conflict.

**Findings** - Results indicated that mothers' employment status and attitudes towards advertisements targeting children significantly influenced the frequency of mother-child conflict, which was ultimately related to children's obesity.

**Research limitations/implications** - The most important factor contributing to mother-child conflict was mothers' attitudes towards TV food advertisements. More negative attitudes increased the likelihood of mother-child conflict. Although the variables used in the present study were major factors in mother-child conflict, other factors, such as presence of siblings, parental health-related behaviour, parental attitudes towards food, and instructions provided at school, should be considered in future.

**Originality/value** - The influence of mothers' attitudes towards TV advertisements on mother-child conflict over food choices is a rarely studied but important issue. These findings offered some useful insights including the need for examination of diverse environmental factors, such as children's media usage and mothers' employment status and attitudes towards TV advertisements, when examining the effects of TV advertising on children.

**Keywords** TV food advertising, Parent-child conflict, Childhood obesity, Ecological theory of child development

**Paper type** *Research paper*

## 1. Introduction

According to several recent reports, high childhood obesity rates are a major concern in many societies including the UK and USA (Livingstone and Helsper, 2006; Maniccia *et al.*, 2011; Ogden *et al.*, 2012; Centers for Disease Control and Prevention, 2014; Newman and Oates, 2014; Skinner and Skelton, 2014). The Centers for Disease Control and Prevention (2014) announced that the obesity rate in six- to eleven-year-old children in the USA had increased fivefold since the 1970s. At present, almost one-third of children and adolescents (more than 23 million) are overweight or obese (National Collaborative on Childhood Obesity Research, 2011). The main reason that the childhood obesity epidemic warrants greater attention is that childhood obesity has been linked to obesity later in life (Debby, 2005; Pereira *et al.*, 2005; U.S. Department of Health and Human Services, 2012; White *et al.*, 2012; American Heart Association, 2014). There is a chance of approximately 70% that obese children will become obese adults, leaving them more susceptible to several preventable diseases relative to adults of average weight (White *et al.*, 2012; Park *et al.*, 2013; American Heart Association, 2014).

In view of this, numerous media reports and researchers have identified several factors, such as innate food preference (Young, 2003; Salerno *et al.*, 2014), siblings and peers (Benton, 2004; Chari *et al.*, 2014), adults' behaviour (Harper and Sanders, 1975; Yu and King, 2009), parental food preference and beliefs (Campbell and Crawford, 2001; Gollust *et al.*, 2013), and exposure to diverse media content (Caroli *et al.*, 2004; Maimaran and Fishbach, 2014), associated with unhealthy eating habits and consequent obesity in children (Gunter *et al.*, 2005; Livingstone, 2009; Newman and Oates, 2014). More specifically, according to some studies (Boynton-Jarrett *et al.*, 2003; Henderson and Kelly, 2005; Howard Beales and Kulick, 2013), children's exposure to television (TV) advertisements contributed to poor eating habits, resulting

in obesity.

Regarding the relationship between childhood obesity and TV advertisements that promote food for children, some researchers, including Livingstone (2006; 2009), have recommended the application of different approaches and efficient discussion regarding the issue (Blissett and Bennett, 2013; Park *et al.*, 2013). In particular, Livingstone (2006; 2009) emphasized that the answers pursued by many previous studies in which this relationship was examined, such as whether relationships between the variables were present or absent, were oversimplistic. According to this perspective, the current situation is not conducive to the establishment of effective policies, which will ultimately resolve this controversy if polarized opinions continue (Livingstone, 2006; 2009). Livingstone highlighted a clear need to investigate diverse variables, such as an additional hour viewing TV rather than advertisements each day, in a multifactor context to examine the relationship between exposure to TV advertisements and children's food choices, which are closely related to obesity (Story *et al.*, 2002).

In addition to their potential role in childhood obesity, TV advertisements targeting children may precipitate mother-child conflict over children's food choices (Buijzen and Valkenburg, 2005; McDermott *et al.*, 2006; Yu, 2011; Owen *et al.*, 2013), which was the main topic in the present study. Such conflict is common in many families and influences relationships (Isler *et al.*, 1987; Buijzen and Valkenburg, 2003; Owen *et al.*, 2013). However, despite their frequency and importance, conflict and other types of mother-child communication regarding children's food choices have not been studied extensively from diverse perspectives (McDermott *et al.*, 2006; Buijzen and Valkenburg, 2008; Yu, 2011; Newman and Oates, 2014). Therefore, in view of these circumstances, this exploratory study investigated the possible influence of mothers' attitudes towards TV advertisements on mother-child conflict over children's food

choices. In addition, the effects of several parental factors (e.g. mothers' employment status, education, and involvement in children's daily lives, and the extent of their communication with their children) on the frequency of mother-child conflict over food choices was examined.

As some significant relationships between the variables mentioned above and conflict frequency were assumed, the ecological model of child development (Bronfenbrenner, 1979; 2001) was applied as a theoretical framework, because the core concept of the theory is that any type of child development (e.g. children's eating habits and attitudes towards TV advertisements and the characteristics of family members) could be influenced by multiple environmental factors concerning children, mothers, other family members, and even diverse societal issues.

### ***1.1 Parent-Child Conflict over Children's Food Choices***

Whilst most studies examining the negative effects of TV food advertising on children have explored physical consequences, such as obesity and health consciousness (Harrison and Marske, 2005; Federal Trade Commission, 2006; Livingstone and Helsper, 2006; Oates and Newman, 2010; Rose *et al.*, 2012; Owen *et al.*, 2013), some studies have examined other factors (McDermott *et al.*, 2006; Poor *et al.*, 2013; Newman and Oates, 2014). Of these factors, the facilitation of mother-child conflict is an important concern in today's society (Isler *et al.*, 1987; Dens *et al.*, 2007; Yu and King, 2008; Ahn *et al.*, 2009). According to Buijzen and Valkenburg (2003; 2005), there are three types of unintended effect of advertisement exposure on children: 1) materialism, 2) feelings of unhappiness, and 3) parent-child conflict, defined as a child's negative reaction to a parent's denial of a purchase request. Several studies have reported a relationship between children's exposure to advertisements and their purchase requests (Atkin, 1975; Buijzen and Valkenburg, 2000; Mcleay and Oglethorpe, 2013). Some studies have also suggested a direct relationship between purchase requests and parent-child conflict (Atkin, 1975;

Robertson *et al.*, 1989; Buijzen and Valkenburg, 2008; Yu, 2011). In particular, parent-child conflict over food choices is important, as it negatively influences children's physical health and contributes to the deterioration of family relationships (Buijzen and Valkenburg, 2003; McDermott *et al.*, 2006).

