South African parents' perception of television food advertising directed at children

A. A. F. C. Da Fonseca
21405506

Mini-dissertation submitted in partial fulfilment of the requirements for the degree ***Masters in Business Administration*** at the Potchefstroom campus of the North-West University

Supervisor: Prof. C.A. Bisschoff
November 2010

ABSTRACT

Advertising to children has received regular focus since 1961, yet it remains a controversial topic. When people speak about advertising to children, they are frequently discussing food advertising. Recent concerns about food, nutrition and an increase in childhood obesity have resulted in a resurgence of interest towards advertising to children. Many factors contribute to the rise in childhood obesity; and advertising of unhealthy food to children has been recognised as one such factor.

Advertising to children is fraught with ethical concerns. Children are considered to be vulnerable and susceptible to the influence of television advertising, since they do not possess the cognitive ability to comprehend or evaluate the advertisements they enjoy watching. Although there is ample research regarding the advertising of food to children, research on how parents perceive the impact of television food advertising on their children's food preferences, as well as the overall level of parental concern with regard to this issue is limited.

This study, aimed at exploring South African parents' perceptions of television food advertising to children, is in context of the widespread concern about TV food advertising, the increasing incident of obesity among children and a number of initiatives in other countries to limit children's exposure to food advertising.

A literature review was undertaken, which gave rise to the identification of the problem statement and objectives. Following the literature review, an empirical study was conducted with the aid of a questionnaire, as measuring instrument, to identify parents' perceptions of TV food advertising to children, in particular, parents with children aged between 3 and 14 years. The empirical study was conducted at a crèche in Vanderbijlpark, South Africa.

The empirical research conducted for this study revealed that parents perceive it to be unacceptable for food to be advertised to children during their TV-viewing hours, in particular unhealthy food, and that advertising does influence their children's food

preferences and eating habits. Parents believe that although regulations exist, these are ineffective in protecting children against advertisers. Furthermore, although parents are not in favour of banning all food advertising to children, they would like to see a reduction of food advertising to children and stronger restrictions being applied to TV food advertising during children's viewing hours.

As an outcome of the parents being exposed to the survey questionnaire, their awareness to the topic will be a lot greater than before. It would be interesting to see if those parents' perceptions have changed as a result of the heightened awareness and therefore it is recommended that the survey be repeated on the same parents within the next year.

Furthermore, since the results obtained from this study is a representation of the perceptions of the parents from the geographical area of Vanderbijlpark, South Africa; it is recommended that this survey be conducted in other geographical areas around South Africa.

Keywords: obesity, TV food advertising, parents' perceptions, South Africa

ACKNOWLEDGEMENTS

Our Lord, for the boundless grace and the strength to accomplish the seemingly impossible.

My wife Susan, without her continued love and support, none of my achievements would have been possible.

To my children, Jennifer and Matthew, for understanding that I couldn't spend as much time playing with them as I would have wanted to.

My parents, who taught me the value of working hard, and for their belief in me.

My study leader, Prof. C.A. Bisschoff, for his guidance, valued input and support.

All my friends, for their support and encouragement throughout this program.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ASA:	Advertising Standards Authority (South Africa)
ASAS:	Advertising Standards Authority of Singapore
ASC:	Advertising Standards Canada
BMI:	Body mass index
CARU:	Children's Advertising Review Unit
CASE:	Consumer's Association of Singapore
CGCSA:	Consumer Goods Council of South Africa
EU:	European Union
FSA:	Foods Standards Agency
FTC:	Federal Trade Commission
HFSS:	High fat, sugar and salt
ICC:	International Chamber of Commerce
IOM:	Institute of Medicine
IOTF:	International Obesity task Force
NARC:	National Advertising Review Council
Ofcom:	Office of Communication (UK)
SA:	South Africa
SRO:	Self-regulatory organisation
TV:	Television

UK: United Kingdom

USA: United States of America

US: United States (short for United States of America)

WHO: World Health Organization

CHAPTER 1: NATURE AND SCOPE OF STUDY

1.1 INTRODUCTION

Concerns about food, nutrition and an increasing occurrence of obesity amongst children worldwide; have resulted in increasing public, political and academic attention. Although various factors are identified as possible causes for the growth of childhood obesity, including changes in leisure activities and nutrition knowledge, one factor continues to dominate the debate: television food advertising aimed at children (Anon., 2007:2).

Critics hold food advertising responsible for the increase in childhood obesity because of its abundant promotion of energy-dense food; that is, products containing relatively high proportions of fat, sugar and salt. Concerns about the possible effects of food advertising have been fuelled by empirical evidence that children's exposure to advertising may indeed affect their consumption patterns (Buijzen, 2009:105).

Research has shown that marketers are attracted to the child market because of their strong influence on family buying decisions, and it offers marketers the opportunity to gain "*a customer for life*". It was found that children significantly influence family buying decisions, even when it comes to where the family take their holidays and what cars or cell phones they buy. As a result, marketers of cars, cell phones and travel destinations are now placing adverts on child-oriented TV networks like Nickelodeon (Kotler & Armstrong, 2009:170). Children's influence is so strong that the term "pester power" is now commonly used to describe the established ability of children to influence parent's purchasing choices (Radcliffe & Ashton, 2003:269).

The desire of companies wanting to capitalise on the influence that children have over the family's buying decisions has resulted in some companies going to extreme measures to gain insight into how to hone their message and advertising campaigns. According to Zoll (2000:2), some American advertising and market research firms

have gone so far as to pay child psychologists to share their expertise with them, helping them to tailor successful strategies that will reach America's youngest consumer group and their parents.

Children are considered vulnerable and susceptible to the influence of television advertising, since they are seen not having the skills and experience required to process advertising messages in the context of their reality and needs (Kapoor & Verma, 2005:22). Critics worry that products and services presented through the mouths of lovable animated characters will overwhelm children's defences (Kotler & Armstrong, 2009:232). Due to children's vulnerability, ethical concerns have been raised about the advertising of food to children.

The international code of commerce states that because children are vulnerable, their inexperience should not be exploited (Truman, 2004:23). A number of countries have taken this threat on children seriously, imposing strict restrictions on advertising to children or putting a complete stop to it. In the United Kingdom (UK) and the Netherlands, for instance, they have recently introduced policies restricting the amount, nutritional claims and marketing techniques used in food advertising; while Australia is considering a complete ban on food advertising to children (Buijzen, 2009:105-106).

Even though children are able to influence family purchasing decisions, parents are still the primary gatekeepers to children's food intake and the ones making the final purchasing decision (Buijzen, 2009:106). There is ample research regarding the advertising of food to children; however, research on how parents perceive the impact of television food advertising on their children's food preferences as well as the overall level of parental concern with regard to this issue, is limited (Ip *et al*., 2007:50-51).

A review of current literature or secondary data provides the basis for defining the research problems and objectives, while a research questionnaire was used as measuring instrument for the collection of primary data. An adaptation of the

questionnaires developed by Morley (2007:5-14), the PEAK GROUP (2007:8-49) and Eagle *et al*. (2002:19-21), together with frequently voiced criticism identified in the literature regarding advertising to children, was used in the design of the questionnaire.

The primary objective of this study was to establish parents' perceptions towards television food advertising directed at children; in particular, parents with children aged between 3 and 14 years.

1.2 PROBLEM STATEMENT

Overweight and obesity in children and adolescents is a major concern given they are at increased risk of becoming obese adults and therefore at risk of associated chronic diseases such as Type 2 diabetes, cardiovascular disease and some cancers (Morley, 2007:2).

South Africa's public health issues include under and over nutrition, falling life expectancies and rising prevalence of Type 2 diabetes. Where children are concerned, obesity concerns continue to grow (Anon., 2009a).

Television viewing has been suggested as a contributing factor to obesity in children through association with reduced participation in physical activity (Ip *et al*., 2007:50). Hastings *et al.* (2006:19) conducted a review in 2003 of available literature on advertising and obesity to test the relationship between advertising to children and obesity. Based on this research, Hastings *et al.* reported qualified findings that advertising to children does in fact have an adverse effect on food preferences, purchasing behaviour and consumption.

A public opinion poll conducted by the Children's Society in the UK and published as part of its ongoing *Good Childhood Inquiry*, shows that adults agree that increasing commercialisation is damaging children's wellbeing. Advertising to children is viewed

as ruthless and exploitative and that they should not be viewed as small consumers, particularly younger children with “impressionable minds” (Anon., 2008:5).

Surveys conducted in Australia (Ip *et al*., 2007:50-58) and New Zealand (PEAK GROUP, 2007:1-49) have indicated similar patterns of concern and support for stronger regulation regarding food advertising to children. Parents in those countries perceive that food advertising impacts negatively on their children’s food preferences and choices. Furthermore, they suggested that their regulations were inadequate in protecting children from the advertising of unhealthy foods and the range of methods used by advertisers to market these products to children.

This study, aimed at exploring South African parents’ perceptions of television food advertising to children, is in context of the widespread concern about TV food advertising, the increasing incident of obesity among children and a number of initiatives in other countries to limit children’s exposure to food advertising.

1.3 OBJECTIVES OF THE STUDY

1.3.1 Primary objective

The primary objective of this study was to establish parent’s perceptions towards television food advertising directed at children; in particular, parents with children aged between 3 and 14 years.

1.3.2 Secondary objectives

The study also aimed to achieve a number of secondary objectives, namely to:

- establish if parents perceive it acceptable for food to be advertised to children, at times when children watch television;
- establish if parents perceive that television food advertising influences children's food preferences and eating habits; and to
- establish parents' perception of South African regulations regarding the advertising of food to children and if these are seen as satisfactory in protecting the children of South Africa.

1.4 RESEARCH METHODOLOGY

This research was conducted in two parts. A literature review was completed on the topic of advertising to children, with specific emphasis on television food advertising. This was followed by an empirical study conducted at a crèche in Vanderbijlpark, South Africa.

1.4.1. Literature review

A review of available literature was completed to gain an understanding of the concerns, implications and perceptions regarding food advertising to children; the actions take by other countries and South Africa's legislative stance with regard to advertising to children. Various publications, such as text books, journals, conference papers, research publications and articles obtained from the North-West University library, academic databases and the internet, were consulted during the completion of the literature review.

1.4.2. Empirical research

Empirical research was conducted by means of a structured questionnaire. The study population were the parents of children at Tjokkerland crèche in Vanderbijlpark, South Africa. Furthermore, the survey was confined to parents with children aged 3 to 14 years, and availability sampling was the chosen sampling method for this study. The survey questionnaires were administered by hand with the assistance of the teachers at the crèche.

1.4.2.1. Development of survey questionnaire

Questionnaires developed by Morley (2007:5-14), PEAK GROUP (2007:8-49) and Eagle *et al*. (2002:19-21) were adapted and frequently voiced criticism identified in the literature on advertising to children, was used to develop the survey questionnaire.

The questionnaire was designed to measure various elements pertaining to the advertising of food to children, in particular TV food advertising. Fifteen constructs were identified and within these, a number of items were identified to test the construct. For the purpose of analysis related to this study, a 4-point Likert scale is used to evaluate the parents' perceptions.

1.4.2.2. Data gathering and analysis

Data was gathered with the assistance of the teachers at the crèche. Availability sampling was chosen as the sampling method for this study and the survey questionnaires were given to the parents by hand and collected back from them by hand. Data collected from the surveys were statistically analysed by the Statistical Consultation Services of the North-West University, with the SAS program (SAS Institute Inc release 9.1, 2005).

1.5 DEMARCATION OF THE STUDY

According to McNeal (quoted by Kapoor & Verma, 2005:22), television is viewed as the most prevalent and controversial form of children's advertising; therefore, this study concentrates on television advertising. Since the study is aimed at determining parents' perceptions of television food advertising to children, perceptions relating to the advertising of all other products other than food will be excluded from the study. The empirical research also only focuses on parents with children between the ages of 3 and 14 years.

The sampling methodology employed was availability sampling, specific to a crèche in Vanderbijlpark, South Africa. The crèche chosen is not only the largest crèche in Vanderbijlpark, but also the largest crèche in the Vaal Triangle. The research was done through the distribution and collection of a survey questionnaire to the parents of children in the relevant age group.

1.6 LIMITATIONS OF THE STUDY

- The study will only represent the perceptions of parents with children between the ages of 3 and 14 years and will therefore not necessarily represent the views of parents with older or younger children.
- The study is limited to parents living in Vanderbijlpark, South Africa and therefore it is acknowledged that the perceptions of parents from other towns, cities and especially the rural areas of South Africa may be different.

1.7 LAYOUT OF THE STUDY

The structure of this study is divided into four chapters.

Chapter 1 - Nature and scope of the study

This chapter serves to provide the background to the study. The problem statement highlights the research objectives and from this, the primary and secondary objectives are defined. The research methodology is introduced and the limitations of the research are defined. The aim of the study is explained, that being to establish what parents' perception are towards television food advertising directed at children.

Chapter 2 – Literature review

Chapter 2 is a review of existing literature regarding the advertising of food to children, with specific focus on TV food advertising. The literature research investigates the association between childhood obesity and food advertising; the concerns around television food advertising directed at children; views on the ethics of advertising to children; regulations with regard to advertising to children; measures that other countries are taking in regard to advertising to children and perceptions from parents of other countries with regard to advertising to children.

Chapter 3 – Research methodology and results

This chapter contains a comprehensive explanation of the research methodology that was followed to complete the empirical study. This includes the data gathering process, the questionnaire, the analysis of the results and presentation of the findings.

Chapter 4 – Conclusions and recommendations

In the final chapter, conclusions are derived from both the literature review as well as the empirical study. The conclusions aim to present a response to the problem statement and objectives defined in chapter 1. Recommendations are presented and areas for future research are suggested.

1.8 SUMMARY

Advertising to children has received regular focus since 1961, yet it remains a controversial topic. Recent concerns about food, nutrition and an increase in childhood obesity have resulted in a resurgence of interest towards advertising to children. Chapter 1 provides the background to the study; the problem statement and objectives are outlined; and the scope of the study is clarified. Following this, the study moves to explain the research methodology that was followed, the limitations of the study and concludes with a layout of the study.

Chapter 2 deals with the literature study. The concept of advertising to children is introduced; the nature and extent thereof is explained; the concerns around advertising to children are discussed and regulating policies are investigated.

CHAPTER 2: LITERATURE REVIEW

ADVERTISING TO CHILDREN

2.1 INTRODUCTION

This chapter provides a sound theoretical base for defining the problem statement and formulating the research objectives. It sets the scene by introducing the concepts of advertising to children, explains the nature and extent thereof, and defines the concerns associated with advertising to children.

Obesity trends are discussed and the link between television food advertising to children and childhood obesity is explored. Regulating policies are investigated and policy decisions, taken by certain countries in response to public concerns, are reviewed.

This chapter further provides the basis for the development of a research questionnaire associated with the execution of the empirical research.

2.2 BACKGROUND

Advertising to children rarely receives good press coverage, as it remains a controversial topic in the wider domain. Is it responsible for poor diet? Does it make children pester their parents? (Preston, 2004:364) Is it ethical and does it negatively influence children's behaviour and food preferences?

Concerns about food, nutrition and an increasing occurrence of obesity amongst children worldwide have resulted in a resurgence of interest towards advertising to children. When people speak of advertising to children, they are frequently discussing food advertising. The reason for this is that over half of the

advertisements shown during children's television are for food-related products (Preston, 2004:367).

Obesity is now recognised as a chronic disease, with approximately half of the world's adult population considered to be either overweight or obese (a body mass index (BMI > 25) (Wang & Lobstein, 2006:12). Of particular concern to the World Health Organization (WHO) is the rising incidence of obesity among children younger than 14 years of age. This has caused the WHO to issue a warning statement that immediate action is required to stem the escalating pandemic of overweight and obesity (Du Toit & Van der Merwe, 2003:49). Increases in obesity numbers have financial implications for future government funding of the health services, so naturally this has emerged as a pressing issue in desperate need of attention.

The effects of television advertising on children have been a matter of concern since 1961, when it was formally recognised by the television industry that children are a special audience deserving special protection. This resulted in advertising guidelines being developed when advertising toys to children (Adler, 1977:3-4). Those guidelines have subsequently been extended to include all categories of television advertising intended primarily for children (ASASA, 2010).

Public concern over the potentially harmful effects of food promotion on children has been around for a long time. Previous food-related concerns have included nutrition, dental health, dieting and anorexia, and so forth. A number of studies conducted in various countries have shown that food advertising on television is dominated by breakfast cereals, confectionary, savoury snacks and soft drinks, with fast-food restaurants taking up an increasing proportion of high fat, sugar and salt (HFSS) advertising on television. Following Hastings and others' review of available literature in 2003, academic, political and public attention have been fixed on the role that food promotion, particularly television advertising, plays in influencing children's food choices, preferences and behaviour (Livingstone & Helsper, 2004:5).

Food marketers have realised the importance of targeting children. They want to develop positive, long-lasting brand relations with young children, teens and with parents in order to create brand loyalty in the future. Highlighting this importance, marketers spend large sums of money attempting to persuade children and youth to desire particular food products. With most television programming today being commercially supported, the estimates of advertising messages are astounding (Palmer & Carpenter, 2006:166-167; Story & French, 2004:3).

Children are considered to be vulnerable and susceptible to the influence of television advertising. With this onslaught of advertising on children, calls to give children special protection from marketing communications are understandable (Eagle *et al.*, 2002:2). Many parents, educators and pressure groups believe that advertisers exploit children's vulnerability and lack of experience and that advertising-induced demands lead to family tensions and conflict in the home (Bartholomew & O'Donohoe, 2003:433). Considerable political pressure for a ban on television advertising of certain kinds of foods directed at children, has been felt in some countries, in spite of the research-based claims of advertisers that advertising plays only a marginal role in children's food choices (O'Sullivan, 2007:298; Neeley & Schumann, 2004:7).

As might be expected, perspectives vary considerably with regard to advertising directed at children and the most effective course of action for addressing marketing's role in reducing childhood obesity. Marketing to children is burdened with ethical concerns. The major source of these concerns is the limited ability of younger children to process information and to make informed decisions. There are further concerns that advertising produces undesirable values in children, resulting in inappropriate diets and cause unhealthy levels of family conflict. Although marketers need to be sensitive to the limited information processing skills of children, ethical and effective marketing campaigns can be designed to meet the needs of the children and parents (Hawkins *et al.*, 1998:206).

2.3 NATURE AND EXTENT

During the 1920s, US advertising leaders became aware that people might not buy enough goods fast enough on their own, so they adopted a strategy of exploiting consumers' feelings of inadequacy and sought to market products as a means of alleviating consumers' negative self-image. Their strategy succeeded beyond their greatest expectations, in part, to the appearance and eventual dominance of television in American homes. As television developed, advertisers quickly realised that they could use it to bring products to the attention of the mass audience, both young and old (Calvert, 2008:206).

Children have become an increasingly important market for advertisers because of their spending power and purchasing influences, with television (TV) being the preferred medium to reach them. Content analysis research conducted by various researchers over the last 20 years have indicated that roughly half of all advertising during children's programs is devoted to food products, with the large majority consisting of nutritionally poor items that would be unhealthy to consume in large quantities (Stitt & Kunkel, 2008:574).

The "wealth" of today's children and adolescents has made youth a market worthy of pursuit by businesses. Youths now have influence over billions of dollars in spending each year. In 2002, American children aged 4 to 12 years spent $30 billion (Calvert, 2008:207). In an Institute of Medicine (IOM) report of 2006, according to Stitt and Kunkel (2008:574), it was reported that children and teens control an estimated $200 billion annually in direct food sales or purchases made by parents and others. When children start to receive allowances and have money of their own, roughly one third of their spending is on candies, snacks, and beverages. It is therefore not surprising that food marketers are estimated to spend more than $10 billion annually to promote products to children and youth (Palmer & Carpenter, 2006:165-190; Stitt & Kunkel, 2008:574).

In a study conducted by Roberts *et al*., as cited by Stitt and Kunkel (2008:574), it was found that children spend roughly 3 hours per day watching television, resulting in a cumulative exposure of more than 1,000 hours annually. This makes television advertising one of the most effective vehicles to deliver food marketing messages to children (Palmer & Carpenter, 2006:171; Story & French, 2004:3-5; Stitt & Kunkel, 2008:574).

2.3.1. Benefits of advertising

The standard economics arguments on the social value of advertising centres around the reduced search and information costs to consumers arising from advertising; higher sales of advertised products leads to economies of scale and lower prices. As an example; the toy industry states that television-advertised toys are sold at lower prices than toys not advertised on television, as high demand volumes created by advertising allows for volume component purchasing (Eagle *et al*., 2002:7).

"When economic socialization is considered, the macro role of advertising is to educate the next generation in the ways of consumption. That children are exposed to advertising is therefore merely an expression of a socioeconomic system." (Preston, 2004:365) Advertising to children is seen to contribute to children's general understanding of the economic environment, directly contributing to the development of children's product knowledge, consumer skills and symbolic meaning of brands (Adler, 1977:127-132). Furthermore, children use advertising to learn of the tools of social interaction that will facilitate self-expression and social conformance; both for themselves and their family (Preston, 2004:365).

Advertising revenue plays an important role in funding television program production, many such as educational programs for children. Therefore, TV advertising to children is important in more ways than one. Since television commercials play a role in initiating children's consumer behaviour at all age levels, allegations are that

advertising fosters undesirable social values in children, with materialism most often cited as an example (Adler, 1977:127-132).

Advertising promotes competition and stimulates investment in research and development. It can also have a major influence on the types and features of products marketed, such as high-fibre breakfast cereals, reduced fat and low cholesterol foods; all of which showed substantial share gains after their product attributes were advertised (Eagle *et al*., 2002:7).

Although clearly there are benefits resulting from television advertising, including benefits to children, concerns surrounding the marketing of products and services to children appear to be growing.

2.3.2. Concerns regarding TV advertising to children

Growing public concern over rising obesity levels, especially among children, have resulted in a resurgence of interest towards TV food advertising to children. Over the past decades, televised food advertising targeting children have been found to account for nearly half of all commercial messages on children's programs. In a study conducted by Stitt and Kunkel (2008:573), 11 food adverts featured in an average hour of children's programming. The overwhelming majority of food advertisements directed at children were for high-calorie, low nutrient food products that should not be part of a regular diet.

Food products have dominated children's television advertising for many years. Back in 1977, Adler (1977:3-4) stated that food products represented the most prevalent category of children's television advertising. He went on to state that critics alleged that the food products advertised represented a limited range of food and due to the effectiveness of food commercials, children's eating habits and nutritional values were being adversely biased towards the products being advertised. It was further

alleged that promotional characteristics such a sweetness, enjoyment and premium encouraged children to use “nutritionally irrelevant” criteria in making food choices.

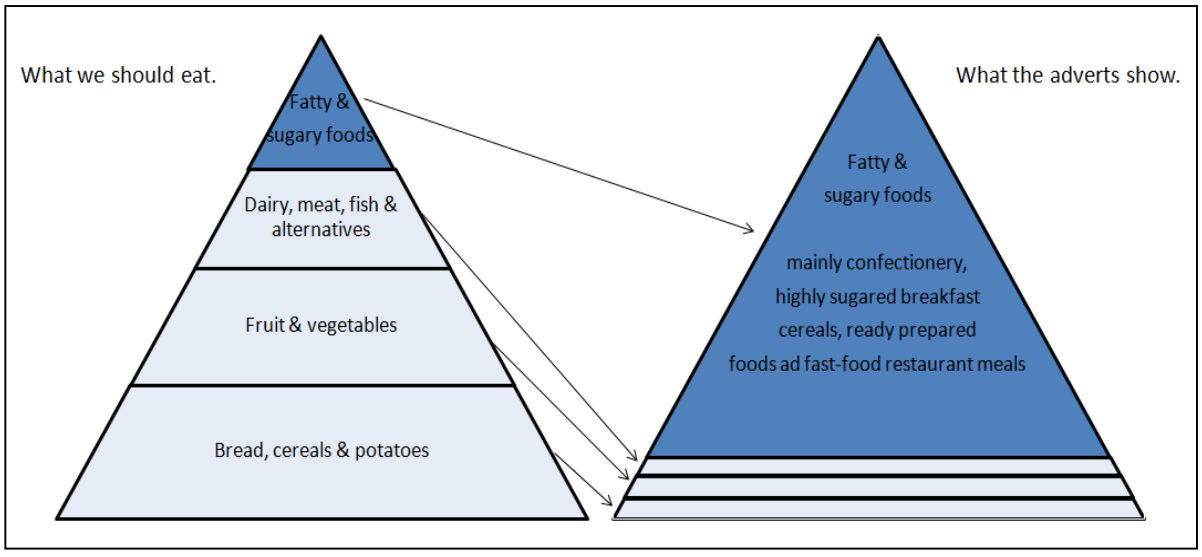
The largest single source used by food marketers to reach children, is television. According to Story and French (2004:3), over 75% of US food manufacturers' advertising budgets and 95% of US fast-food restaurant budgets are allocated to television. In a review of 63 studies examining the advertisements that featured during children’s time-slots, Hastings *et al.* (2006:16) found that those time slots were shown to be heavily used by food marketers to promote foods to children, and this trend was consistent across countries. In an international comparative survey of television advertising aimed at children, conducted in 13 countries by a non-profit organisation called Consumers International, it was found that food products made up the largest category of all advertisements to children in virtually all countries. In two-thirds of the 13 countries (which included Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Netherlands, Norway, Sweden, United Kingdom and the USA), food advertisements accounted for more than 40% of total advertisements, while confectionery, breakfast cereals (mainly sweetened), and fast food restaurants accounted for over half of all food advertisements (Story & French, 2004).

In a more recent study, Stitt and Kunkel (2008:579-582), found that three categories dominated food advertising targeted at children: fats/sweets (38.7%), breads/cereals (34.4%), and fast foods/restaurants (20.8%). Collectively these three categories account for more than 9 out of every 10 food commercials shown. Among the fats/sweets group, sugared snacks were the majority, accounting for 20.8% of all food advertising to children. In the breads/cereals category, sugared cereals were the majority, accounting for 26.0% of all food advertising to children. From their study, Stitt and Kunkel (2008:579-582) concluded that nearly half of all food advertising to children (46.8%) consists of commercials for sugared snack and cereal products. In contrast, more healthy food product categories such as dairy, fruits/vegetables, and proteins account for less than 4% of all food advertising to children.

Similar results have been obtained in other studies around the world. For example, it was found by Karupaiah *et al. (*2008:488-490) that 50% of overall food advertisements in Australia during general viewing comprised high-fat, high-sugar (HFSS) foods and this increased to 65.9% for children's programmes. When a Food Pyramid, based on the frequency of advertised food products was compiled, it indicated a predominant distribution of foods rich in fat, refined sugars and salt (56%) compared to dairy products including ice cream (20%) and carbohydrate-rich foods (19%) (Karupaiah *et al.,* 2008:488-490).

The "Food Pyramid" shown in Figure 2.1 is an illustration of how skewed TV food advertising is compared to what people should eat. The pyramid on the left shows recommended proportions of food groups for a healthy diet. The shaded area shows the "fatty and sugar foods" that should be "eaten sparingly", that is, infrequently and in small amounts. The pyramid on the right depicts the pattern of children's TV advertising and how it distorts the Food Pyramid into unhealthy portions (Dalmeny *et al.*, 2003:7). If TV food advertising potentially modulates food preference and food choice behaviours of children, then public concern over TV food advertising to children is understandable.

Figure 2.1: Food Pyramid



Source*:* Dalmeny *et al.* (2003:7)

One basis for the concern over marketing to children is based on Piaget's stages of cognitive development, which effectively indicates that children lack the ability to fully process and understand information until around 12 years of age (Hawkins *et al*., 1998:202). Piaget's theory proposes four main stages of cognitive development: sensorimotor, preoperational, concrete operational and formal operational; summarised in Table 2.1. Vast differences exist in the cognitive abilities of children at these stages. Preoperational children tend to be "perceptually-bound" to the reality-observable aspects of their environment and have a tendency to focus on a single dimension. In contrast, the concrete operational child can consider several dimensions of a stimulus at a time and do not accept perception as reality but can think about stimuli in their environment in a more thoughtful way. Finally, in the formal operational stage, children are capable of even more complex thought about concrete and hypothetical objects and situations (Haugtvedt *et al*., 2008:222). This theory and the research that supports it is the basis for most regulation of advertising aimed at children, and according to critics, for some marketing programs that deliberately exploit children (Hawkins *et al*., 1998:695).

Table 2.1: Piaget's stages of cognitive development

1. *The period of sensorimotory intelligence* (0 to 2 years). During this period, behaviour is primarily motory. The child does not yet "think" conceptually, though "cognitive" development is seen.
2. *The period of preoperational thoughts* (3 to 7 years). This period is characterised by the development of language and rapid conceptual development.
3. *The period of concrete operations* (8 to 11 years). During these years, the child develops the ability to apply logical thought to concrete problems.
4. *The period of formal operations* (12 to 15 years). During this period the child's cognitive structures reach their greatest level of development and the child becomes able to apply logic to all classes of problems.

Source: Hawkins *et al*. (1998:202)

According to Story and French (2004:3-4), numerous studies have documented that young children have little understanding of the persuasive intent of advertising. Prior to age 7 or 8 years, children tend to view advertising as fun, entertaining, and unbiased information; therefore, because of their level of cognitive development, children under 8 years of age are viewed by many child development researchers as a population vulnerable to misleading advertising. The heavy marketing of high fat, sugar and salt (HFSS) foods to this age group can be viewed as exploitative because these children do not understand that commercials are designed to sell products and they do not yet possess the cognitive ability to comprehend or evaluate the advertisement. Preteens, from ages 8 to10 years, are said to possess the cognitive ability to process or start understanding advertising intent, but do not necessarily do so. Although children's thinking become more multidimensional from the age of 12 years, they can still be persuaded by the emotive messages of advertising which play into their developmental concerns related to appearance, self-identity, belonging, and sexuality (Story & French, 2004:3).

Advertising has been charged with a number of ethical breaches, most of which focus on its apparent lack of societal responsibility. Concerns about advertising to children fall within two main categories of concern. The first being the "*Concerns about the ability of children to comprehend commercial messages"*; *and the second is the "Concerns about the impact of the content of commercial messages on children".*

2.3.2.1. Concerns about the ability of children to comprehend commercial messages

There are two components to this concern, namely:

- *Can children discern the difference between programs and commercials?* and
- *Can children understand specific aspects of commercials, such as comparisons?*

Understanding selling intent: A substantial amount of research indicates that children younger that 7 years of age have some difficulty distinguishing commercials from

programs and they are less able to understand the selling intent of commercials (Hawkins *et al*., 1998:695). Hasting's review of evidence revealed six studies that examined programme–commercial tie-ins. In those six studies it was found that the boundary between television shows and advertisement breaks was less than clear cut. It was further found that the food products which tended to sponsor shows, and utilise tie-ins, tended to be those categorized as pre-sugared or of low nutritional value (Hastings *et al*., 2006:19). The use of cartoons to promote products is a common theme used by marketers. In a study conducted in the United Kingdom (UK) recognizable, familiar characters and celebrities were present in 45.5% of the sample and one particular animated character featured in 37.5% of those adverts (Williams, 2006:16-21). Researchers have shown that the use of celebrities and cartoons diminishes younger children's ability to distinguish advertising from programme material (Preston, 2004:366). Therefore, the use of cartoon characters in adverts is seen as a deliberate attempt to exploit children's vulnerability and many countries have amended their regulations, prohibiting advertisers from using cartoon characters in advertisements within the same program in which the character resides (known as host-selling), or shortly after such a program. Some countries have also placed a ban on the use of licensed cartoon characters in advertisements.

Comprehending words and phrases: The second aspect of comprehension involves specific words or types of commercials that children might misunderstand, for example: disclaimers such as "Each sold separately", "Batteries not included" and advertisements showing dolls dancing or toy airplanes flying. Not only do young children not understand these phrases, but an analysis conducted in the US, of Saturday morning advertisements aimed at children, revealed that most disclaimers were presented in a way that did not meet the Federal Trade Commission's "Clear and Conspicuous" requirements (Hawkins *et al*., 1998:696).

2.3.2.2. Concerns about the impact of the content of commercial messages on children

Even if children accurately comprehend television advertisements, there are concerns about the effects the content of these messages have on children. These concerns stem in part from the substantial amount of time children spend viewing television. The large amount of time children devote to watching television, including commercials, gives rise to three major areas of concern (Hawkins *et al*., 1998:696-697), namely:

1. *The potential for commercial messages to generate intra-family conflict*. Advertising can generate family conflict by encouraging children to want products their parents do not want them to have or cannot afford to buy. A study of family conflict found that a majority of children were stimulated by advertising; nearly half of these children argued with their parents over denial of their requests and more than half became angry with their mothers when their request was denied (Hawkins *et al*., 1998:698). Parents do not generally wish to constantly disappoint their children, and advertising can be viewed as a constant opportunity for them to do so. Advertisers on the other hand claim that children will pester their parents for things they want regardless of advertising, and that pester power is as a result of peer pressure, not advertising (Preston, 2004:367). As Preston (2004:367) points out, if advertisers truly believed that they were not responsible for creating "*pester power*", why would they participate in a very expensive communication exercise that was without consequence?

2. *The impact of commercial messages on children's health and safety*. Concerns also arise that advertising may promote unsafe or dangerous behaviour. Young children put things in their mouths, therefore products and packaging should be safe when the product is removed. Ensuring that advertisements portray only safe uses of products is sometimes difficult, but it is not a controversial area. In many instances, advertising directed at adults is viewed by children and the consequences are potentially harmful. The fact that children watch prime-time

television therefore places an additional responsibility on marketers. Advertisements of health-related products, particularly snack foods and cereals, are much more controversial since advertisements cannot encourage excessive purchasing or consumption of such foods.

3. T*he impact of commercial messages on children's values*. Advertising is criticised as fostering short-term values; reinforcing materialism, cynicism, irrationality, selfishness, anxiety, social competitiveness, sexual preoccupation, powerlessness, and / or a loss of self-respect (Pollay, 2000:18-19). Advertisements should promote positive values such as sharing and good nutrition (Hawkins *et al*., 1998:700).