Parent-child conflict occurs for several reasons: 1) the child suffers from a disease (e.g. Viikinsalo *et al.*, 2005), 2) it originates from relationships with siblings (e.g. Sherman *et al.*, 2006; Choo and Shek, 2013), 3) it follows divorce (e.g. Riggio, 2004), and 4) it originates from issues related to media content (e.g. Nathanson, 2002; Yu and King, 2008). Of the types of conflict caused by media content, those fuelled by children's exposure to TV advertisements have been an important research issue (Buijzen and Valkenburg, 2005; Norgaard and Brunso, 2011). According to several early studies, advertising that targets children can encourage them to pressurize their parents to buy certain products, causing conflict (Chaffee *et al.*, 1970; Sheikh *et al.*, 1974; Norgaard and Brunso, 2011). Using the story completion method, Sheikh and Moleski (1977) found that commercials influenced children by encouraging them to make more purchase requests and reducing their tolerance of parental refusal, increasing the likelihood of aggressive reactions in situations involving conflict. Therefore, exposure to advertising influences the frequency of purchase requests made by children and affects their behaviour towards their parents (Isler *et al.*, 1987; Yu and King, 2008; Norgaard and Brunso, 2011).

Several factors that influence the relationship between children's advertising exposure and parent-child conflict have been identified in previous studies. Children's age has often been shown to be a crucial variable in parent-child interaction (Yu and King, 2008). For example, Atkin (1975) found that comparatively older children (aged seven to eleven years) were more strongly influenced by advertising relative to younger children (aged four to six years).

Similarly, in other studies comparatively older children (aged seven to eleven years) were more strongly affected by advertising, resulting in greater parent-child conflict (Kuczynski *et al.*, 1987; Metcalfe and Mischel, 1999; Buijzen and Valkenburg, 2008). Another important variable is the child's sex. In several studies (Atkin, 1975; Kohn, 1994; Buijzen and Valkenburg, 2000), boys were more likely to engage in parent-child conflict over several issues, including food choice, all of which were precipitated by the effects of advertising. Relative to girls, boys are typically more independent and less compliant with parental requests and demands (Cowan and Avants, 1988; Kindsvatter and Desmond, 2013). In addition to age and sex, parental characteristics and home environment may affect conflict frequency. For example, Warren (2005) determined that, owing to parents' limited financial resources, children in low-income families experienced a greater degree of parent-child conflict over food purchase requests.

### ***1.2 Relationship between Environmental Factors and Conflict: Applying the Ecological Theory of Child Development***

The ecological theory of child development (Bronfenbrenner, 1979; 2001) was used as a framework for the examination of diverse environmental factors, including the influence of TV food advertisements, which affected the frequency of parent-child conflict over food choices. The basic concept of the theory is that all facets of child development are influenced by constant interaction between children and various environmental factors such as schoolteachers, peer groups, media content, and parental attitudes towards advertising. Bronfenbrenner categorized the environmental factors that influence child development into micro-, meso-, exo-, and macrosystems. The current study adopted this theoretical structure to examine the possible relationships between parent-child conflict and various environmental factors such as the influence of TV food advertisements. The term, 'child development' was replaced by 'mother-child conflict over food choices', and the relationships between such conflict and diverse

environmental factors, including TV food advertising targeting children, were investigated.

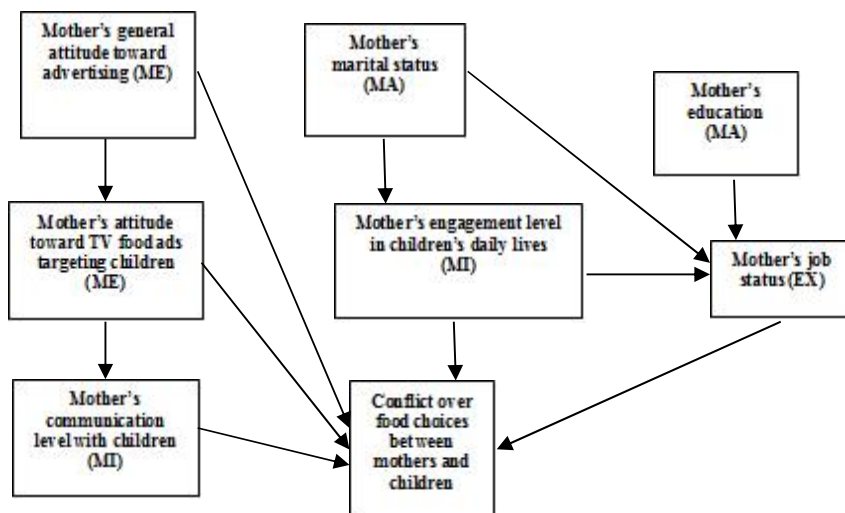
Figure 1 depicts the proposed model, which is based on the ecological theory of child development (Bronfenbrenner, 1979; 2001) framework.

The ecological theory of child development (Bronfenbrenner, 1979; 2001) is a major theoretical concept that accounts for macro- and microconnections between environmental factors surrounding children's development (Story *et al*, 2002; Warren, 2005). The basic premise of this theoretical framework is that shared social activities between children and knowledgeable others drive child development. For example, parents are a primary source of social interaction in most children's dominant social setting, the home. The four systems proposed by the theory each comprise specific environmental factors surrounding children. There is an assumption that children interact with each attribute within the four systems, and child development is the result of the interaction between system and child (Bronfenbrenner, 1979; 2001). However, in addition to the people to whom a child is exposed, diverse non-human environmental factors (i.e. parental employment status, school, education system, siblings, media exposure, household income, and relationships with friends) also influence child development.