Advertisers use a number of persuasive tactics to promote food products to children, and a range of different themes and appeals have been cited. The most common theme/appeal used in food advertising to children is to associate the product with fun/happiness (Stitt & Kunkel, 2008:579-582; Williams, 2006:7). The advertisements show a mood change as a result of consuming the product; children laughing, smiling, or acting silly after taking a bite of the food advertised. Do children learn to expect mood changes from food as a result of these portrayals? According to Social Learning Theory, as cited by Williams (2006:16-21), it could be expected that children see such a promise as a positive outcome of the modelled behaviour, and would therefore be more motivated to request or consume the product (Williams, 2006:16-21).

In a study of 557 food commercials, cited by Stitt and Kunkel (2008:579-582), this tactic featured in nearly half (47.3%) of all commercials for food products advertised to children, while none used a primary theme / appeal that the advertised food was a healthy product. Similar results were found by Williams (2006:16-21). Although fun/happiness themes are the most common persuasive appeal overall, it is most predominant in fast food/restaurant commercials, where it features in four of every five fast food commercials (82.6%). The most frequent product advertised was found to be sugared cereals; and the taste/flavour/smell was the most commonly used

theme/appeal in those adverts. This tactic was however rarely used to promote fast foods/restaurants (Stitt & Kunkel, 2008:579-582; Williams, 2006:16-21; Palmer & Carpenter, 2006:170). A number of other themes were identified and the degree in which they were used varied based on the age of the target audience, for instance: age of the children.

Empirical research on children's food advertising has shown that food advertising affects children's knowledge, beliefs and behaviours with regard to food choice and nutrition. Research has further shown that the diets advertised contrast sharply with that recommended by public health advisers and themes of fun and fantasy or taste, rather than health and nutrition, are used to promote it to children (Hastings *et al*., 2006:1). Critics therefore accuse television food advertising for the rising obesity amongst children since it is believed that television directly influences children's health and dietary behaviours.

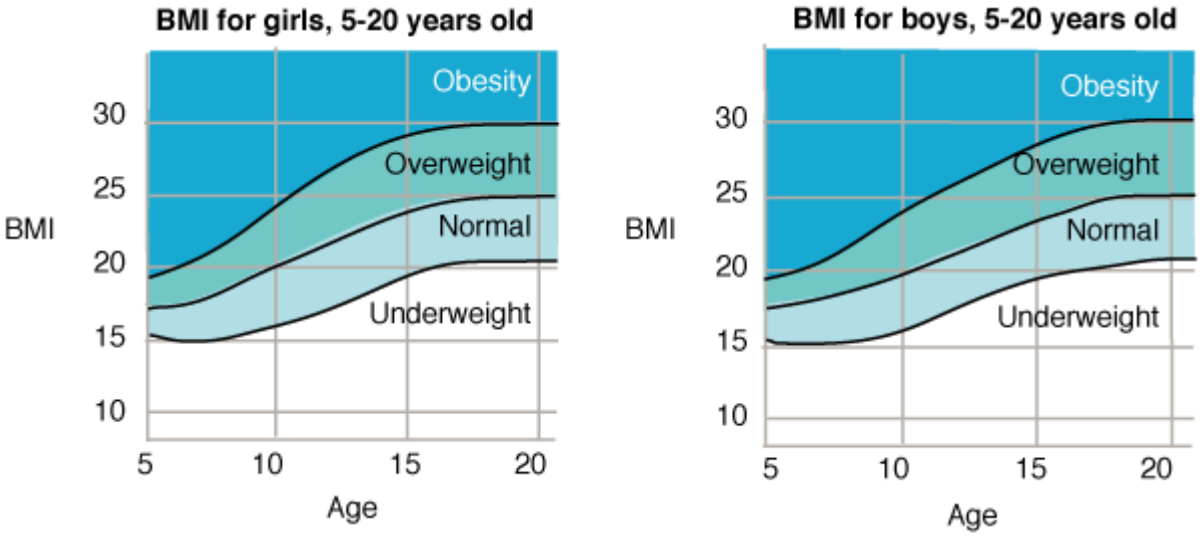
2.4 OBESITY: TRENDS AND CONCERNS

Obesity is defined by the World Health Organization (WHO) as a disease in which excess body fat has accumulated to such an extent that health may be adversely affected (Mollentze, 2006:44). In many reports, overweight and obesity are discussed in the same context, even though there is a difference. In adults, overweight and obesity ranges are determined by using weight and height to calculate a number called the "body mass index" (BMI). BMI is used because, for most people, it correlates with their amount of body fat. An adult who has a BMI between 25 and 29.9 is considered to be overweight, while one with a BMI of 30 or higher is considered obese (Anon., 2010a).

As can be expected, the classification for children is different to that of adults. According to the Centres for Disease Control and Prevention, the BMI ranges for children and teens are defined so that they take into account normal differences in

body fat between boys and girls and differences in body fat at various ages. Figure 2.2 can be used as a guide when classifying the weight of children.

Figure 2.2: BMI interpretation for children between the ages of 5 and 20 years



Source: Anon. (2010a)

Increased consumption of more energy-dense, low nutrient foods with high levels of sugar and saturated fats, combined with reduced physical activity, has led to obesity rates increase three-fold or more since 1980. The WHO has reported the rising incidence of obesity and chronic disease such as cardiovascular disease, cancer and diabetes among the population worldwide. Chronic conditions such as obesity, Type 2 diabetes, cardiovascular disease and diet-related cancers are of increasing concern to governments in industrialised countries. In the United States of America (USA), the government's Center for Disease Control named obesity second only to smoking as a leading cause of preventable deaths (Dalmeny *et al*., 2003:1-2). The obesity epidemic is not restricted to industrialized societies; the rise in obesity is often faster in developing countries than in the developed world.

Industrialization, urbanization, economic development and market globalization have contributed to changes in diets and lifestyles. These changes have accelerated over the past decade, significantly impacting the health and nutritional status of

populations, particularly in developing countries. While standards of living have improved and food availability has expanded, there have been significant negative consequences in terms of inappropriate dietary patterns, decreasing physical activities and a corresponding increase in diet-related chronic diseases, especially among the poor (WHO, 2003:1-2). Countries in economic transition from underdeveloped to developed, such as China, Brazil and South Africa are particularly affected and have an increased rate of obesity across all economic levels and age groups (Kruger *et al.,* 2005:491)

According to Eagle *et al.* (2005:176), reports of the exact magnitude of the problem vary largely due to different reporting methods. The Obesity Task Force and WHO, as cited by Goedecke *et al*. (2006:67), estimated that globally 1.3 billion people were overweight or obese in 2005. In America, 55% of the population were reportedly overweight or obese, while even in New Zealand, a country renowned for its healthy lifestyle and fitness, 52% of the population were found to be overweight or obese (Eagle *et al*., 2005:176).

Obesity amongst children and adolescents is of greater concern. It is viewed that a high proportion of overweight children will go on to be overweight in adulthood, thereby being at risk of associated chronic diseases such as Type 2 diabetes, cardiovascular disease and some cancers (Morley, 2007:2; Kelly, 2009:1).

Childhood obesity has become an increasingly serious health problem in the USA and around the world. Obesity among pre-school and school-aged children in the USA has tripled since the 1970s; with 14% of children ages 2–5 and 19% of children ages 6–11 characterized as being overweight. In contrast, the increase of obesity amongst adults was 1.6 fold (Moore, 2007:157; Goedecke *et al*., 2006:67). According to Olshansky in 2005, as cited by Moore (2007:157), forecasts of life expectancy in the USA suggested that unless obesity levels were reduced, the current generation of American children will live less healthful and possibly shorter lives than their parents. Childhood obesity is global, rapidly extending into the developing world; for

example, Thailand where the prevalence of obesity in 5-12 year old children rose from 12.2% to 15.6% in just two years (WHO, 2003:1-5).

According to Wang and Lobstein (2006:18-22), the prevalence of overweight and childhood obesity varies considerably among countries. They found that North America, Europe, and parts of the Western Pacific had the highest prevalence of overweight among children (approximately 20-30%), whereas parts of South East Asia and much of sub-Saharan Africa appear to have the lowest prevalence. South and Central America, Northern Africa and Middle Eastern countries fell in between the two groups. An important finding was that the prevalence of overweight among school age children in several countries undergoing economic growth, such as Brazil, Chile, Mexico and Egypt, had reached a level comparable to those in fully industrialized countries.

Wang and Lobstein (2006:18-22), based on the secular trends found and on the assumption that they would continue on a linear basis, compiled an estimate of the levels of overweight and obesity in 2010. As reflected in Table 2.2, they estimated that over 46% of school-age children would be overweight (IOTF criteria) in the Americas by 2010; along with approximately 41% of children in the Eastern Mediterranean region, and 38% of children in the European region (which included the countries of the former Soviet Union); 27% in the Western Pacific region and 22% in South East Asia. They were, however, not able to make a prediction for sub-Saharan Africa because they did not have adequate data at the time of their study.

Table 2.2: Projected estimates of overweight and obesity in school-age children for 2006 and 2010

	Most recent surveys		Projected 2006		Projected 2010	
WHO Region (dates of most recent surveys)	Overweight (inc obesity)%	Obesity %	Overweight (inc obesity)%	Obesity%	Overweight (inc obesity)%	Obesity%
Africa (1987/2003)	1.6	0.2	*Insufficient data*	*Insufficient data*	*Insufficient data*	*Insufficient data*
Americas (1988/2002)	27.7	9.6	40.0	13.2	46.4	15.2
Eastern Med (1992/2001)	23.5	5.9	35.3	9.4	41.7	11.5
Europe (1992/2003)	25.5	5.4	31.8	7.9	38.2	10.0
South East Asia (1997/2002)	10.6	1.5	16.6	3.3	22.9	5.3
West Pacific (1993/2000)	12.0	2.3	20.8	5.0	27.2	7.0

Source: Wang and Lobstein (2006:22)

Looking at the results from a study conducted by Kelly (2009:1), it appears that the projections made by Wang and Lobstein could be a little on the conservative side. In Australia, it was noted by the Australian Government Department of Health and Ageing in 2007, that almost a quarter of all children and adolescents were either overweight or obese (Kelly, 2009:1)

South Africa

Obesity is no longer a problem of developed countries and South Africa has not been spared in the rampant global increase in obesity. For several decades, there has been a steady increase in obesity in South Africa particularly among women and children. From the 1960s until the late 1980s, the notion of “healthy” or “benign” obesity was propagated in South Africa. Not surprising, this led to the ignorance

concerning the problem of obesity (Van der Merwe & Pepper, 2006:315; Kruger *et al*., 2005:491). In 1998, the combined figures for obesity and overweight (BMI > 25) among adults, across all ethnic groups, were 29% for men and 56% for woman (Van der Merwe & Pepper, 2006:315; Goedecke *et al.*, 2006:65). Base on a study conducted by the International Obesity Task Force (IOTF), overweight and obesity in South Africa are higher than that reported in other African countries, as seen in Table 2.3 (Goedecke *et al*., 2006:66).

Similarly, childhood obesity and overweight have become increasingly evident in South Africa. The National Household Food Consumption Survey reported that 6.7% of children aged 1-9 years of age were overweight and 3.7% were obese. However, when the body mass index (BMI) standard proposed by *Cole et al*. (2000:1241-1243) was used, 17.1% of the South African children were classified as overweight or obese. The study further revealed that the highest prevalence of overweight was found among urban children (20.1%), followed by tribal children (15.8%), and the lowest found among children living on farms (10.8%) (Kruger *et al.,* 2005:492; Goedecke *et al.,* 2006:66)

An observation made by Armstrong *et al.* as cited by Mollentze (2006:44), South African children showed very similar overweight and obesity numbers to children in the USA between 1976 and 1980. It was noted that if South Africa experienced the same increase in the prevalence of overweigh and obesity as was observed in the USA decades ago, then up to 24% of South African children will have a BMI>25 in less than a decade.

The factors contributing to children becoming overweight and obese are multifaceted; and include a combination of sociological, environmental and genetic influences. The advertising of unhealthy food to children has been recognised as one such factor contributing to the "*obesogenic*" or obesity promoting environment (Kelly, 2009:1). This has resulted in a number of studies being conducted over the years, attempting to prove or disprove the link between food advertising to children and obesity.

Table 2.3: Mean BMI of African countries categorised by age and gender

Country	*Sex*	*Age in Years*						
		5-14	15-29	30-44	45-59	60-69	70-79	80+
Cameroon	M		23.7	24.4	24			
	F		24.6	24.8	25			
Ethiopia	M	14.2	17.5	18.3	18	18	17.9	19.8
	F	14.5	18.9	18.6	17.3	16.7	17.6	18.6
Gambia	M		19.6	20.5	20.9	21	20	
	F		21	21.9	21.8	21.3	20.9	
Ghana	M							
	F		21.8	22.4	21.4			
Kenya	M							
	F		21.7	22.3	22			
Malawi	M				19.8	19.8	19.7	
	F				20.5	20.5	19.6	
Mali	M		18.9	20.5	20.8	20.3	19.6	20.2
	F		19.9	21.1	20.6	20	19.5	20.8
Nigeria	M		19.8	20.9	21.5			
	F		21	21.8	20.3			
Senegal	M		18.2	19.9	21	20.7	19.8	19.2
	F		19.6	21.4	22.1	22.2	21.3	20.7
Seychelles	M		22.9	23.5	23.1	23.2		
	F		23.2	25.7	27.2	27.5		
South Africa	M	13.8	21.5	24.2	25.3	24.8	24.4	
	F	14	24.4	28.5	29.9	28.8	27.7	
Tanzania	M							
	F		21.8	22.3	21.6			
Zimbabwe	M	15.3	19.5	20.8	21	21	20.1	20
	F	15.4	21.3	23	23.5	21.8	20.5	20.3

Source: Goedecke *et al.* (2006:66)

2.5 LINK BETWEEN ADVERTISING AND CHILDHOOD OBESITY

Since so many advertisements targeted at children are for foods that are high in calories and low in nutritional value, concerns have been raised that food advertisements are partly to blame for children being overweight and obese (Calvert, 2008:218-219). A number of studies have been conducted to determine if there is any merit to this concern.

Moore (2007:158) suggests that there have been two comprehensive research reviews published on the role of advertising in childhood obesity: one by the Food Standards Agency in the United Kingdom (the Hastings report of 2003) and the other in response to a US congressional directive by the Institute of Medicine (IOM) of the National Academies in 2006. This is not entirely true, as the Institute for Social Marketing at Stirling, and the Open University, United Kingdom of Great Britain and Northern Ireland conducted their own review in 2006 of two previous systematic reviews on food promotion to children, on behalf of the World Health Organization (WHO) (Hastings *et al*., 2006:1).

The Hastings review, as it is known, was undertaken for the United Kingdom Food Standards Agency (FSA) and was the first ever systematic study of the effects of food promotion on children. Hastings *et al.* conducted a review in 2003 of available literature on advertising and obesity to test the relationship between advertising to children and obesity. Based on this research, Hastings *et al.* reported qualified findings that advertising to children does in fact have an adverse effect on food preferences, purchasing behaviour and consumption. He further states, as cited by Livingstone and Helsper (2004:8) that "*This effect is independent of other factors and operates at both a brand and category level*."

In its analysis of empirical literature, the IOM concluded that "food and beverage marketing practices geared to children and youth are out of balance with nutritious diets and contribute to an environment that puts their health at risk." It further concluded that television advertising influences key dietary precursors, including

children's (ages 2-11 years) food and beverage preferences, purchase requests, and short-term consumption (Moore, 2007:158; Calvert, 2008:218-219; McGinnis *et al.,* 2006:374: Stitt & Kunkel, 2008:574). Although correlational evidence linked the exposure to television advertising to adiposity (body fatness) in children and youth (Moore, 2007:158) Calvert (2008:218-219) states that the IOM panel was, however, unable to conclude that television food advertising had causal effects on child obesity, because the data were by necessity correlational, not causal (that is, one cannot ethically conduct research to cause some children to become overweight and obese).

Findings from the 2006 systematic review, prepared for the WHO, supported the views that food advertising to children affects food choices and influences dietary habits, with subsequent implications for weight gain and obesity (Kelly, 2009:1; Hastings *et al*., 2006:27-36).

Commonly discussed in the fields of social, health and developmental psychology as well as in consumer and marketing research, is that the media (television, advertising, promotions, and others) also have a further, indirect effect on children's food choices (Livingstone & Helsper, 2004:6).

2.6 INFLUENCE OF TELEVISION ADVERTISING

Television remains a powerful influence on the lives of children. Children still spend more time watching TV than any other activity, even though researchers are starting to see a shift towards gaming, for instance *Playstation* or computer (Chang & Nayga, 2009:293). Berger, as cited by Arnas (2006:139-143), stated that "*the most important effect of television on children is not the effect that it will cause but the things that it will prohibit*". What Berger is implying is that television takes away children's playtime, prevents their creativity and social development, and decreases their communication skills. Television also has an effect on children's health; results of the analysis showed that 90% of the children ate or drank while watching television and

that one-third of the food preferred by children while watching television were unhealthy foods, involving fat and sugar and that these were the items most frequently advertised (Arnas, 2006:139-143).

From a very young age, children influence their parents' buying behaviour. Exposure to television advertising has been shown to stimulate children's purchase influence when shopping with a parent. The foods most often requested by children when shopping with a parent are the foods rich in fat and sugar and the foods most often advertised. The nagging and "pester power" is so great that research also demonstrates a high rate of yielding by parents to their children's food product purchase requests (Arnas, 2006:139-143; Stitt & Kunkel, 2008:574). Food marketers understand this parent-child relationship very well, which explains why many food conglomerates pay substantial fees to local supermarkets for placing their child-oriented food products, for example: sugared cereals, on lower store shelves where children are more likely to see the items and request them while shopping with their parents (Stitt & Kunkel, 2008:574).

Field experiments, such as the one conducted by Goldberg and Gorn in 1978, at a summer camp, complements the numerous laboratory studies demonstrating short-term advertising effects on children's attitudes toward food products and their food product choices. Goldberg and Gorn manipulated the television advertising seen by 5- to 8-year olds over a two week period and then tracked children's actual food consumption in the camp cafeteria. They found that the food children ate was significantly influenced by the advertisements they had viewed (Stitt & Kunkel, 2008:574).

Advertising industries often argue that advertising has far less influence over children's behaviour than family, siblings and friends do. Communication researchers agree, stating that interpersonal communication is far more effective when it comes to calling attention to products, influencing attitudes, conceptions and behaviour than mass communication, for instance: TV commercials. Therefore, their opinion is that children's curiosity about various products is not a result of advertising but of

interpersonal communication. That view is easily challenged by sketching a scenario that if a sibling or a friend persuades a child to buy something they saw on TV, is it not as a result of the influence that advertisement had on that person in the first place? (Jarlbro, 2001:75-76)

TV food advertising has been shown to alter food preference and food choice behaviours of children and given that, children are considered vulnerable and do not possess the cognitive ability to understand the intent or subliminal message of the advertisement they enjoy watching; it is conceivable that children will benefit from a reduction of the commercial pressure. Restricting advertising time or embedded advertising, regulating premium offers and instituting either total or selective bans of specific food groups are regulatory approaches used in developed countries (Karupaiah *et al*., 2008:490).

2.7 POLICY OPTIONS RELATING TO ADVERTISING TO CHILDREN

The perceived negative impact of marketing communication, especially advertising to children has received regular focus since 1970. The presence of some form of restriction or ban on advertising to children first appeared over 20 years ago and it continues to haunt marketers worldwide. The imposition of some sort of "*sin tax*" on foods deemed to be unhealthy has also been considered as a mechanism in reducing the advertising of unhealthy food to children (Eagle *et al*., 2005:177).

When examining the range of interventions available to countries looking for ways to give children special protection from marketing communication, Dignam (as quoted by Eagle *et al*., 2005:178) is of the opinion that the banning of television advertisements to children will not prevent children from seeing the adverts in other media, nor on television outside children's viewing hours. In addition, he contends that it will not prevent pester power nor will it prevent children from being influenced by other elements in the marketing mix; such as branding, point of sale or packaging. Advertising revenue plays an important role in funding television programme

production and a total ban on television advertising during children's programmes would mean the loss of money to support these programmes which in turn could affect programme quality and the volume (Eagle *et al*., 2002:6). Furthermore, bans may reduce competition, which in turn will raise prices of products and potentially reduce the money invested in research and development. In addition to the economic impact of advertising bans, Abernethy and Frank (as cited by Eagle *et al*., 2005:179) observed that advertising can have a major influence on the types and features of products marketed such as high-fibre breakfast cereals, reduced fat and low cholesterol foods. To estimate the potential impact of bans, the advertising ban on tobacco products is often used by researchers. One could argue that tobacco is not the ideal product to be used for comparisons or impact analysis since it brings with it another dimension that does not appear in other products; for instance, the addictive nature of tobacco, but it gives an indication of how advertisers and consumers could react in response to advertising bans (Eagle *et al*., 2005:178-179). A ban on advertising in one media segment usually leads to marketers repositioning their advertising in the other non-regulated media. An interesting study from the 1970s on the impact of cigarette advertising bans in the broadcast media, showed how tobacco companies responded. They sharply increased their print media advertising, resulting in an increase in the percentage of smokers over the period of the study (Eagle *et al*., 2002:6).

An alternative to advertising bans or restrictions is the application of sales or excise taxes (otherwise known as “sin tax”) on unhealthy foods. The philosophy behind a direct tax on unhealthy foods (such as high fat or low nutrient foods) is to establish an instrument whereby revenue can be raised to fund health care and /or public education programs while at the same time attempting to discourage consumption of these foods. According to Siudzinski and Tyre (as cited by Eagle *et al*., 2005:179), sales taxes on soft drinks and foods high in fat are already in effect in some states in America, yet there appears to be no evidence that it has had an influence on dietary habits or obesity in those states. Policy makers hope that by taxing junk food, there will be a similar correlation between price and consumption levels as was seen with tobacco and alcohol. While there are many supporters of “*sin tax*” others feel that

increasing the price of these foods is unlikely to force their replacement by foods perceived to be healthier and such a move may have several unexpected consequences. The extent to which the burden of the taxes will be passed onto the consumer is crucial to understanding the effectiveness of the tax (Eagle *et al*., 2005:181; Eagle *et al*., 2002:7).

A positive approach and an alternative to excise taxes on unhealthy foods, is subsidies on healthy foods. The rise in popularity of fast foods is its affordability and convenience. Many people feel that healthy foods are too expensive therefore it is sometimes cheaper to eat at the fast food restaurants than it is to prepare home cooked meals (Eagle *et al*., 2002:7). That raises the question of whether decreasing the cost of healthy food would influence consumers' food preferences.

A more preferred policy option appears to be that of self-regulation. Self-regulation is a system whereby the industry actively participates in and is responsible for its own regulation. Self-regulation of advertising normally consists of two basic elements: the first is a code of practice, normally a set of ethically based guidelines governing the content of marketing campaigns; the second is a process for the establishment, review and application of the code of practice. Although there are a number of ways to structure the process, a self-regulatory organisation (SRO) is normally established by the advertising and media industries; and in many cases accompanied by companies that use advertising to promote their products or services. The general aim of self-regulation is to ensure that advertisements and other forms of marketing do not deceive, mislead or offend consumers. This is turn is said to promote trust in advertisers amongst consumers and government authorities (Hawkes, 2005:374). The industry feels that, if implemented in a fair and robust manner, self-regulation is a win-win for consumers and advertisers alike, however Hawkes (2005:374) is more critical and states "*Self-regulation therefore exists to protect advertisers (from external regulation) as well as consumers, thereby facilitating the proliferation of advertising – a classic case of 'enlightened self-interest'.*"

According to Eagle *et al*. (2005:183), Abernethy and Wicks concluded from their review of previous research, that self-regulation was identified as the most efficient tool for curbing excesses and illegality in advertising. Although Hawkes (2005:380) acknowledges that self-regulation may be able to control advertisements that are blatantly misleading, deceptive and exploitative of innocence, he suggests that they can not control advertisements that use creative and emotional techniques to build brand power with children; they cannot control the quantity or location of advertisements targeting children throughout the day; and they cannot prevent enticing children with effective, exciting and emotional images which make children want to try the promoted foods thereby pestering their parents to get them. Hawkes (2005:275) is therefore of the opinion that self-regulation cannot prevent "*marketing that works*". Globally, the concept of self-regulation is championed by the International Chamber of Commerce (ICC), and part of its work is to form '*internationally agreed rules and standards that companies adopt voluntarily*' (Hawkes, 2005:275).

As with many sensitive issues there are various views and different arguments for and against regulating advertising. One expert is quotes by Livingstone and Helsper (2004:10) as saying '*Given the number of factors involved, the independent contribution of food advertising and more specifically advertising on television must be small. Banning such ads alone as a single strategy to combat excess weight gain in children seems highly unlikely to succeed. However, as part of a broader obesity strategy – or indeed – broader strategy to improve children's diets, it is impossible to argue against.*"

As an argument for imposing restrictions on advertising to children, some consumers and organisations feel that governments have the responsibility to protect children against the highly sophisticated and persuasive advertisements; and they have a responsibility to support parents in minimising poor food choices for their children (Radcliffe & Ashton, 2003:270). In another example, a study conducted by the UK communications regulator OFCOM in September 2006, majority of participants felt

that regulation of food and drink advertising to children was necessary and that industry regulation would not be sufficient (Da Silva, 2007).

Jarlbro (2001:76) rightfully pointed out that majority of the studies on this subject have been steered by extra-scientific interests, for example: the policy decision, whether or not advertising to young children should be banned or regulated. The result of this approach means that the studies have had different starting points and perspectives.

Very little research has evaluated the effectiveness of advertising regulation and there is even less research on the effectiveness of banning food advertising from children's television. Although most countries in the EU regulate advertising to children, few of these policies have been tested for their effectiveness in changing children's buying behaviour or food preferences. Evaluations for alcohol and tobacco advertising bans however have shown that the effects are weak and temporary, with little to no consequence in reducing consumption (Livingstone & Helsper, 2004:4).

2.8 POLICY DECISIONS ADOPTED IN OTHER COUNTRIES

Pressure from the public and consumer bodies, in reaction to the growing concerns surrounding children's diets and the perceived role that advertising to children plays in exacerbating it; many countries worldwide have implemented some form of regulatory policy with regards to the advertising of food to children. Examples of policy decision taken by some countries are briefly discussed.

United Stated of America

In the United States of America (USA), the dominant public policy response to nutritional concerns and advertising to children has been to encourage self-regulation with minimum government oversight. Self-regulation of advertising to children was first introduced in 1972 and two years later, the National Advertising Review Council (NARC) set up the Children's Advertising Review Unit (CARU) to oversee the

implementation of the guidelines, promote responsible advertising to children and to some extent prevent governmental interference (Hawkes, 2005:376; Calvert, 2008:223). Central to CARU are the *Self-Regulatory Guidelines for Children's Advertising*, which apply to broadcast and print advertising targeted at children under the age of 12. CARU applies the guidelines almost exclusively through internal monitoring (Wilde, 2009:157).

In 1978, the Federal Trade Commission (FTC) began to draft a proposal (which later became known as the "*kid-vid*" proposal) to further regulate advertising based on the compelling evidence presented by the FTC staff. Congress, however, barred FTC's suggestion of a ban on all product advertising to children 8 years and younger based on it being unfair (Palmer & Carpener, 2006:168-169; Hawkes, 2005:376; Wilde, 2009:156). Concerns have been raised over the years by many sectors of civil society; and critics argue that limits should be placed on marketing activities targeting children. In 2004, The American Psychological Association called for restrictions but adopted a more comprehensive approach in recommending that all television advertising to children younger than 7 years be eliminated; while in 2006 the American Academy of Paediatrics called for a ban on advertisements for "*junk food*" in television programs predominantly viewed by young children. In contrast with these policy proposals, the Institute of Medicine's (IOM) report on food marketing, released in 2005, recommended voluntary commitments by the food and advertising industries to change marketing practices. The system of industry self-regulation, however, remains the main policy response to date in the United States of America (Moore, 2007:158; Hawkes, 2005:376-377; Wilde, 2009:156-157).

In November 2006, ten of the largest food and beverage firms (together accounting for more than two-thirds of children's television advertising expenditures) announced a voluntary self-regulation program called the *Children's Food and Beverage Advertising Initiative*. The goal of the initiative is to shift the mix of children's advertising to promote more healthful dietary choices, good nutrition, and/or healthful lifestyles. These firms pledged to dedicate at least one-half of their advertising

spending to messages that support this aim (Moore, 2007:158; Stitt & Kunkel, 2008:574).

United Kingdom

In the United Kingdom (UK), stronger steps have recently been taken regarding advertising to children. In 2007, the Office of Communications (Ofcom), which is the media regulatory agency in the United Kingdom, approved new rules banning the advertising of foods high in fat, sugar and salt on television programs that are either designed for or appeal to children under the age of 16. This move follows the UK government's calls for better self regulation and the conclusions from Ofcom's 2004 report on food advertising to children. In the report, Ofcom concluded that advertising does play some role in food choice and action was needed, but there is no case for a ban on advertising all food to children (Moore, 2007:158; Hawkes, 2005:378; Wilde, 2009:157).

Canada

Canada has opted for two different policies regarding advertising to children. In French speaking Quebec, advertising to children is banned, whereas in the rest of Canada it is self-regulated. Except for Quebec, the Advertising Standards Canada (ASC) is the national industry association in charge of self-regulation with a very specific role in regulating food advertising to children. The ASC, like the self-regulating organisation (SRO) in the USA, does not regulate other promotional activities or their location, nor the quantity of advertisements for foods high in fat, sugar and salt targeted at children. Although ASC view themselves as being effective, objective and having open communication with stakeholders, critics have accused the system of being too industry-friendly, the enforcement standards inherently weak and the complaints system lacking independence and transparency (Hawkes, 2005:378).

Singapore

Advertising in Singapore is subject to self-regulation by the Advertising Standards Authority of Singapore (ASAS). ASAS is funded by member associations, including

advertising and media associations, representatives from medical and pharmaceutical associations, government agencies and the Consumer's Association of Singapore (CASE). The close relationship with a consumer group and the presence of a representative on its board is unusual since most SROs have no consumer representation on their boards. This is on the basis that self-regulation must be led and controlled by business in order to be truly effective (Hawkes, 2005:379).

Sweden and Norway

In several countries, national governments have opted to regulate advertising. Since the early 1990s, Sweden and Norway have prohibited TV advertising that targets children younger than 12 years. In short, the Swedish law prohibits commercial messages that are designed to attract the attention of children. Furthermore, no commercial messages of any kind may be transmitted directly before, during or after children's programmes. Since the law applies only to the channels that transmit from Swedish soil; children can still be exposed to advertisements transmitted by neighbouring countries since the European Community Court of Justice has determined that channels shall be subject to the law of the country from which they transmit (Wilde, 2009:157; Jarlbro, 2001:71).

Malaysia and France

Borne out of concerns over the global obesity epidemic and a link to childhood habits, Malaysia introduced in 2007 a public policy banning fast food advertisements on television aimed at children (Karupaiah *et al*., 2008:483). France, as of 2007, now requires that advertisements for processed foods high in added sugars and fats be accompanied by a nutritional message. France is however allowing advertiser not to comply, if they choose to pay a financial penalty instead (Wilde, 2009:157).

Food marketers declare that they have already begun to respond effectively to concerns about their child marketing practices. According to Tumulty, as cited by Stitt and Kunkel (2008:574), some companies claim that they have restricted the advertising of high-calorie, low-nutrient products to children; whereas others

reportedly have diversified their product lines to include more healthy products they intend to market to youth. Coca-Cola, for example, claims that they no longer advertise on programs aimed at viewers younger than age 12, whereas Kraft Foods claims that it now limits its advertising on children's programming solely to designated healthy offerings. The most noteworthy development was the *Children's Food and Beverage Advertising Initiative*, where America's largest food and beverage companies publicly committed to devote at least half of their advertising directed to children; "*to promote healthier dietary choices and/or to encourage good nutrition or healthy lifestyles*" (Stitt & Kunkel, 2008:574).

2.9 POLICY DECISION ADOPTED BY SOUTH AFRICA

Prior to 2007, South Africa had no specific restrictions or limitations on the type of products or services which could be advertised to children (with the exception of alcohol and tobacco) or the type of advertising that could be used. In response to the growing concern of childhood obesity, the South African government, in 2007, published proposed regulations to the Foodstuffs, Cosmetics & Disinfectants Act 39. The regulations proposed that certain foods, categorised as "non-essential to a healthy lifestyle", be prohibited from being advertised to children in any manner. They further proposed that no cartoon-type characters, puppets, animation, tokens or gifts may be used in the advertisement or promotion to any child younger than 16 years of age. A total prohibition on the words "*health*" and "*healthy*", "*wholesome*" and "nutritious" being used anywhere on a product was also proposed (Thompson, 2007).

During the same period, the Advertising Standards Authority (ASA) of South Africa's Code of Advertising Practice introduced its own regulation to address the much talked-about issue. The ASA is a self-regulatory body established and comprises marketing and advertising industry bodies and media owners. Its Code of Advertising Practice sets out principles to which all advertisements, whether it be on television, radio, internet or any other media, must adhere to (Thompson, 2007). The Code is

based upon the International Code of Advertising Practice, prepared by the International Chamber of Commerce and is internationally accepted as the basis for domestic systems of self-regulation (ASASA, 2010).

While the ASA Code traditionally protected children from advertisements which contained harmful statements and visuals or which exploit their innocence, the Code has been amended to include provisions which place restrictions on the advertising of certain food and beverages to children. The new regulations are aimed specifically at preventing the marketing of unhealthy food choices to children under the age of 12 years, as is seen in Annexure A. Products which are not considered "healthy dietary choices" may not be advertised on television with the use of celebrities or characters licensed from third parties (such as cartoon characters). In the attempt to strike a fair balance, ASA allows advertisers' own characters (for example, the "*Oros Man*" and "*Snap, Crackle and Pop*") and a degree of fantasy, which includes animation, to be used in advertisements aimed at children. Nutritional and health benefit claims, as well as any disclaimers, must, however, be conveyed in a manner easily understood by children. The advertising of unhealthy foods may not be advertised on or in close proximity of pre-schools and primary schools (Thompson, 2007).