According to the ecological theory of child development, it is characterized by levels of adult-child interaction within four established settings of social activity, or ecological niches, within micro-, meso-, exo-, and macrosystems (Bronfenbrenner, 1979; 2001). The microsystem comprises a set of niches in which children are directly and routinely involved such as home, school, peer groups, media systems, and demographic factors. The mesosystem consists of niches that influence child development without direct participation from the child. These settings include parental TV viewing styles, attitudes, and beliefs. The exosystem consists of niches that influence child development even less directly. For example, Bronfenbrenner (1979;

2001) identified parental employment status as a factor in the exosystem, with far-reaching implications for children. The macrosystem refers to cultural consistencies between the other niches and the ideologies underlying them. For example, the exosystem includes the structure of a society's educational system. As mentioned above, the media and media exposure are items of the microsystem, which is defined as patterns of activities, roles, and relationships within a particular social setting. Bronfenbrenner (1979; 2001) stated that the nature of media-child interactions was the primary focus of the theory. Both the frequency and quality of interactions are key components of the developmental process. The most important feature of the model is that it describes a wide variety of environmental factors concerning children and their parents (Story *et al.*, 2002). Therefore, via a highly comprehensive framework, the theory attempts to explain diverse conditions that influence parent-child interactions (Bronfenbrenner, 1979; 2001; Story *et al.*, 2002). The attributes of the ecological theory of child development can be used as an effective framework, providing insight into the specific conditions under which mother-child conflict over food choices occurs.

**Figure 1. Proposed model using the ecological model of child development**



\*MI: microsystem; ME: mesosystem; EX: exosystem; MA: macrosystem



### ***1.3 Hypotheses and Relationships between Variables***

Using the ecological theory of child development as a framework, this study suggested a model including diverse environmental factors, such as the influence of TV food advertisements targeting children and mother-child conflict over food choices. The model assumed that mother-child conflict regarding food choices was an influential process in child development, as the main idea of the ecological theory of child development (Bronfenbrenner, 1979; 2001) is that diverse environmental factors influence every aspect of children's development (Isler *et al.*, 1987; Story *et al.*, 2002; Buijzen and Valkenburg, 2003; Dens *et al.*, 2007). The model incorporated findings from a related study in which it was applied to examine the media's influence on family communication (*'Parental Mediation of Children's TV Viewing in Low-income Families'* by Warren, 2005). The relationships between the variables included in the model are outlined below.

### ***1.4 The Microsystem and Mother-Child Conflict over Food Choices***

In the proposed model (Figure 1), the extent of mothers' communication with their children and involvement in their children's daily lives were used as the microsystem factors. In several studies (Buijzen and Valkenburg, 2005; McDermott *et al.*, 2006; Norgaard and Brunso, 2011), lack of communication between mothers and children influenced the frequency of mother-child conflict over many family issues. Warren (2003; 2005) posited that consistent parent-child interaction not only influenced specific issues, such as children's TV viewing, but also improved overall parent-child relationships. In addition, other researchers reported that the frequency of parent-child conflict over food choices was influenced by the degree to which parents were available and involved in children's daily lives (Isler *et al.*, 1987; Buijzen and Valkenburg, 2003; Norgaard and Brunso, 2011).

Therefore, microsystem factors (i.e. extent of mother's communication with her children and extent of mother's involvement in her children's daily lives) could be hypothesized to be significantly associated with the frequency of mother-child conflict over food choices.

### ***HP 1***

**Microsystem factors (i.e. extent of mother's communication with her children and extent of mother's involvement in her children's lives) of the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence mother-child conflict over children's food choices.**

### ***1.5 The Mesosystem and Mother-Child Conflict over Food Choices***

Two of the specified mesosystem variables were selected: mother's attitude towards advertising in general and mother's attitude towards TV food advertisements targeting children. As investigating the possible influence of TV food advertising on parent-child conflict was one of the main goals of the study, these two factors were important variables. In several previous studies, parents with negative attitudes towards advertising were more likely to enforce stricter rules regarding TV viewing and exposure to TV advertising (Cantor *et al.*, 1996; Warren, 2005; Dens *et al.*, 2007). As children tend to ask their parents for products advertised on TV (Hise and Strawser, 1976; Sheffet, 1983; Alexander *et al.*, 1998; Smit *et al.*, 2006; Wang and Nelson, 2006; Norgaard and Brunso, 2011), two factors (mother's attitude towards advertising in general and mother's attitude towards TV food advertisements targeting children) were hypothesized to influence the frequency of mother-child conflict over food choices.

### ***HP2***

**Mesosystem factors (i.e. mother's attitude towards advertising in general and mother's attitude towards TV food advertisements targeting children) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

### ***1.6 The Exosystem and Mother-Child Conflict over Food Choices***

The proposed model (Figure 1) contained one exosystem factor: mother's employment status. Parental employment status (i.e. employed full-time, employed part-time, self-employed, and unemployed) has been shown to affect the amount of time that parents spend with their children (Buijzen and Valkenburg, 2005; Verropoulou and Joshi, 2009). However, although parents in full-time employment are expected to be able to spend as much time with their children as unemployed parents, this does not necessarily mean that they are more likely to argue with their children about food choices; however, as several studies have shown (e.g. Warren, 2005), parental employment status can be moderated by parent-child communication patterns. Longer working hours could influence parent-child communication, culminating in parent-child conflict. Therefore, the third hypothesis was that parental employment status would be associated with parent-child conflict over food choices.

#### ***HP 3***

**The specified exosystem factor (i.e. mother's employment status) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

### ***1.7 The Macrosystem and Mother-Child Conflict over Food Choices***

The study included two macrosystem factors in the proposed model: parental marital status (i.e. currently married, separated or divorced, widowed, and unmarried) and parental education (i.e. some high school, high school graduate, some college, college graduate, and postgraduate). In some studies, the presence of both parents increased a child's opportunity for parent-child communication (e.g. Yu and King, 2008; Choo and Shek, 2013). Indeed, husbands offer important support to mothers with respect to communication with their children regarding diverse issues (Pine and Nash, 2003). Furthermore, in today's society, fathers play an increasingly important role in several aspects of child development. First, the absolute amount of

time that a typical father spends with his children has increased substantially relative to that of fathers in the past (Flannery Quinn, 2006). According to a report published by the University of Maryland in the USA (2008), the amount of time that fathers spent with their children in 2006 was approximately 6.5 hours per week, which is more than double that of 30 years ago (Downs, 2008). Although fathers spend half as much time with their children as mothers do (13 hours per week), studies examining the father's role in the influence of advertising on children have become more popular than ever due to the increasing trend in paternal involvement (Marcus, 2006). In addition, this change in family structure could represent another important reason for increased interest in fathers in research examining family relationships. According to several reports, increases in dual-income households and single-father families have become more conspicuous (Downs, 2008).

In addition to these transformations in family structure, changes in fathers' attitudes towards their own roles in terms of the influence of media content on their children also deserve consideration (Downs, 2008; Choo and Shek, 2013). Coontz (2005) reported that fathers had become extremely interested in equal parenting with mothers and were likely to be involved in almost all aspects of children's daily lives, including eating habits, social circles, and the degree to which they were exposed to the media and advertising. In some studies, fathers expressed a wish to assist in mediating the influence of advertising messages on their children's lives, as their awareness of this influence had increased (Buijzen and Valkenburg, 2000; Choo and Shek, 2013). In another study, most fathers were eager to intervene to ensure that TV advertisements did not negatively influence their children, as they influence children's eating habits and susceptibility to obesity (Buijzen and Valkenburg, 2005). Based upon the research described above, mothers' marital status could influence the frequency of mother-child conflict over food

choices. With respect to parental education, some studies have reported a negative relationship between parent-child conflict and parental education levels (Buijzen and Valkenburg, 2005). Highly educated parents are generally considered to engage in more verbal means of interaction and mediation as opposed to employing a restrictive interaction style (Rossiter and Robertson, 1975; Corder-Bolz and Fellows, 1979). In contrast, less educated parents have generally been found to adopt a restrictive interaction style, which could lead to greater parent-child conflict (Dorr *et al.*, 1989; Nathanson, 1999; Yu and King, 2008; Verropoulou and Joshi, 2009).

#### ***HP 4***

**Macrosystem factors (i.e. mother's marital status and mother's education) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

## **2. Method**

### ***2.1 Sampling***

In order to maximize the representativeness of the sample, a special effort was made to follow the rules recommended by numerous researchers to ensure that the sampling process was effective and scientific (Hair *et al.*, 1998). In studies concerned with ideal sampling, which increases the possibility that a sample represents the wider population, a scientific sample structure provided diverse and important information regarding the issues faced in research (Hair *et al.*, 1998). In this study, a purposive convenience sample of mothers with children aged between seven and twelve years was recruited, based upon insights gleaned from related studies (Halford *et al.*, 2004). Children aged between seven and twelve years are studied most frequently in research concerning children and the media (Hitchings and Moynihan, 1998; Halford *et al.*, 2004). Relative to older children, children younger than six years of age have generally been found to be less able to understand the content of advertising, due to limited cognitive abilities (Oates *et al.*, 2003; Mallalieu *et al.*, 2005), whilst adolescents (aged 13–18) are typically

considered to be at a different developmental stage compared to that of younger children (Khatibi *et al.*, 2004). Children aged between seven and twelve years typically understand the content of TV programs and advertising. In addition, this advertisement content has been shown to influence children's future actions and influence food preferences in this age group (Oates *et al.*, 2003; Zuppa *et al.*, 2003). Therefore, mothers of seven- to twelve-year old children were considered ideal participants for this study.

Attempts were made to ensure ethnic and socioeconomic diversity in the study sample. Whilst distributing the surveys, confirmation that potential participants were mothers of at least one child within the target age range (seven to twelve years) was obtained. Participant recruitment was aimed at mothers who were members of parent teacher organizations (PTOs) in middle and high schools located in a city in the southeastern United States. The survey was conducted between 11 and 25 November 2013. A minimum of 300 completed surveys was required to ensure rigorous statistical analysis. Respondents or the groups to which they belonged (i.e. PTOs) were paid \$5 (approximately £3.28) for each completed survey that was returned. In addition to descriptive statistics, a path analysis was performed to explore the relationships between the following variables: mother-child conflict over children's food choices, influence of TV food advertisements, and diverse environmental factors from the four systems of the ecological theory of child development, which have previously been used to investigate related issues, such as individual influences on adolescent's eating behaviours (Story *et al.*, 2002).

## ***2.2 Development of the Survey Instrument***

In addition to the basic characteristics of the mothers and their families (e.g. mothers' opinions regarding the significance of religious beliefs, education, marital status, and

employment status), mothers' attitudes towards the main factors in the study (i.e. mothers' attitudes towards advertising in general and TV food advertisements targeting children, the extent of mothers' communication with their children and involvement in their children's daily lives, and the frequency of mother-child conflict over food choices) were also assessed via questionnaires, which had been validated by several researchers, as described below. A questionnaire consisting of items concerning mothers' views and opinions regarding advertising in general and the effects of TV advertising (Pollay and Mittal, 1993; Nan, 2006) was used to determine mothers' attitudes towards advertising in general (Table 1). In addition, a questionnaire developed by Young, *et al.*, (2003) was used to assess mothers' opinions regarding the negative effects of TV food advertisements on their children and mother-child relationships (Table 2). The extent of mothers' involvement in children's media usage and daily lives was measured using a questionnaire developed to determine advertising mediation and consumer communication typology (Buijzen and Valkenburg, 2005; Table 3).