On 11 June 2009, a number of South African food, beverage, retail and quick service restaurant companies announced a common commitment to change the way they market and advertise to children 12 years and under. The move followed international developments, as seen in Annexure B, in which some of the participating companies had made similar individual commitments on food and beverage advertising to children. Initiated by the Consumer Goods Council of South Africa (CGCSA), *The South African Pledge on Marketing to Children* is a voluntary commitment by the industry to undertake advertising and marketing initiatives that emphasise nutritional awareness and promote responsible marketing to children (Anon, 2009b). The South African Pledge follows on similar pledges taken by other countries since 2006 (see Annexure B).

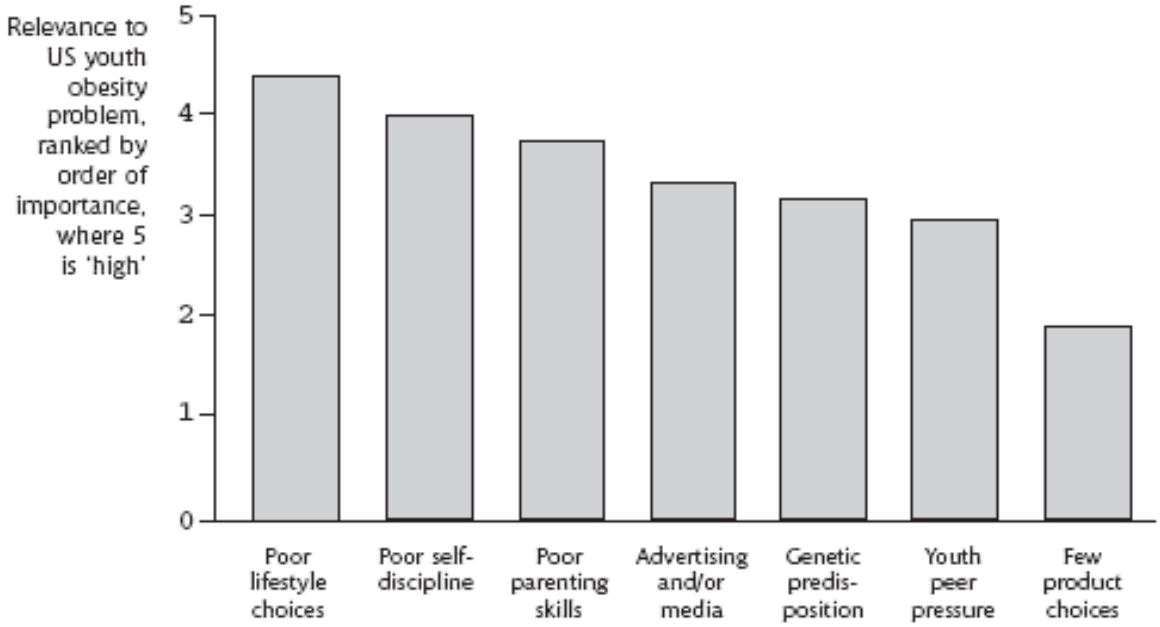
2.10 PARENTS' PERCEPTIONS IN OTHER COUNTRIES

Perception is defined as "the *process by which an individual selects, organizes and interprets stimuli into a meaningful and coherent picture of the world*." It can be described as "*how we see the world around us*." Two individuals could be exposed to the same stimuli under the same apparent conditions, but how each person recognizes, selects, organises and interprets these stimuli is a highly individual process based on each person's own needs, values and expectations. Perception has, therefore, strategic implications for marketers because consumers make decisions based on what they perceive rather than on the basis of objective reality (Schiffman & Kanuk, 2004:158-199).

Numerous studies suggest that current food marketing strategies affect children's food choices; including preferences, purchase behaviour, consumption and nutritional knowledge. Various institutions and consumer groups have been calling for a complete ban on all television food advertising during programs where children, younger than 14 years, make up a majority of the viewing audience. Although the political and public debate has been quite vigorous, it has nevertheless been dominated by public health and industry interests; and the voices of parents have not really informed the discussions. To a large extent, this has been due to there being limited information on how parents experience the impact of television food advertising on their children's food choices, parents' coping strategies and overall level of parental concern for this issue (Ip *et al*., 2007:51).

Results from a survey conducted in 2002, Figure 2.3, showed that manufacturers are of the opinion that "*Advertising and/or media*" is the fourth most relevant cause of the rise in childhood obesity in the USA; after "poor parenting skills", which was perceived to be the third most relevant cause to the obesity problem (Dalmeny *et al*., 2003:23). "*Poor lifestyle choices*" was ranked as the number one cause for the obesity problem among American youth. This could be a "sign of the times", as many households comprise dual-working parents who, due to time pressure, are more inclined to purchase convenience food.

Figure 2.3: Manufacturer opinion of the most relevant causes of the rise in obesity in the USA



Source: Dalmeny *et al*. (2003:23)

Parents play an important role in children's acquisition of consumer knowledge and skills; through parent-child communication, training and modelling. Parental concern about advertising reflects both personal and cultural differences in the perceived benefits of controlling outside influences on their children; such as mass media (Chan & McNeal, 2003:155).

Research on the subject of television advertising to children has predominately focused on determining how advertising influences children; children's understanding and reaction to advertising; and approaches on how to protect children from advertisers. In comparison, only a few studies have been dedicated to determining parents' perceptions with regards to TV advertising aimed at children. From the studies found, an overwhelming majority of those studies revealed that parents are concerned about the levels of advertising to children and the consequences resulting from it, for example, pester power or unhealthy food preferences.

In the United Kingdom (UK), a few studies have been conducted over the years on parents' perceptions towards TV food advertising. The surveys revealed that British parents were deeply concerned about the impact of advertisements on their children. There were also several independent surveys, including surveys conducted by organisations working for the marketing industry, which confirmed the high levels of parental concern:

- In 1994, Mori found that 64% of parents wanted tougher restrictions on the advertising of foods and drinks to children, and that most parents believed advertising had a detrimental effect on children's diets.
- In 2000, a study conducted by the Cooperative Wholesale Society in the UK, revealed that 80% of the parents wanted tighter controls on advertising to children, and 77% wanted to see a ban on the advertising of food to children.
- In 2002, the Chartered Institute of Marketing in the UK, revealed that 75% of parents thought that children were exposed to too much advertising.
- In a study conducted by the Welsh Consumer Council, in 2003, 'many parents felt under pressure from their children's demands as a result of the attractive and powerful advertising they saw on TV during children's programmes.' (Dalmeny *et al*., 2003:20).

In a study conducted by Which? Research in 2006, 815 parents of children under 17 years of age were surveyed; 79% of the parents agreed that TV advertisements for unhealthy foods should not be allowed during the times that children are most likely to be watching television and 86% agreed that the UK Government should do more to control the way that unhealthy foods are marketed to children (Davies, 2007:44; Morley, 2007:3).

A survey of 1 665 parents of elementary school children aged 6 to 14 years conducted in Beijing, Nanjing and Chengdu between December 2001 and March 2002, revealed that "*Chinese parents hold negative attitudes towards television advertising in general and children's advertising specifically*." (Chan & McNeal, 2003:151). The negative attitudes resulted mainly from the perception that advertising was deceptive and annoying; therefore, parents felt strongly that

advertising should be banned from children's programming. Perhaps as a reflection of their culture, 98% of the parents stated that they exercised some control over the contents and time of television viewing. Furthermore, despite a low level of co-viewing and discussion of television commercials with children, Chinese parents perceived that they had great influence on their children's attitudes towards advertising (Chan & McNeal, 2003:151).

In 1999, interview studies were conducted in Spain and Sweden, where the perceptions of 1000 adults in each country were sought with regard to what children tried to persuade them to buy when shopping. The choice of Spain and Sweden was dictated by the fact that the two countries represented extremes in terms of the regulation of advertising to children: Spain had very few restrictions, whereas Sweden had a total ban. The results showed that few respondents in either country experience children's pestering as problematic and only a small proportion of these respondents considered a ban on advertising to children as an appropriate remedy. The shortfall of this study was that the samples did not represent the perceptions of parents with small children. Furthermore, it was not possible to see whether the responses differed between parents and non-parents (Jarlbro, 2001:75).

In Australia, a number of studies on parents' perceptions of TV food advertising have been conducted over the last decade. A South Australian study conducted in 2004 by Ip *et al*. (2007:50-58), where 32 parents of primary school children participated in five focus group discussions, parents expressed high levels of concern and indicated that TV food advertising impacted negatively on children's food preferences and choices. Parents also suggested that current regulations of TV advertising to children were not being enforced and questioned their adequacy and usefulness in protecting children. Views were, however, mixed in terms of support for a ban on food advertising to children, but the majority of parents supported restrictions on TV food advertising during children's TV viewing times (Morley, 2007:3).

In 2005, as cited by Morley (2007:3), Roberts conducted a similar qualitative study of 21 Australian mothers with young children. The findings suggested that parents

perceived that advertising techniques, used to market unhealthy food products, negatively impacted children's food preferences and consumption behaviour. Offers of toys and giveaways were especially seen to drive greater demand for unhealthy food.

In May 2006, The Australian Consumers' Association commissioned Newspoll to conduct a community survey of 1 200 Australians over the age of 18 on food advertising to children. While the survey suggested that 82% of the community supported governments regulating the way food and drink are advertised to children, a sub-sample (33%) of parents or guardians of children younger than 18 years provided marginally greater support (86%) for government regulation. The survey also revealed that almost one-quarter supported government action to ban the advertising of unhealthy foods and drinks during popular children's television programs, while the majority (65%) thought the government should place restrictions on such advertising, but not ban it completely (Morley, 2007:3).

Morley (2007:1-23) recently conducted a survey in Australia, on behalf of the Cancer Council of Victoria, to determine community perceptions of television food advertising to children and the range of methods used by advertisers to market these products to children. The survey further investigated community perceptions of how well the existing "regulatory" system was working in providing protection to children. Findings from this survey were consistent with other surveys relating to parents' views on television food advertising to children, in particular, advertising of unhealthy food. Parents expressed concern that advertising created a desire, expectation and / or demand for the advertised foods. Concern was also raised regarding the amount of television advertising of unhealthy food and the methods used by advertisers to market these products to children, in particular, the offer of free toys or gifts.

In an earlier study of New Zealand parents' perceptions of TV advertising to children, parents of primary school children did not support an advertising ban within children's television programmes. These parents also expressed no major concerns regarding the influence of advertising on their children's diets; but did however express major

concerns with regard to the impact of some elements of television programming, other than advertising, on their children (Eagle *et al*., 2002:10; Eagle *et al*., 2005:186).

In a more recent study of New Zealand parents' perceptions regarding TV advertising to children, Phoenix Research conducted a survey to measure public opinion about what limits, if any, society should place on advertising of food to children. The research was conducted in 2005, by a nation-wide telephone survey and focussed on parents and grandparents of children younger than 13 years of age. Results from the study were similar to the results from the surveys done in Australia. Most parents and grandparents perceived that advertising influenced children's liking for particular products and more than half said it influenced children's requests for particular food and drink products. Two-thirds were concerned about advertising in general, and three-quarters were concerned about the advertising of unhealthy food and drink products. More than half of the parents and grandparents also thought that food and drink advertising on TV to children should be reduced or stopped (PEAK GROUP, 2007:5-8).

2.11 SUMMARY

The perceived impact of television advertising on children has been fiercely debated over the years. Concerns raised by politicians, consumer groups and parents have placed pressure on many countries to look at ways of reducing the amount of exposure children have to food advertising. The responsibility of protecting children does not solely rest on government; parents surely have the biggest roll to play.

As Chan and McNeal (2003:155) clearly pointed out, "*Parents can educate children about television advertising through active participation in children's viewing and establishing rules to guide children's viewing of television and processing of television commercials*." The way parents perceive TV food advertising aimed at

children will determine their level of interaction in limiting the “threat” posed by advertisers.

In the following chapter, the empirical study conducted to assess parents’ perceptions towards TV food advertising directed at children is discussed. The survey questionnaire used in the empirical study is presented and the perceptions of South African parents with children aged between 3 and 14 years are discussed. The survey is confined to a specific crèche in the town of Vanderbijlpark, in South Africa.

CHAPTER 3: RESEARCH METHODOLOGY AND RESULTS

3.1 INTRODUCTION

In this chapter, the results of the empirical study measuring parents' perception of television food advertising directed at children will be discussed. The empirical study, which comprised a questionnaire as measuring instrument, was conducted at a crèche in Vanderbijlpark, South Africa.

Questionnaires developed by Morley (2007:5-14), PEAK GROUP (2007:8-49) and Eagle *et al*. (2002:19-21) were adapted to form the basis of this research questionnaire. Frequently voiced criticism identified in the literature, regarding advertising to children was also used in the formulation of this questionnaire.

The completed questionnaires were analysed by the Statistical Consultation Services of the North-West University, Potchefstroom campus, and the descriptive statistics is presented in table format. The mean ($\bar{x}$) was used as a measure of central tendency and the standard deviation (s) is used to indicate the scatter of data around the mean. The reliability of the questionnaire is assessed by calculating the Cronbach alpha coefficient and the effect size values (d-values), as discussed by Ellis and Steyn (2003:51-53), is used to indicate if there is a practical significance between any demographical variable regarding the constructs.

3.2 RESEARCH METHODOLOGY

A review of current literature or secondary data, which was conducted in Chapter 2, provided the basis for defining the research problems and objectives. For this study, primary data was collected by using a survey questionnaire as the research instrument.

3.2.1 Questionnaire design

The questions used in this questionnaire were drawn from three individual studies: Morley (2007:5-14); PEAK GROUP (2007:8-49) and Eagle *et al*. (2002:18-21). The questions chosen were adapted to support the chosen research methodology and the South African environment. Frequently voiced criticism relating to advertising to children, as identified in the literature, was also used during the formulation of this questionnaire.

The questionnaire used was designed to measure parents' perception regarding TV food advertising aimed at children. The questionnaire in this study consists of five sections. The first section, Section A, is aimed at gathering demographical data of the respondents. The next three sections, Sections B, C and D; are aimed at measuring the parents' perceptions and concerns about television food advertising directed at children. From the 43 variables, 15 constructs were identified. These include:

- Childhood obesity
- Behaviour and effect
- Influence on food preference
- Children's understanding of advertising
- Advertising ethics
- Advertising practices
- Intra-family conflict
- Current regulations

- Regulating authorities
- Role of government
- Banning of all food advertising
- Banning of unhealthy food advertising
- Benefits of advertising
- Food advertising concerns
- Advertising volume and content

The last section, Section E, contains exploratory questions regarding other known media used in advertising to children. This section was included in this questionnaire in order to identify potential areas for future studies relating to the advertising of food to children.

The questionnaire comprises mainly close-ended questions, which includes multiple-choice questions and scale questions. A 4-point Likert scale was chosen for the scale questions to eliminate any indecision or neutrality from the respondents.

Prior to use, the questionnaire was reviewed by the designated study leader for completeness and applicability. The Statistical Consultation Services of the North-West University, Potchefstroom campus, also reviewed the questionnaire to ensure that it was statistically sound and statistical analysis will be possible.

3.2.2 Study population

The target population for this study were the parents of children attending the Tjokkerland crèche in Vanderbijlpark, South Africa. Furthermore, the survey was confined to parents with children aged 3 to 14 years. Tjokkerland is not only the largest crèche in Vanderbijlpark but also the largest crèche in the Vaal Triangle; looking after 622 children aged 0 to 14 years.

Since the study was aimed at parents with children aged 3 to 14 years, the composition of each class was obtained from the management of the crèche in order to identify the classes with the appropriate aged children. Thirteen classes were identified as having children within the specified age category, representing 332 children. Availability sampling was then chosen as the sampling method for this study.

3.2.3 Data collection

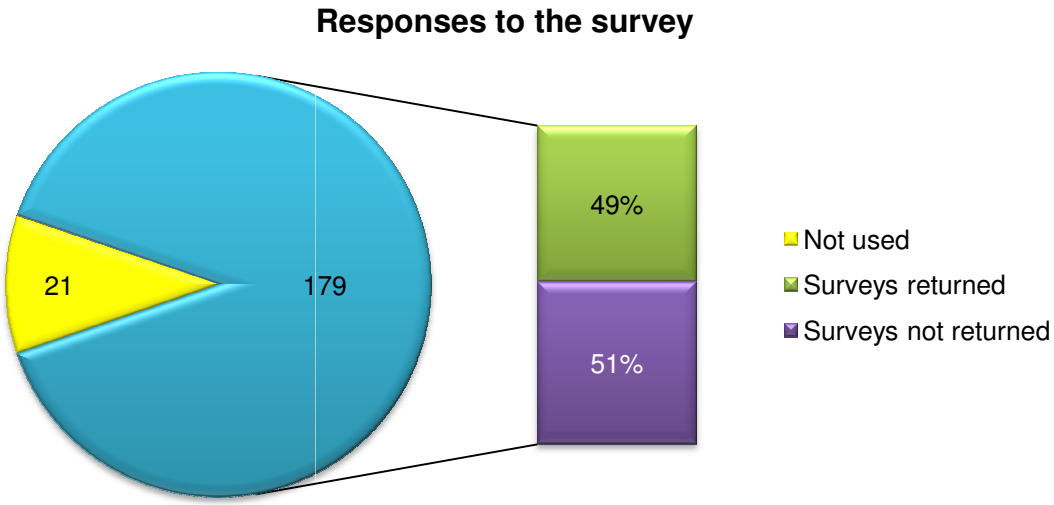
Permission to conduct the survey was obtained from both the Director and the Manager of Tjokkerland crèche. The Department of Education was also formally notified of the intended survey to ensure the necessary ethical considerations were met. The teachers of the appropriate classes at the crèche were used to distribute and collect the survey questionnaires. The Manager of the crèche held a briefing session with the teachers that would be assisting in the distribution and collection of the questionnaire, whereby each teacher was then also given a set of “Notes” as a guide, to ensure uniformity and common understanding on how to distribute and collect the survey questionnaires. The survey questionnaire was given to the parents by hand and collected back from them by hand. Teachers followed up on a daily basis, over the duration of the survey, to ensure that the maximum number of surveys was returned by the due date. A total of 88 questionnaires were received back for analysis (see 3.2.4).