**Table 1. Attitudes towards Advertising in General**

| Items   |
|---|
| Advertising is essential.   |
| Advertising is a valuable source of information regarding sales.  |
| In general, advertising is misleading.  |
| Quite often, advertising is amusing and entertaining.   |
| Advertising persuades people to buy things that they should not buy.                                    |
| Most advertising insults the intelligence of the average consumer.                                      |
| Advertising teaches me about fashion and what to buy to impress others.                                 |
| Advertising helps to raise our standard of living.  |
| Advertising results in better products for the public.  |
| Advertising informs me of what people with lifestyles similar to mine are buying and using.             |
| Advertising is making us a materialistic society that is overly interested in buying and owning things. |
| Advertising tells me which brands have the features I am looking for.                                   |
| Advertising promotes undesirable values in our society.   |
| Sometimes, I take pleasure in thinking about what I saw, heard, or read in an advertisement.            |
| Advertising makes people buy unaffordable products just to show off.                                    |
| In general, advertising results in lower prices.  |
| Advertising helps me to understand which products will or will not reflect the sort of person I am.     |
| In general, advertisements present a true picture of the product advertised.                            |

Sometimes advertisements are even more enjoyable than other media content.  
 In general, advertising helps our nation's economy.  
 Most advertising distorts the values of our young people.  
 Advertising helps me to keep up to date with the products/services available in the marketplace.  
 Advertising is mainly a waste of economic resources.  
 Overall, I consider advertising a good thing.  
 Advertising makes people live in a world of fantasy.  
 There is too much sex in advertising today.  
 Because of advertising, people buy a lot of things that they do not really need.  
 My general opinion of advertising is unfavourable.  
 In general, advertising promotes competition, which benefits the consumer.  
 Some products/services promoted in advertising are bad for our society.

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**Table 2. Attitudes towards Food Advertising Targeting Children**

| Items  |
|--|
| Food advertisements on television are an important cause of unhealthy eating habits.               |
| Television advertising results in my children pestering me for advertised products.                |
| Television advertising encourages my children to want products they don't need.                    |
| Television advertising that targets children leads to family conflict.                             |
| Television advertising that targets children uses tricks and gimmicks.                             |
| There are too many advertisements shown during television programs directed at children.           |
| There is too much sugar and fat in food products advertised during children's television programs. |
| There are too many additives in food products advertised during children's television programs.    |
| Children are able to distinguish between programs and advertising.                                 |
| Children understand the commercial intent of advertising.  |
| Advertisements provide information regarding available products.                                   |
| Advertisements encourage family discussion about products.   |



**Table 3. Advertising Mediation and Consumer Communication**

| Items   |
|---|
| <b>How often do you tell your child...</b>  |
| that advertising depicts products as better than they really are?   |
| that advertising does not always tell the truth?  |
| that the purpose of advertising is to sell products?  |
| that not all advertised products are of good quality?   |
| that some advertised products are not good for children?  |
| to turn off the television when (s)he is watching commercials?  |
| that (s)he should not watch commercial networks, because they broadcast too many commercials?               |
| to switch to a channel that broadcasts fewer commercials?   |
| that (s)he should not watch television advertisements at all?   |
| to watch specific networks that broadcast relatively few commercials?                                       |
| that every member of your family should have some say in family purchase decisions?                         |
| to give his/her opinion when discussing family purchases?to give his/her opinion about products and brands? |
| that you respect his/her expertise with respect to certain products and brands?                             |
| that you consider his/her preferences when making a purchase?   |
| to consider the advantages and disadvantages of products and brands?  |
| that (s)he can be involved in decisions when you make purchases for him/her?                                |
| that you know which products are best for him/her?  |
| not to argue with you when you refuse their product requests?   |
| that you expect him/her to accept your decisions about product purchases?                                   |
| which products are or are not purchased for the family?   |
| which products (s)he should or should not buy?  |
| that you have strict and clear rules when it comes to product purchases?                                    |
| that (s)he is not allowed to ask for products?  |

The other two factors, mother-child conflict over food choices and the extent of mothers' communication with their children, were measured using several critical questions (Tables 4 & 5). As mentioned above, when the survey was distributed, participants were informed that the term 'conflict' referred to mother-child conflict over children's food choices. Conflict frequency was measured using the questions shown in Table 4. The mothers who answered 'Yes' to the first question were instructed to answer the subsequent questions, whilst those who answered 'No' were instructed to ignore the entire section.

**Table 4. Questions Regarding Mother-Child Conflict over Food Choices**

| <b>Items</b>  |
|---|
| Have you ever experienced any type of disagreement with your child over his/her request to buy a particular product?  |
| Approximately how many times within the last year would you say you have experienced a disagreement with your child over a request to buy a particular product?   |
| Has there ever been any type of disagreement with your child over a request to buy a food product?  |
| If yes, approximately how many times within the last year would you say you have experienced a disagreement with your child over a request to buy a food product? |

To determine the extent of mothers' communication with their children, we used the ten statements shown in Table 5, which were developed for a previous study via 12 in-depth interviews with mothers regarding their communication with their children and demonstrated acceptable reliability (Yu and King, 2008).

**Table 5. Statements Pertaining to the Extent of Mothers' Communication with their Children**

| <b>Items</b>  |
|---|
| There are many interactions within my family.   |
| Generally, my child watches television with me.   |
| I am very involved in the parent teacher organization at my child's school.   |
| I think that my child and I communicate very well.  |
| I know the teachers in my child's school very well.   |
| I spend a lot of time helping my child to study or complete homework.   |
| I know who my child's friends are.  |
| I talk to my child about different aspects of advertising such as the purpose of advertisements and tricks used in advertising. |
| I talk to my child a lot when I am with him or her.   |
| I talk to my child about his/her report cards from school.  |

### **3. Results**

A total of 655 surveys were distributed to qualified participants (mothers of at least one child aged between seven and twelve years), and 329 completed surveys were returned (response rate: 50.2%). Data were collected using two methods: 1) surveys were distributed, completed, and returned to the researcher during a PTO meeting attended by potential participants, and 2) surveys were issued to PTO group leaders, who distributed them to potential participants; they

were completed and collected by the researcher 24 hours later. Although 329 surveys were collected, 11 were excluded from the data analysis, as more than two sections were unanswered. Therefore, a total of 318 completed surveys were included in the analysis (adjusted response rate: 48.5%).

### ***3.1 Participant Characteristics***

Participants' mean age was 39.7 years. The youngest and oldest mothers were aged 24 and 60 years, respectively (the author confirmed that the latter was a mother rather than grandmother). In terms of race, 72% (227) of the participants were White, 18% were African American, and 10% were Asian, Latino, or of another race (e.g. mixed race). Most participants were married (74.4%), approximately 49.7% were in full-time employment, and 63% (201) held a bachelor's degree or higher.

Regarding income, 88 (27.6%) and 69 (21.7%) participants reported gross annual household incomes of less than \$40,000 (approximately £26,000) and more than \$100,000 (approximately £65,000), respectively. In addition, 55.6% of participants reported that they were strongly religiously observant (i.e. religious beliefs were very significant in their lives), and 44.4% reported that weak religious beliefs. There were similar numbers of children in most age groups (each age group consisted of children of each year in age between seven and twelve years). The largest group consisted of 10 year olds (21%, 66 children), and the smallest group consisted of 8 year olds (12.4%, 39 children). Mothers of boys were more prevalent (59.7%, 187 children) in the sample relative to those of girls (40.2%, 126 children), and 83.2% lived with more than one child.

### ***3.2 Results According to the Hypotheses***

To test the proposed model, a path analysis was conducted using the frequency of

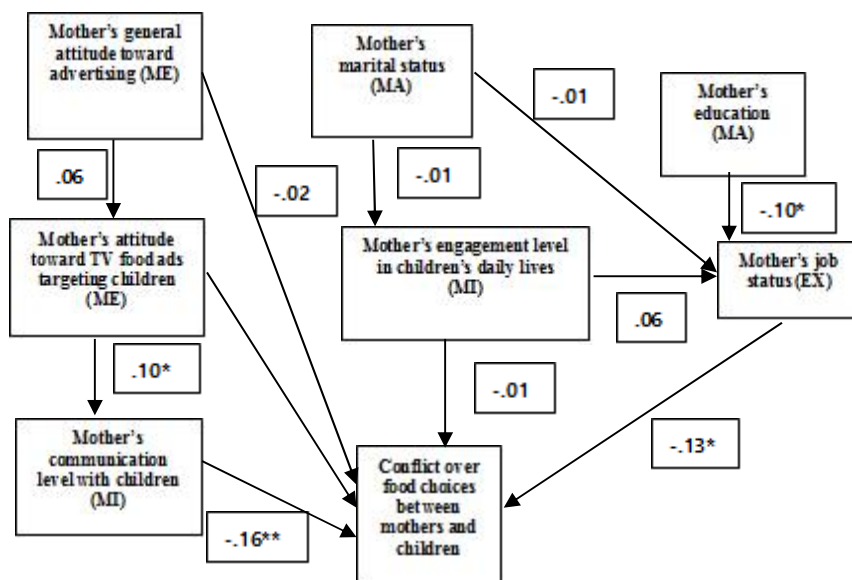
mother-child conflict over food choices as an endogenous variable. Due to the fact that the participants had somewhat homogeneous demographic profiles, the distribution of the exogenous variables in the model was skewed. Therefore, their natural logarithms were used in the path analysis, which was conducted via structural equation-modelling using Amos version (SPSS Inc., Chicago, IL, USA). The proposed model (Figure 1) was a good fit for the prediction of the frequency of mother-child conflict over food choices ( $df = 17, p = .00$ , comparative fit index = .00). However, not all predicted paths of influence were as expected. The results for each hypothesis are summarized and depicted below (Figure 2).

#### ***HP 1***

**Microsystem factors (i.e. extent of mother's communication with her children and extent of mother's involvement in children's lives) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence mother-child conflict over children's food choices.**

The proposed model contained two environmental factors from the microsystem: extent of mother's communication with her children and extent of mother's involvement in her children's daily lives (i.e. children's media usage and several other aspects of their lives). As shown in Figure 2, the microsystem variables did not significantly influence the exogenous variable, which was the frequency of mother-child conflict over children's food choices (Figure 2). Therefore, the first hypothesis was not supported.

**Figure 2. Path Analysis of the Relationships between Environmental Factors, Including the Influences of TV Food Advertising and Mother-Child Conflict over Food Choices**



\* $p < .05$ , \*\* $p < .01$

MI: microsystem; ME: mesosystem; EX: exosystem; MA: macrosystem

## HP 2

**Mesosystem factors (i.e. mother's attitude towards advertising in general and mother's attitude towards TV food advertising targeting children) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

Two environmental factors from the mesosystem were included in the proposed model and hypothesized to be significantly associated with the frequency of mother-child conflict over food choices. Some of the paths from the two variables (i.e. mother's attitude towards advertising in general and mother's attitude towards TV food advertising targeting children) indicated that they significantly influenced some variables (Figure 2). Mother's attitude towards TV food advertising targeting children significantly influenced the frequency of mother-child conflict over food choices. The influence of this variable on the extent of mothers' involvement

in their children's daily lives was also significant. However, mother's attitude towards advertising in general was unrelated to the exogenous variable, mother's attitude towards TV food advertising targeting children, and did not exert a significant influence on the frequency of mother-child conflict over food choices. Therefore, the second hypothesis was partially supported.

### ***HP 3***

**The exosystem factor (i.e. mother's employment status) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

One environmental factor from the exosystem was included in the proposed model: mother's employment status. As shown in Figure 2, the effect of mother's employment status on the frequency of mother-child conflict over food choices was statistically significant. However, this variable did not significantly influence the extent of mothers' involvement in their children's daily lives. Therefore, the third hypothesis was partially supported.