3.2.4 Response to the survey

Based on the composition of the classes, a total of 200 questionnaires were given to the teachers at Tjokkerland crèche to distribute to the parents of children aged between 3 and 14 years. From the 200 questionnaires, 109 questionnaires were returned by the cut-off date. From the 109 questionnaires returned, 21 had not been used; therefore, the sample size was considered to be 179 parents. A total number of

88 questionnaires were analysed and used in this study. The response rate for this questionnaire was therefore 49%, as reflected in Figure 3.1.

Figure 3.1: Representation of the responses to the survey



3.2.5 Statistical analysis

Data collected from the surveys were statistically analysed with the SAS program (SAS Institute Inc release 9.1, 2005). Descriptive statistics (mean and standard deviations) were used to analyse the data. The Cronbach alpha coefficients were calculated for each of the constructs to determine reliability of the data and to serve as a measure of internal consistency amongst the items (Schmitt, 1996:351).

The effect size values were calculated in order to determine the practical significance of the relationships. Effect size values indicate whether the differences in the means, obtained from the results, are important. An effect size value of at least 0.2 but less than 0.5 signifies a small effect; between 0.5 and 0.8 signifies a medium effect; while an effect size value of greater than 0.8 signifies a large effect (Ellis & Steyn, 2003:51-53). Furthermore, t-tests were used to determine differences between variables.

3.3 RESULTS AND DISCUSSION

3.3.1 Demographical information of respondents

Section A in the questionnaire measured the demographical information of the respondents. The information requested was: age; gender; population group; marital status; number of children 14 years and younger; age and gender of children; number of TVs in the household; internet access at home and highest academic qualification.

3.3.1.1 Age of respondents

The purpose of this question was to determine the age classification of the respondents and it was included because different age groups could have different perceptions regarding TV food advertising directed at children. The results are shown in Table 3.1.

Table 3.1: Age group of the respondents

Age group	Count	Percentage
18 - 24	3	3.4
25 - 34	43	48.9
35 - 44	40	45.4
45 - 54	2	2.3
Total	**88**	**100**

Most of the respondents who participated in the study were between the age of 25 and 34 years (48.9%), followed by respondents aged between 35 and 44 years (45.4%). Since the survey was aimed at parents with young children, children between 3 and 14 years of age, it is understandable that 3.4% of the respondents were younger than 25 years of age and 2.3% were older than 44 years of age.

3.3.1.2 Gender of respondents

The respondents were asked to indicate their gender as part of the demographic data. Since availability sampling was done, no predetermined gender composition was set. The results are shown in Table 3.2.

Table 3.2: Gender of respondents

Gender	Count	Percentage
Male	14	15.9
Female	74	84.1
Total	**88**	**100**

The majority of the respondents (84.1%) were female. This is also a representation that the mothers is more likely to collect the children from the crèche; and therefore were requested by the teachers to complete the questionnaire.

3.3.1.3 Racial group of respondents

The respondents were asked to indicate their racial group classification according to the South African racial group description. The results are shown in Table 3.3.

Table 3.3: Racial group of respondents

Gender	Count	Percentage
African	15	17.1
White	72	81.8
Indian / Asian	0	0
Coloured	1	1.1
Total	**88**	**100**

The majority of the respondents who participated in the study were White (81.8%). No respondent of Indian or Asian origin participated in the study, while only one respondent (1.1%) was Coloured. Although Africans represented the second largest racial group, they only constitute 17.1% of the total number of respondents.

3.3.1.4 Marital status of the respondents

The respondents were asked to indicate their marital status. Should it be felt necessary, this demographical information will allow an analysis to be made between "single parents" and "couples". The results are shown in Table 3.4.

Table 3.4: Marital status of respondents

Marital status	Count	Percentage
Single	9	10.2
Married / Living together	70	79.6
Divorced	6	6.8
Widow(er)	3	3.4
Total	**88**	**100**

The majority of the respondents (79.6%) who participated in the study are either married or living together. The second highest category was that of single parents (10.2%), followed by parents who are divorced (6.8%). Widow(er) made up the smallest category of respondents (3.4%).

3.3.1.5 Number of children 14 years and younger

The respondents were asked to indicate how many of their children were 14 years and younger. Given that the questionnaire was only distributed to parents with children 3 years and older, there was no need to make reference to the minimum age. The results are shown in Table 3.5.

Table 3.5: Number of children 14 years and younger

Number of children	Count	Percentage
1	29	33
2	50	58
3	7	8
4	1	1
Missing	1	1
Total	**88**	**100**

The majority of the respondents (58%) who participated in the study have two children between 3 and 14 years of age. The second highest category was that of respondents with only one child within the specified age category (33%), while 8% have three children within the specified age category. Although one of the respondents did not specify the number of children they have within the ages category, they specified the age and gender of their child / children in the following question. The number of children could have a bearing on the perceptions that parents have with regard to TV food advertising directed at children.

3.3.1.6 Age and gender of children

The respondents were asked to indicate the age and gender of their children. Not only does this provide more information on the children, it also validates that the questionnaire can be included in the analysis. All respondents have at least one child between 3 and 14 years of age.

3.3.1.7 Number of TVs in the household

The respondents were asked to indicate the number of televisions they have in their home. Since the number of TVs in the household could be a catalyst to the amount of television children watch and therefore the amount of exposure and influence it might have on them, it is considered an appropriate and valuable question to be asked. Should it be felt necessary, this information will allow further analysis to be conducted. The results are shown in Table 3.6.

Table 3.6: Number of TVs in the household

Number of TVs	Count	Percentage
1	36	40.9
2	33	37.5
3	10	11.4
4	5	5.7
5	3	3.4
6	1	1.1
Total	**88**	**100**

Surprisingly, the majority of the respondents (40.9%) indicate that they have only one television in their home. Respondents with two televisions in their home are the second largest group (37.5%). Almost a quarter of the respondents (21.6%) indicated

that they have more than two televisions in their home. Although not substantiated, the presence of more than two televisions in the home enables the children to watch television programs not commonly watched by the parents.

3.3.1.8 Internet access at home

The respondents were asked to indicate if they have access to the internet when at home. A number of advertisers make reference to websites during their TV adverts, where children can play interactive games and join children's clubs. The results are shown in Table 3.7.

Table 3.7: Access to the internet when at home

Internet at home	Count	Percentage
Yes	39	44.3
No	49	55.7
Total	**88**	**100**

The majority of the respondents (55.7%) indicated that they do not have access to the internet; therefore, their children will not have access to advertised websites when at home.

3.3.1.9 Highest level of academic qualification of respondents

The respondents were asked to indicate the highest academic qualification they have obtained. Although it could be implied that the level of education influences parents' perceptions about "*junk food*" and the effects of advertising on children; this was not tested and the request for this information was purely for the sake of completeness. The results are shown in Table 3.8.

Table 3.8: Academic qualification of respondents

Academic qualification	Count	Percentage
Lower than Grade 12	1	1.1
Matric / Grade 12	31	35.2
Certificate	13	14.8
Diploma (Technical College or Technikon)	28	31.8
University Degree	8	9.1
Post Graduate Degree	6	6.8
Missing	1	1.1
Total	**88**	**100**

Most of the respondents (83%) indicated a Diploma to be their highest qualification. This category is made up of the following three groups: Matric / Grade 12 (35.2%), a Diploma from a technical College or Technikon (31.8%) and a Certificate after completing their secondary school (14.8%), respectively. One respondent did not indicate their highest academic qualification.

3.3.2 Results per construct

The survey results represent the parents' perceptions towards TV food advertising directed at children, related to the constructs discussed in section 3.2.1. The results of the survey, per construct, are presented in Table 3.9. The data are displayed in the following way:

- n – The number of respondents for all questions in the particular constructs.
- Mean ($\bar{x}$) – The arithmetic mean score based on the 4-point Likert scale, for all the questions in the particular construct.
- Standard Deviation (s) – The standards deviation from the mean. The standard deviation indicates the extent of agreements between the

respondents. The lower the deviation, the higher the degree of agreement (Levine *et al.*, 2008:106).

On a 4-point Likert scale, the low values (1 and 2) represent disagreement with the question and high values (3 and 4) represent agreement with the question. In this study, low values (1 and 2) also represent low levels of concern or influence, while high values (3 and 4) represent high levels of concern or influence. Therefore, average values above two represent higher levels of concern, strong influence and agreement with the questions in the construct; and the higher the value, the stronger is the agreement, level of concern and influence.

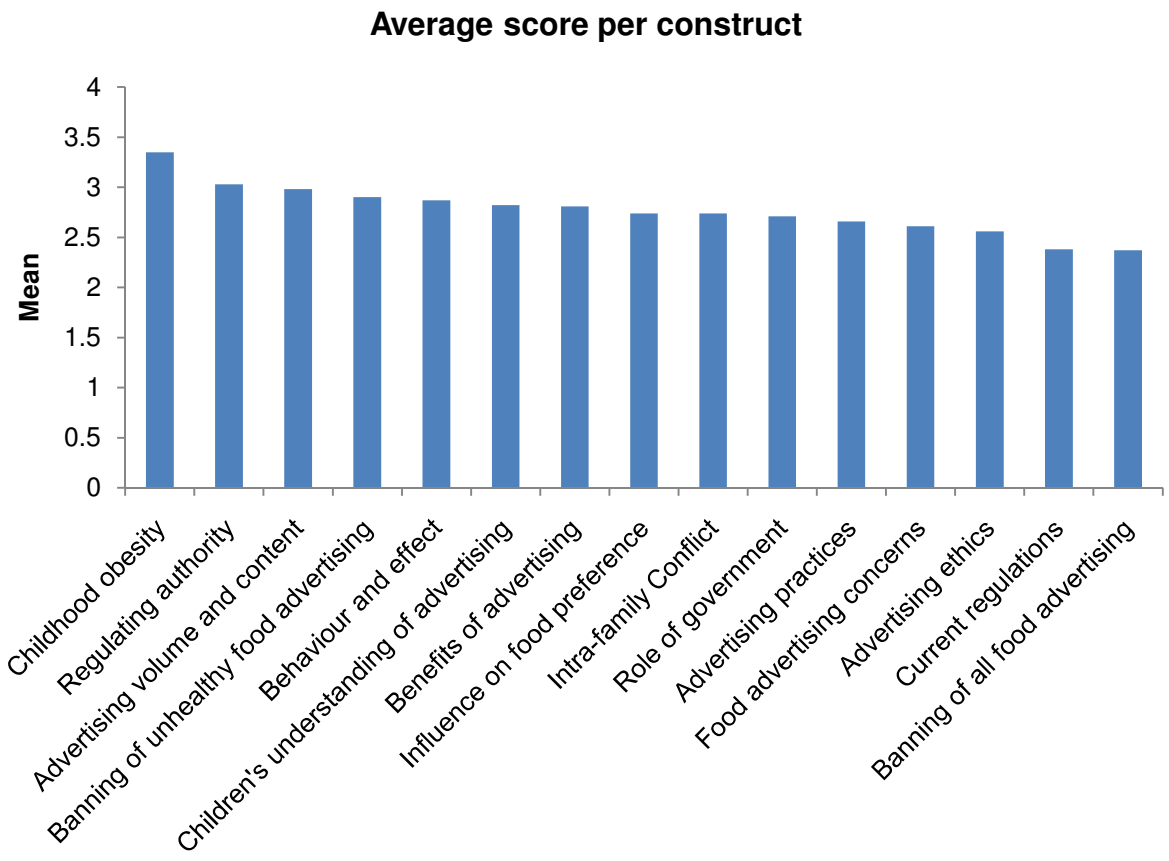
Table 3.9: Survey results per construct

Constructs	n	Mean ($\bar{x}$)	Std Dev. (s)
Childhood obesity	87	3.35	0.72
Behaviour and effect	88	2.87	0.78
Influence on food preference	88	2.74	0.91
Children's understanding of advertising	85	2.82	0.76
Advertising ethics	85	2.56	0.99
Advertising practices	88	2.66	1.04
Intra-family conflict	86	2.74	0.82
Current regulations	86	2.38	0.69
Regulating authority	84	3.03	0.64
Role of government	87	2.71	0.77
Banning of all food advertising	87	2.37	0.74
Banning of unhealthy food advertising	86	2.90	0.74
Benefits of advertising	87	2.81	0.73
Food advertising concerns	88	2.61	0.99
Advertising volume and content	85	2.98	0.70
Average	**86**	**2.79**	**0.80**

The average score across all the constructs is 2.79, indicating that the respondents are in agreement with the statements; perceive a moderate degree of influence and express some concern toward TV food advertising aimed at children. On average, the standard deviation across the constructs is 0.80, indicating that the individual responses are widely dispersed around the mean.

The highest average response was for the construct *Childhood Obesity* ($\bar{x}$ = 3.35) and the lowest average was for the construct *Banning of all food advertising* ($\bar{x}$ = 2.37). The average scores are displayed from highest to lowest in Figure 3.2.

Figure 3.2: Survey responses per construct



3.3.2.1 Analysis of constructs relating to acceptability of advertising food to children

In assessing parents' perceptions of whether advertising food to children is acceptable, the following constructs were deemed appropriate to evaluate this perception. Table 3.10 reflects the results per question for each of those constructs.

From Table 3.10, it can be seen that the majority (71%) of the parents perceive it ethically and morally wrong for food companies to try to influence children's food preferences through advertising campaigns; while 64% of the parents expressed concern about the advertising of unhealthy food to children during their TV viewing hours. Parents were neutral (50%) to the advertising of general food products to children, although 63% of the parents expressed concern about the number of advertisements directed at children; the amount of sugar and fat products being advertised to children (80%) and the amount of additives in foods being advertised to children (77%). Furthermore, 60% of the parents expressed concern about the use of personalities to promote food products to children, while 67% expressed concern about advertisers promoting free gifts with the products being advertised. Just over half of the parents (51%) did, however, not express concern if advertisers only mentioning the healthy aspects of the products being advertised and not the unhealthy aspects. A high percentage (83%) of parents perceive that advertisements provide accurate information about the nutritional value of the foods being advertised and 69% of the parents said that advertising encourages discussion at home, between themselves and their children.

Table 3.10: Parents' perception on whether it is acceptable to advertise food to children

Construct	Questions (in summary)	n	$\bar{x}$	Disagreement / low concern / low influence	Agreement / high concerned / high influence
Advertising ethics	It is ethically and morally acceptable to advertise to children	86	2.91	71%	29%
	Advertising provides accurate information about nutritional quality	87	2.22	68%	32%
Advertising practices	Use of popular personalities / characters	88	2.66	40%	60%
	Promotion of free toys or gifts	88	2.92	33%	67%
	Promotion of healthy aspects only	88	2.40	51%	49%
Benefits of advertising	Adverts provide information about adverts	87	2.97	17%	83%
	Adverts encourages discussion at home	87	2.66	31%	69%
Food advertising concerns	Advertising of food during children's viewing hours	88	2.47	50%	50%
	Advertising of unhealthy food during children's viewing hours	88	2.75	36%	64%
Advertising volume and content	Amount of TV advertisements directed at children	87	2.83	37%	63%
	Amount of sugar and fat in food products advertisements	86	3.06	20%	80%
	Amount of additives in foods being advertised to children	86	3.02	23%	77%

3.3.2.2 Analysis of constructs relating to the influences of television food advertising on children's food preferences and eating habits

In assessing parents' perceptions on whether TV food advertising influences children's food preferences and eating habits, the following constructs were deemed appropriate to evaluate this perception. Table 3.11 reflects the results per question for each of those constructs.

Table 3.11: Parents' perception on whether television food advertising influences children's food preferences and eating habits

Construct	**Questions (in summary)**	**n**	$\bar{x}$	**Disagreement / low concern / low influence**	**Agreement / high concerned / high influence**
Behaviour and effect	Influence unhealthy eating habits	88	2.93	30%	70%
	Sugar snacks cause tooth decay	88	2.91	31%	69%
	Snacks impacts on children eating their meals	88	2.77	36%	64%
Influence on food preference	Influence children's LIKING for particular food	88	2.70	43%	57%
	Influence children's REQUESTS for particular food	88	2.77	40%	60%
Children's understanding of advertising	Distinguishing programmes from advertisements	87	2.95	22%	78%
	Understand the commercial intent	86	2.41	58%	42%
	Tricks and gimmicks	87	3.09	15%	85%
Intra-family conflict	TV advertising causes pestering	87	2.76	32%	68%
	Encourages children wanting products they do not need	88	2.95	24%	76%
	Advertising to children leads to family conflict	87	2.51	51%	49%

From Table 3.11, 70% of the parents perceive that TV food advertising influences children's food preferences while 64% perceive that the advertising of snack foods makes it harder to get children to eat their meals. Interestingly, only 57% of the parents believe that advertising influences children's liking to certain food products; however, 60% believe that advertising influences children's requests for that particular food product. Children's understanding of advertising is always in question and 58% of the parents believe that children do not understand the commercial intent, while 78% perceive that children can distinguish between advertisements and normal programming. A substantial amount of parents (68%) further believe that advertisements cause children to pester them for certain food products, while 78% of parents believe that TV food advertisements encourage children to want products they do not need.