### ***HP 4***

**Macrosystem factors (i.e. mother's marital status and mother's education) from the ecological model of child development (Bronfenbrenner, 1979; 2001) would influence the frequency of mother-child conflict over children's food choices.**

The macrosystem factors used in this proposed model were mother's education level and mother's marital status. Mother's education level significantly influenced the exogenous variable, mother's employment status (Figure 2). However, the other paths from the two variables did not show any significant relationships with other variables. Therefore, the fourth hypothesis was partially supported.

## 4. Discussion

### ***4.1 Parents' Attitude towards Advertising was the Most Critical Factor in Parent-Child Conflict: Parental Mediation is Necessary***

As shown in Figure 2, the most important factor influencing parent-child conflict over children's food choices was mother's attitude towards TV food advertising aimed at children. In particular, the likelihood of mother-child conflict over food choices rose as the negativity of mothers' attitudes increased. Therefore, mothers with more negative attitudes towards advertising generally attempted to convince their children not to consume products advertised on TV.

To reduce or prevent such conflict, mothers should allocate some of the time spent with their children to advertisement mediation. In several studies, parents' advertisement mediation was shown to help children to understand advertisement content more clearly and improved overall parent-child relationships (Dorr *et al.*, 1989; Buijzen and Valkenburg, 2005; Newman and Oates, 2014; Oprea *et al.*, 2014). During parents' advertisement mediation, children have the opportunity to learn about several aspects of the field, such as the nature and main goal of advertising and the difference between regular TV programs and advertisements (Bijmolt and Claassen, 1998; Robinson *et al.*, 2001; Yu and King, 2008; Norgaard and Brunso, 2011). Children could learn how to evaluate advertisements more critically and become wiser consumers via parental mediation. Therefore, advertisement mediation may reduce the incidence of parent-child conflict over several issues including children's food choices (Moschis, 1985; John, 1999; Buijzen and Valkenburg, 2005; Norgaard and Brunso, 2011).

These findings indicate that marketers and advertisers of foods targeting children should endeavour to improve mothers' perceptions of their products and marketing tools, including TV

advertisements, to facilitate commercial success (Owen *et al.*, 2013; Yu, 2011). Although the images food companies portray to children are important, parents' perceptions could be more important, as they decide what their children eat (Anderson *et al.*, 2008; Newman and Oates 2014). Food companies make an effort to improve their images via practices including adding 'healthy' options to their product lines (e.g. fast-food companies' salad products) and arranging promotions to spread health-friendly philosophies, in the belief that this will maintain positive attitudes (Young *et al.*, 2003) and change negative attitudes that parents hold towards them (Yu, 2011). Long-term plans to improve the perceptions held by mothers, who are children's main caregivers, should be considered and implemented to facilitate successful marketing (Warren 2005). For example, a specific tactic used by food companies to accomplish this purpose is to demonstrate corporate social responsibility (Maloni and Brown 2006; Dorfman *et al.*, 2012; Moodie *et al.*, 2013).

The findings of this study indicate that many mothers have negative attitudes towards TV food advertisements that target children and typically argue with their children over food choices when their children ask them for products advertised on TV (Mittal *et al.*, 2010). Several studies have shown that many food advertisements strategically target children (Stitt and Kunkel, 2008; Huang and Yang, 2013; Spielvogel and Terlutter, 2013). Evidence suggests that approximately half of the advertisements targeting children promote food products, are shown during children's peak viewing times, and primarily promote unhealthy food such as candy, soft drinks, chips, and cookies (Harrison and Marske, 2005; Warren *et al.*, 2008; Spielvogel and Terlutter 2013). In addition, fast-food restaurant advertising has been found to be prevalent during children's programming, comprising approximately 11% of all advertisements (Yu and King, 2009).

In many other studies, most parents were unhappy about the content of food advertising



that targets children (Mallalieu *et al.*, 2005; Yu, 2011), and their opinions regarding cartoon characters and animation in TV food advertising were very negative (Robinson and Anderson, 2006), as they believed that food companies were taking advantage of children's naivety (Yu and King, 2008; Yu, 2011). In other words, mothers believed that advertisers and food companies include such content in their advertisements because they know that children will ask their parents for products because of images used in advertisements, such as those of cartoon characters, rather than logical factors such as healthy ingredients or monetary value (Burr and Burr, 1976; Young *et al.*, 2003; Dens *et al.*, 2007; Spielvogel and Terlutter, 2013). Some parents have reported that they considered food companies' marketing strategies unethical, as they regard children as mere money-making tools (Hawkes, 2005; Yu and King, 2008).

As food products are items for which the opinions of the buyer and user may differ (e.g. buyers: mothers, users: children), food companies should endeavour to create advertisements that appeal to mothers, who appear to hold negative attitudes towards them. Food companies could engender positive parental perceptions of food products via messages that create more positive images, such as those that emphasize healthy ingredients, children's nutrition, and child welfare, to improve their marketing success.

#### ***4.2 Effect of Advertising on Children***

Although some paths from advertising-related variables (i.e. mother's attitude towards advertising in general and mother's attitude towards TV food advertising targeting children) did not significantly influence the frequency of mother-child conflict over food choices, the results indicated that several environmental variables were significantly associated with conflict frequency when certain advertising factors were included as moderating variables. Therefore, this study offered an opportunity to examine the diverse relationships between mother-child conflict over children's food choices, mother's attitudes towards advertising in general and TV

food advertising targeting children, and several environmental factors.

Some researchers have attempted to use multiple environmental factors, instead of one single variable, to investigate the influence of advertising on children (e.g. Corder-Bolz and Fellows, 1979; Carlson and Grossbart, 1988; Campaign for a Commercial-Free Childhood, 2007; Dens *et al.*, 2007; Oprea *et al.*, 2014). Several studies have examined relationships between children's understanding of TV advertisement messages and several environmental factors, such as parental characteristics (Bijmolt and Claassen, 1998; Rozendaal *et al.*, 2011), and found that parents' time at home and interaction with their children were related to children's understanding of advertisements. Watching TV advertisements with family members may also influence children's perception and understanding of TV advertisements (e.g. Ward *et al.*, 1976; Dens *et al.*, 2007). Reid (1979) examined the relationship between family group interaction and children's understanding of TV advertising, using personal interviews and observations, and found that interaction regarding consumer behaviour and purchasing practices influenced this understanding.

Some studies have examined family members' influence on the formation of children's attitudes towards TV advertising. Brown and Linne (1976) considered the family unit a crucial mediator in the influence of advertising on children. The specific rules that parents enforce regarding children's TV advertisement exposure have also been shown to be a significant factor in children's responses to advertisements (Reid 1979).

Although not specifically concerned with TV advertising, Warren's (2005) study found that various family characteristics significantly influenced the media's effect on children. He examined the relationships between the parents' mediation of TV viewing and environmental factors surrounding children, including the time parents spent at home and parental engagement,

TV viewing patterns, and attitudes towards TV, and found that several environmental factors significantly influenced parents' mediation styles, and different types of mediation (i.e. restrictive, co-viewing, and instructive) were influenced by environmental factors.

This study provided another rationale for including diverse environmental factors when examining the influence of advertising on children. Whilst some factors did not significantly influence the effects of advertising on children, the results contribute to a more comprehensive understanding of the relationships (e.g. moderating or mediating roles) between variables pertaining to children, their media usage, and diverse issues within the family unit.

#### ***4.3 Limitations and Suggestions***

The present study included seven environmental factors from the ecological model of child development (Bronfenbrenner 1979; 2001), which have been examined in several previous studies including Warren's (2005) research examining the effects of TV programs on children. Whilst these factors were the main variables in mother-child conflict over food choices, there were several other potential factors, such as presence of siblings, parental health-related behaviour and attitudes towards food, and the instruction provided in schools, likely to influence this type of conflict. Therefore, as relationships between some environmental factors and mother-child conflict were clear, more diverse factors, including family members' characteristics, should be examined in the future. Some environmental factors, such as culture, have already been studied. Cultural difference has been used to examine different aspects of parenting styles (Bocock and Scott, 2005; Pugh, 2009; Livingstone and Bovill, 2013) and parent-child conflict (Choi *et al.*, 2008; Dixon *et al.*, 2008; Laursen *et al.*, 2008). A cross-cultural approach exploring similarities and differences in diverse characteristics, including conflict, found in parent-child relationships (Choi *et al.*, 2008; Dixon *et al.*, 2008; Laursen *et al.*, 2008) could also be important.

As there were some significant relationships between the variables that were not the main focus of the study (e.g. mother's education level and mother's employment status), it would be worthwhile to consider investigating relationships between other environmental factors in the ecological model (micro-, meso-, exo-, and macrosystem) in future studies. For example, the relationship between parents' education and employment status, which was clear in this study, has been demonstrated in previous studies (Blundell *et al.*, 2013; McMunn *et al.*, 2011; Krishnakumar and Sarti, 2014; Carrol, 2013; Robinson, 2002). However, as this relationship has not been examined in the contexts of children's media consumption or the effect of exposure to advertising on children's health, it should be studied alongside additional variables that have not been used frequently in the future.

In addition to environmental factors, subtopics involving advertising-related issues, such as children's understanding of advertisement content, parental attitudes towards the cartoon characters in TV food advertising, and other family members' attitudes towards advertising, could be explored. Future studies should also include a more diverse sample. Several fathers reported spending more time with their children than mothers did, and some claimed that they were their children's primary caregivers. However, this study only examined mothers' opinions regarding the influence of TV food advertising on children and mother-child conflict. In fact, fathers are least likely to be recruited to studies examining the influence of advertising on children (Pine and Nash 2003; Mammen 2011). This is because mothers are considered more important than fathers in mediating the influence of advertising on children (e.g. Robinson, 1999) and fathers are generally perceived to spend less time with their children than mothers or other family members do (Downs, 2008). Therefore, fathers' importance in these issues has rarely been studied (Mammen, 2011; Flannery Quinn, 2006).

However, the need for research examining the role of fathers in mediating the influence of the media on children has been expressed, particularly quite recently (Marcus, 2006; Downs, 2008; Mammen, 2011). Researchers have suggested several reasons for investigating fathers' characteristics and their role in mediating the influence of advertising on children. First, the amount of time that typical fathers spend with their children is substantially greater than that of fathers in previous generations (Flannery Quinn, 2006; Coskuner-Balli and Thompson, 2013). In a report published by the University of Maryland, fathers spent approximately 6.5 hours per week with their children in 2006, which is more than double that of 30 years ago (Downs, 2008). Whilst fathers spend half as much time with their children as mothers do (13 hours per week), this increase in paternal involvement presents a strong argument for examining fathers' role in mediating the influence of advertising on children (Mammen, 2011; Marcus, 2006). Changes in family structure are another reason for expanding the focus of advertising research to include fathers. According to several reports, the increase in dual-income households and single-father families has become more conspicuous than ever (Downs, 2008). With this increase in single-father families, investigating the mother's role in mediating the influence of advertising on children is less meaningful (Pine *et al.*, 2007).

Further, the recent changes in fathers' perspectives on their role in mediating the influence of media content on their children should also be considered (Brooks *et al.*, 1998; Downs, 2008; Mammen, 2011). Coontz (2005) found that fathers were extremely interested in equal parenting and consequently likely to be involved in almost all aspects of children's daily lives, including their eating habits, circles of friends, and the degree to which they were influenced by the media and advertising. In some studies, fathers have reported having become more aware of the influence of TV advertising on their children's lives and expressed a wish to

assist in mediating these effects (Buijzen and Valkenburg, 2000). In another study, most fathers were eager to intervene with respect to TV food advertisements, as they influence children's eating habits and susceptibility to obesity (Buijzen and Valkenburg, 2005). Therefore, future studies should examine fathers' roles and perceptions regarding issues surrounding the effect of advertising on children. Several important factors that were related to the present topic were not included in the study: parental eating habits, income levels, overall attitudes towards TV, and the quality of their relationships with their children. Finally, the influence of peers should also be considered in future studies, as the influence of TV could be reinforced via peer-peer interaction.

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