3.3.2.3 Analysis of constructs relating to parents' perception of South Africa's regulation on TV food advertising to children

In assessing parents' perceptions regarding South Africa's regulations of TV food advertising to children, the following constructs were deemed appropriate to evaluate this perception. Table 3.12 reflects the results per question for each of those constructs.

From Table 3.12, it can be seen that 76% of the parents believe that stronger restrictions of TV food advertising during children's TV viewing hours are required and 90% of the parents believe that the industry should not be regulating themselves. Parents' further perceive (87%) that the schools should play a role in educating children on the pros and cons of advertising. An overwhelming amount of the parents' (94%) believes that action should be taken against anyone that breaches the regulations, not only when the public complains. Although the majority of parents would like to see a ban on the advertising of unhealthy food (83%), only 59% of the parents perceive there to be a need to ban all food advertising directed at children.

Table 3.12: Parents' perception of South Africa's regulations on TV food advertising to children

Construct	Questions (in summary)	n	$\bar{x}$	Disagreement / low concern / low influence	Agreement / high concerned / high influence
Current regulations	Regulations on TV advertising to children.	86	2.44	49%	51%
	Effectiveness of current regulations	87	2.33	59%	41%
Regulating authority	Introduction of stronger restrictions on food adverts	87	2.94	24%	76%
	Lack of government control allows abuse	88	2.88	27%	73%
	Banning use of popular programme characters	87	2.72	45%	55%
	Regulation of TV advertising (not industry)	87	3.14	10%	90%
	The role of schools in preparing children for adverts	87	3.15	13%	87%
	Breaches of advertising regulations	85	3.20	6%	94%
Role of government	Government's regulation of TV programming	88	2.49	48%	52%
	Limits on time devoted to advertisements	87	2.94	22%	78%
Banning of all food advertising	A total ban on ALL food advertising	87	2.00	85%	15%
	Ban ALL food advertisements during children's viewing hours	87	2.39	55%	45%
	Ban ALL food advertisements aimed at children	87	2.71	41%	59%
Banning of unhealthy food advertising	Allow current TV advertisements to children	86	2.20	64%	36%
	Reduce the adverts to children	87	2.99	16%	84%
	Total ban on advertising of unhealthy foods	87	3.01	25%	75%
	Ban of unhealthy food advertisements	87	3.14	18%	82%
	Ban on unhealthy food advertisements aimed at children	87	3.14	17%	83%

3.3.3 Reliability and validity of the questionnaire

3.3.3.1 Reliability

The reliability of a test refers to the consistency of scores obtained by the same person when they are re-examined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions (Anastasi & Urbina, 1997:84).

According to Santos (1999), one of the most popular reliability statistics is Cronbach's alpha, as published by the mathematician Cronbach in 1951. The Cronbach alpha coefficient is based on the average correlation of variables within a test and is used to determine the internal consistency of the questions (SAS Institute, 2005:295). In determining the various constructs set out in the questionnaire, Cronbach alpha coefficients were calculated (Schmitt, 1996:350). The greater the Cronbach alpha coefficient, the more reliable is the scale. A Cronbach alpha coefficient greater than 0.7 could be interpreted, that the construct is reliable and internally consistent (Schmitt, 1996:351). It can be further interpreted that the questions effectively measure the outcome of the construct.

Kline, as stated in Field (2007:668), however, reasons that with attitudinal or behavioural constructs, an alpha coefficient of 0.58 is sufficient and that such data is suitable to use for subsequent analytical scrutiny. With regard to other data types, Kline supports the need for an alpha coefficient greater than 0.7. Table 3.13 shows the reliability and internal consistency within the different constructs of this study.

Table 3.13: Cronbach alpha coefficients

Constructs	Cronbach alpha
Childhood obesity	0.60
Behaviour and effect	0.85
Influence on food preference	0.93
Children's understanding of advertising	0.58
Advertising ethics	0.50
Advertising practices	0.81
Intra-family conflict	0.84
Current regulations	0.71
Regulating authority	0.85
Role of government	0.33
Banning of all food advertising	0.78
Banning of unhealthy food advertising	0.64
Benefits of advertising	0.70
Food advertising concerns	0.82
Advertising volume and content	0.86

Ten constructs measured in the questionnaire had a Cronbach alpha coefficient equal or greater than 0.7 and could thus be regarded as reliable in measuring the outcome, as defined by Schmitt (1996:351). These were: *Behaviour and effect* (0.85), *Influence on food preference* (0.93), *Advertising practices* (0.81), *Intra-family conflict* (0.84), *Current regulations* (0.71), *Regulating authorities* (0.85), *Banning of all food advertising* (0.78), *Extent of concern* (0.82), Benefits of advertising (0.70) and *Advertising volume and content* (0.86).

The five constructs that had a lower Cronbach alpha ($\alpha < 0.70$) and could therefore not be regarded as internally consistent and reliable in measuring the outcome of the constructs, were: *Childhood obesity* (0.60), *Children's understanding of advertising* (0.58), *Advertising ethics* (0.50), *Banning of unhealthy food advertising* (0.64) and *Role of government* (0.33). In this regard, Field (2007:667-669) states that when low alpha coefficients are returned, the results should be interpreted by bearing in mind that these constructs are less likely to feature in future studies (or repeat studies). However, the fact that these constructs are less likely to resurface in future research, does not discard them of their importance from the present study. Since the construct *Role of government* is low *(α = 0.33)* and reliability could not be assured, a decision was taken to analyse the two items that made up that construct, separately, namely: *Government's regulation of TV programming* and *Limits on time devoted to advertisements*.

3.3.3.2 Validity

The validity of a test concerns what the test measures and how well it does so. Therefore, if the test is considered valid, it means that it is measuring what it was intended to measure. While reliability is influenced only by unsystematic errors of measurement, the validity of a test is, however, affected by unsystematic as well as systematic (constant) errors. For this reason, a test may be reliable without being valid, but it cannot be valid without being reliable (Anastasi & Urbina, 1997:113).

Construct validity can include measures of criterion-related validation, convergent validations and content validation. When evaluating content validity, it can be done subjectively or empirically. To empirically validate a construct, the statistical technique exploratory factor analysis can be used to determine if the questions are represented by one factor (Anastasi & Urbina, 1997:113). A factor loading of 0.40 is considered to be satisfactory, while a cumulative variance of 60% or higher is regarded to be a “good fit of the data” (Shukla, 2004:3-7).

The Eigenvalue-greater-than-one rule (MINEIGEN criterion) is one of the most popular heuristics to determine the number of factors needed to explain correlations amongst the variables.

To determine whether a factor analysis may be appropriate as statistical application, Kaiser's measure of sample adequacy (MSA) should be computed. The MSA gives an indication of the inter-correlations among variables and this index ranges from 0 to 1, reaching 1 when each variable is perfectly predicted by the other variables (Tabachnick & Fidell, 2001:589).

According to Field (2007:640), Kaiser's measure of sample adequacy (MSA) can be interpreted based on the following guidelines in Table 3.14.

Table 3.14: Kaiser's measure of sample adequacy (MSA) guidelines

MSA	Interpretation
$\geq$ 0.80	meritorious
0.70	middling
0.60	mediocre
0 50	miserable
< 0.50	unacceptable

3.3.4 Analysis of results per construct

In the following section, each of the constructs will be briefly discussed. Construct validity was empirically measured using factor analysis and Kaiser's measure of sample adequacy (MSA) was computed to establish the inter-correlations amongst the variables. Since a number of variables were grouped together to form the various constructs, variance of communalities was also computed in order to establish the percentage of variance retained in the constructs. The results from this analysis are expressed in Table 3.15.

Table 3.15: Summary of statistical analysis per construct

Constructs	MSA	Cumulative variance explained	Number of factors retained by the MINEIGEN criterion	Final Communality	
				Min	Max
Childhood obesity	0.50	0.69	1	0.67	0.67
Behaviour and effect	0.67	0.77	1	0.64	0.86
Influence on food preference	0.50	0.94	1	0.94	0.94
Children's understanding of advertising	0.52	0.57	1	0.12	0.80
Advertising ethics	0.50	0.65	1	0.65	0.65
Advertising practices	0.69	0.72	1	0.64	0.79
Intra-family conflict	0.71	0.76	1	0.68	0.81
Current regulations	0.50	0.78	1	0.78	0.78
Regulating authority	0.85	0.58	1	0.37	0.71
Role of government	0.50	0.60	1	0.60	0.60
Banning of all food advertising	0.64	0.70	1	0.57	0.82
Banning of unhealthy food advertising	0.82	0.69	1	0.41	0.86
Benefits of advertising	0.50	0.77	1	0.77	0.77
Food advertising concerns	0.50	0.85	1	0.85	0.85
Advertising volume and content	0.71	0.79	1	0.71	0.83

Based on the MSA guidelines provided in Table 3.14, the MSA results obtained for the majority of the constructs, as shown in Table 3.15, is considered miserable and barely acceptable. These include: Childhood obesity (0.50); Influence on food preference (0.50); Children's understanding of advertising (0.52); Advertising ethics

(0.50); Current regulations (0.50); Role of government (0.50); Benefits of advertising (0.50) and Extent of concern (0.50). A further three constructs were considered mediocre since their MSA was above 0.60 but below 0.70. Although all constructs has a MSA that is considered acceptable for the use of factor analysis, only four constructs are classified adequate or commendable. The constructs considered adequate are: Intra-family conflict (0.71) and Advertising volume and content (0.71). The constructs considered commendable are: Regulating authority (0.85) and Banning of unhealthy food advertising (0.82).

Childhood Obesity: This construct measures parents' awareness and perceptions regarding the rise in childhood obesity. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 69% (0.69) of the variation was retained in the one factor. This is deemed acceptable since it is above 60% (0.60). The Final Communalities showed no variance, as its minimum and maximum values were 0.67.

Behaviour and effect: This construct measures parents' perceptions with regard to the effect that TV food advertising has on the health and eating habits of children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 77% (0.77) of the variation was retained in the one factor. The Final Communalities for this construct varied between 0.86 and 0.64.

Influence on food preference: This construct measures parents' perceptions on whether TV food advertising influences children's food preferences and requests. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 94% (0.94) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.94.

Children's understanding of advertising: This constructs measures parents' perceptions on whether children between the age of 3 and 14 years can identify advertisements (distinguish advertisements from normal programming) and

understands their commercial intent. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and only 57% (0.57) of the variation was retained in the one factor. This is deemed unacceptable since it is below 0.6 (or 60%). The Final Communalities varied between 0.80 and 0.12.

Advertising ethics: This construct determines whether parents' perceive advertising campaigns targeting children, to be truthful and ethically acceptable. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 65% (0.65) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.65.

Advertising practices: This construct measures parents' perceptions as to whether the methods employed by advertisers, when promoting food, is considered acceptable and ethical. This construct relates to advertisers using, for example, personalities and free toys to promote food to children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 72% (0.72) of the variation was retained in the one factor. The Final Communalities varied between 0.79 and 0.64.

Intra-family conflict: This construct measures parents' perceptions as to whether advertising directed at children contributes to intra-family conflict as a result of children requesting product that parents do not want to buy. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 76% (0.76) of the variation was retained in the one factor. The Final Communalities varied between 0.81 and 0.68.

Current regulations: This construct measures parents' perceptions of South Africa's current regulation, regarding TV advertising of food to children under the age of 14 years. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 78% (0.78) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.78.

Regulating authority: This construct measures parents' perceptions regarding who should be responsible for regulating advertising aimed at children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 58% (0.58) of the variation was retained in the one factor. This is deemed unacceptable since it is below 0.6 (or 60%). The Final Communalities varied between 0.71 and 0.37.

Role of government: This construct measures parents' perceptions concerning the role that government should play with regard to advertising to children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 60% (0.60) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.60. Since this construct has a low Cronbach alpha coefficient *(α* = 0.33) the two items that make up this construct will be analysed separately, namely: *Government's regulation of TV programming*; and *Limits on time devoted to adverts*.

Banning of all food advertising: This construct measures parents' views regarding the banning of all food advertising on television. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 70% (0.70) of the variation was retained in the one factor. The Final Communalities varied between 0.82 and 0.57.

Banning of unhealthy food advertising: This construct measures parents' views regarding the banning of only unhealthy food advertising on television. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 69% (0.69) of the variation was retained in the one factor. The Final Communalities varied between 0.86 and 0.41.

Benefits of advertising: This construct measures parents' perceptions as to what has been identified in the literature as the benefits of advertising to children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion

and 77% (0.77) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.77.

Food advertising concerns: This construct measures parents' perceived level of concern regarding the advertising of food to children. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 85% (0.85) of the variation was retained in the one factor. The Final Communalities showed no variance, as its minimum and maximum values were 0.85.

Advertising volume and content: This construct measures parents' perception on the amount of TV advertising directed at children and the content of the adverts. Since not all TV food advertising directed at children is of products that are potentially harmful (unhealthy) to children, some advertisements do promote positive behaviour and healthy eating habits. Results from the factor analysis revealed that one factor was retained by the MINEIGEN criterion and 79% (0.79) of the variation was retained in the one factor. The Final Communalities varied between 0.83 and 0.71.

3.3.5 Statistical and practical significance of results

A test for statistical significance (p-values) and effect size (d-values) was calculated to determine the relationship between the demographical variables and the constructs measuring parents' perception towards TV food advertising directed at children. According to Ellis and Steyn (2003:51), statistical significance is determined when the differences between the mean values are small ($p < 0.05$); however, statistical significance tests tend to have a small p-value as the size of the data set increases.

The effect size (d-value) is a measure of practical significance and is independent of the sample size. The effect size (d-value) is interpreted according to Cohen's guidelines:

- Small effect: d-value of at least 0.2 but less than 0.5
- Medium effect: d-values between 0.5 and 0.8, and
- Large effect: d-values of 0.8 and higher

According to Field (2007:32) and Ellis and Steyn (2005:51-53), results with medium effect can be regarded as visible difference, while results with a large effect can be regarded as practical significant.

In this study, since availability sampling was the chosen sampling method and random sampling was not done, the interpretation of the results was done according to Cohen's effect sizes (d-values), indicating practical significance. Therefore, no inferential statistics were interpreted, although p-values are reported as if random was done for completeness sake.

3.3.5.1 Relationship between demographical variable Age and the various constructs

The age of the respondents were grouped into two age categories, namely: 18 to 34 years of age; and 35 to 54 years of age. In Table 3.16, the mean survey result ($\bar{x}$) and the standard deviation (s) for the age categories are displayed; as well as the p-values and d-values for each of the retained constructs. Statistical and practical significance was tested across all the constructs and it is evident from the effect sizes (d-values) that the differences in means were not practically significant, as d < 0.8. Respondents aged 18 to 34 years therefore do not feel different to the older respondents regarding any of the constructs.

Table 3.16: Effect of respondent's Age on the constructs

	18 – 34 years			35 – 54 years				
Constructs	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	***p*** [(a)]	***d***
Childhood obesity	46	3.26	0.64	41	3.45	0.55	0.14	0.30
Behaviour and effect	46	2.78	0.73	42	2.98	0.62	0.17	0.28
Influence on food preference	46	2.76	0.91	42	2.71	0.86	0.81	0.05
Children's understanding of advertising	46	2.75	0.56	42	2.89	0.55	0.26	0.24
Advertising ethics	46	2.25	0.65	42	2.10	0.86	0.35	0.18
Advertising practices	46	2.65	0.96	42	2.67	0.80	0.94	0.02
Intra-family conflict	46	2.65	0.75	42	2.84	0.65	0.21	0.25
Current regulations	46	2.43	0.61	41	2.34	0.62	0.48	0.15
Regulating authority	46	2.95	0.48	42	3.03	0.58	0.52	0.13
Government's regulation of TV programming	46	2.43	0.83	42	2.55	0.89	0.54	0.13
Limits on time devoted to adverts	46	3.07	0.71	41	2.80	0.64	0.08	0.37
Banning of all food advertising	46	2.25	0.60	41	2.50	0.63	0.07	0.38
Banning of unhealthy food advertising	46	2.84	0.53	41	2.96	0.40	0.26	0.21
Benefits of advertising	45	2.73	0.90	42	2.89	0.57	0.25	0.23
Food advertising concerns	46	2.61	0.88	42	2.67	0.76	0.72	0.07
Advertising volume and content	46	3.00	0.63	41	2.92	0.63	0.53	0.14

[(a)] p-value yielded by t-test for independent groups in case of random sampling;

* denotes statistical significant at $p < 0.05$;

$^{\Delta}$ denotes medium effect;

▲ denotes large effect or practical significant

3.3.5.2 Relationship between demographical variable Gender and the various constructs

Table 3.17: Effect of respondent's Gender on the constructs

	Male			Female				
Constructs	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	***p*** [(a)]	***d***
Childhood obesity	14	3.29	0.70	73	3.36	0.58	0.70	0.11
Behaviour and effect	14	2.95	0.82	74	2.86	0.66	0.68	0.12
Influence on food preference	14	2.32	0.82	74	2.82	0.87	0.05	0.57$^{\Delta}$
Children's understanding of advertising	14	2.98	0.53	74	2.79	0.56	0.24	0.33
Advertising ethics	14	1.93	0.70	74	2.22	0.76	0.17	0.39
Advertising practices	14	2.19	0.97	74	2.75	0.84	0.05	0.58$^{\Delta}$
Intra-family conflict	14	2.74	0.71	74	2.74	0.71	0.98	0.01
Current regulations	14	2.36	0.60	73	2.40	0.62	0.82	0.06
Regulating authority	14	3.07	0.54	74	2.97	0.53	0.53	0.18
Government's regulation of TV programming	14	2.64	0.84	74	2.46	0.86	0.47	0.21
Limits on time devoted to adverts	14	2.71	0.61	73	2.99	0.7	0.15	0.39
Banning of all food advertising	14	2.45	0.56	73	2.35	0.64	0.56	0.16
Banning of unhealthy food advertising	14	2.97	0.41	73	2.88	0.48	0.47	0.18
Benefits of advertising	14	2.68	0.67	73	2.84	0.64	0.43	0.24
Food advertising concerns	14	2.29	0.89	74	2.71	0.79	0.12	0.50$^{\Delta}$
Advertising volume and content	14	2.81	0.67	73	2.99	0.62	0.36	0.27

[(a)] p-value yielded by t-test for independent groups in case of random sampling;

* denotes statistical significant at $p < 0.05$;

$^{\Delta}$ denotes medium effect;

▲ denotes large effect or practical significant

Statistical and practical significance were tested across all the constructs and it is evident from the effect sizes (d-values) shown in Table 3.17, that the differences in means between men and women are not practically significant and only a medium effect could be determined for the following three constructs: *Influence on food preference* (d=0.57), *Advertising practices* (d=0.58) and *Food advertising concerns* (d=0.50). This implies, as seen in Table 3.17, that women are more in agreement that TV food advertising influences children's food preferences; expressed more concern about food advertising to children and are more concerned about the advertising practices used, than men are. Furthermore, it was found that a small effect size (d-value) exists in four constructs, namely: *Children's understanding of advertising*; *Advertising ethics*; *Benefits of advertising*; *Advertising volume and content*.

3.3.5.3 Relationship between demographical variable Population Group and the various constructs

Looking at the relationship between the population group and the various constructs, it is evident from the effect sizes (d-values) shown in Table 3.18, that the differences in means between the African respondents and the White respondents are not practically significant and only a medium effect could be determined for the following three constructs: *Advertising ethics* (d=0.74), *Advertising practices* (d=0.50) and *Banning of all food advertising* (d=0.54). African respondents expressed more concern about the advertising practices used compared to the White respondents. African respondents were also more of the opinion that it is ethically and morally wrong for food companies to advertise food to children; while White respondents felt stronger about banning all food advertising to children. Furthermore, it was found that a small effect size (d-value) exists in seven constructs, namely: *Intra-family conflict*; *Current regulations; Regulating authorities*; *Food advertising concerns*; *Advertising volume and content*; *Government's regulation of TV programming*; *Limits on time devoted to adverts*.

Table 3.18: Effect of respondent's Race on the constructs

	African			White				
Constructs	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	***p*** [(a)]	***d***
Childhood obesity	15	3.33	0.59	72	3.35	0.61	0.90	0.03
Behaviour and effect	15	2.89	0.73	72	2.87	0.68	0.91	0.03
Influence on food preference	15	2.87	0.81	72	2.69	0.89	0.47	0.19
Children's understanding of advertising	15	2.73	0.55	72	2.70	0.57	0.53	0.18
Advertising ethics	15	2.67	0.79	72	2.08	0.71	0.01*	0.74$^{\Delta}$
Advertising practices	15	3.04	0.70	72	2.60	0.88	0.04*	0.50$^{\Delta}$
Intra-family conflict	15	2.58	0.81	72	2.77	0.69	0.39	0.24
Current regulations	15	2.57	0.62	72	2.35	0.61	0.24	0.34
Regulating authority	15	2.87	0.48	72	3.03	0.51	0.24	0.32
Government's regulation of TV programming	15	2.73	2.70	72	2.43	0.89	0.16	0.34
Limits on time devoted to adverts	15	3.07	0.59	71	2.92	0.71	0.40	0.21
Banning of all food advertising	14	2.02	0.77	72	2.44	0.57	0.06	0.54$^{\Delta}$
Banning of unhealthy food advertising	15	2.88	0.64	72	2.90	0.43	0.91	0.03
Benefits of advertising	15	2.70	0.80	71	2.82	0.61	0.58	0.16
Food advertising concerns	15	2.93	0.56	72	2.60	0.84	0.07	0.40
Advertising volume and content	15	2.83	0.59	72	2.99	0.63	0.37	0.25

[(a)] p-value yielded by t-test for independent groups in case of random sampling;

* denotes statistical significant at $p < 0.05$;

$^{\Delta}$ denotes medium effect;

▲ denotes large effect or practical significant

3.3.5.4 Significance of results between the Number of TVs on the constructs

Table 3.19: Effect of the number of TVs that respondents have on the constructs

	One TV			More than one TV				
Constructs	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	***p*** [(a)]	***d***
Childhood obesity	36	3.36	0.49	51	3.34	0.67	0.89	0.03
Behaviour and effect	36	2.95	0.69	52	2.81	0.68	0.35	0.20
Influence on food preference	36	2.60	0.78	52	2.84	0.94	0.20	0.26
Children's understanding of advertising	36	2.79	0.61	52	2.84	0.53	0.67	0.09
Advertising ethics	36	2.28	0.77	52	2.11	0.74	0.30	0.22
Advertising practices	36	2.69	0.89	52	2.64	0.88	0.82	0.05
Intra-family conflict	36	2.64	0.74	52	2.81	0.68	0.26	0.24
Current regulations	36	2.35	0.73	51	2.42	0.52	0.70	0.10
Regulating authority	36	3.08	0.49	52	2.92	0.55	0.15	0.30
Government's regulation of TV programming	36	2.44	0.84	52	2.52	0.87	0.69	0.09
Limits on time devoted to adverts	36	3.11	0.62	51	2.82	0.71	0.05	0.40
Banning of all food advertising	36	2.44	0.66	51	2.32	0.60	0.41	0.17
Banning of unhealthy food advertising	36	2.89	0.52	51	2.90	0.43	0.97	0.01
Benefits of advertising	36	2.60	0.78	51	2.96	0.48	0.02*	0.46
Food advertising concerns	36	2.67	0.78	52	2.62	0.85	0.79	0.06
Advertising volume and content	36	3.06	0.60	51	2.90	0.64	0.25	0.24

[(a)] p-value yielded by t-test for independent groups in case of random sampling;

* denotes statistical significant at $p < 0.05$;

$^{\Delta}$ denotes medium effect;

▲ denotes large effect or practical significant

Statistical and practical significance were tested across all the constructs and it is evident from the effect sizes (d-values) shown in Table 3.19, that the differences in means between the respondents with one TV and respondents with more than one TV at home are not practically significant and only a small effect size ($d < 0.5$) was found. The constructs with a small effect size were: *Behaviour and effect*; *Influence on food preference*; *Advertising ethics*; *Intra-family Conflict*; *Regulating authority*; *Limits on time devoted to adverts*; *Benefits of advertising*; and *Advertising volume and content*.

3.3.5.5 Significance of results between the Number of Children that respondents have, on the constructs

Looking at the relationship between respondents with one child compared to respondents with more than one child between the age of 3 and 14 years, it is evident from the effect sizes (d-values) shown in Table 3.20, that the differences in means between them are not practically significant and only a medium effect could be determined for the following two constructs: *Influence on food preferences* (d=0.75), and *Food advertising concerns* (d=0.57). Respondents with one child are more in agreement that TV food advertising influences children's food preferences and expressed more concern about food advertising to children than respondents with more than one child. Furthermore, it was found that a small effect size (d-value) exists in ten constructs, namely: *Childhood obesity*; *Behaviour and effect*; *Advertising practices*; *Intra-family conflict*; *Current regulations; Regulating authorities*; *Government's regulation of TV programming*; *Banning of all food advertising*; *Banning of unhealthy food advertising*; and *Benefits of advertising*.

Table 3.20: Effect of the number of children on the constructs

	One child			More than one child				
Constructs	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	***p*** [(a)]	***d***
Childhood obesity	28	3.44	0.60	58	3.32	0.60	0.36	0.21
Behaviour and effect	29	2.99	0.63	58	2.82	0.71	0.25	0.24
Influence on food preference	29	3.17	0.80	58	2.54	0.84	0.00*	0.75$^{\Delta}$
Children's understanding of advertising	29	2.56	0.60	58	2.85	0.54	0.49	0.15
Advertising ethics	29	2.09	0.68	58	2.23	0.79	0.37	0.19
Advertising practices	29	2.92	0.83	58	2.53	0.89	0.05	0.43
Intra-family conflict	29	2.89	0.63	58	2.68	0.74	0.18	0.28
Current regulations	28	2.52	0.70	58	2.35	0.54	0.29	0.23
Regulating authority	29	3.08	0.52	58	2.96	0.52	0.30	0.24
Government's regulation of TV programming	29	2.34	0.86	58	2.57	0.86	0.26	0.26
Limits on time devoted to adverts	28	3.00	0.72	58	2.91	0.68	0.60	0.12
Banning of all food advertising	28	2.51	0.62	58	2.29	0.62	0.13	0.35
Banning of unhealthy food advertising	28	2.98	0.36	58	2.85	0.51	0.18	0.25
Benefits of advertising	29	2.59	0.77	57	2.94	0.54	0.03*	0.46
Food advertising concerns	29	2.96	0.73	58	2.49	0.83	0.01*	0.57$^{\Delta}$
Advertising volume and content	28	3.03	0.65	58	2.93	0.62	0.51	0.15

[(a)] p-value yielded by t-test for independent groups in case of random sampling;

* denotes statistical significant at p< 0.05;

$^{\Delta}$ denotes medium effect;

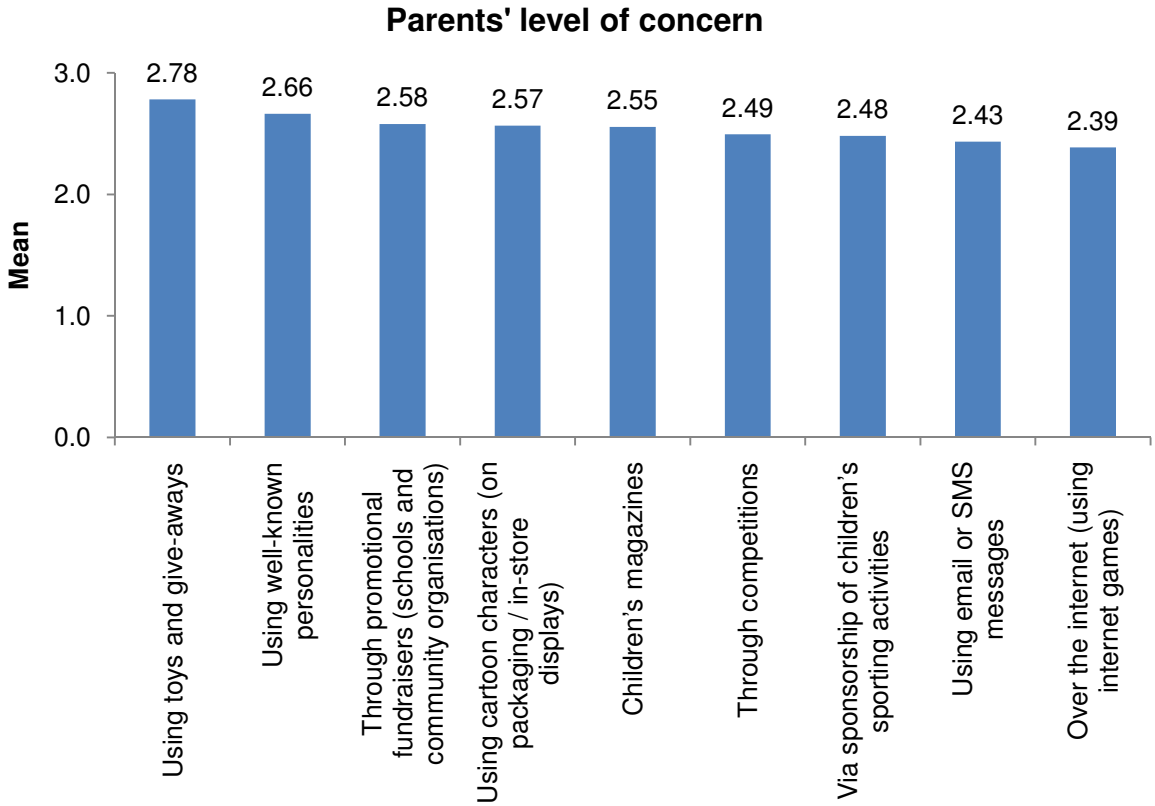
▲ denotes large effect or practical significant

3.3.6 Results from exploratory questions

Exploratory questions regarding other known media, used in the advertising of food to children, were included in the research questionnaire as Section E. This section was included in the questionnaire in order to identify potential areas for future studies. Results from this section are briefly discussed below.

Marketers use various techniques and platforms to sell food and drink products to children. Some of the key techniques, as identified from the literature review, were listed and parents were asked to state their level of concern regarding the advertising of unhealthy food to children using these techniques. Figure 3.6 reflects their level of concern.

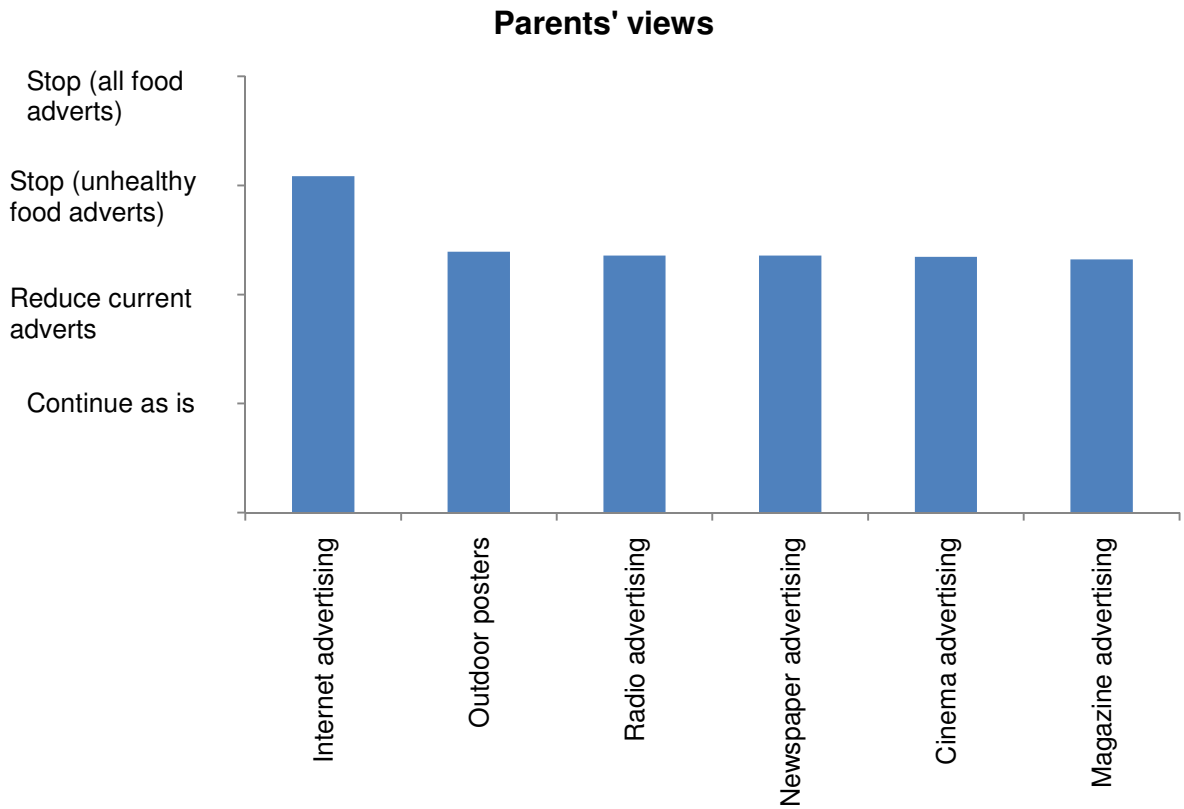
Figure 3.3: Parents' level of concern regarding advertising techniques employed by advertisers



The greatest area of concern for parents is the use of free toys and give-aways ($\bar{x} = 2.78$) and the lowest is the use of internet games ($\bar{x} = 2.39$). This result supports the responses received from the open ended question in the survey. From the responses received to that question, the majority of the parents listed the use of free toys as their greatest concern about TV food advertising. Overall, parents only expressed moderate concern regarding the deployment of these techniques.

Children are exposed to food advertising in a number of ways. Advertising is part of our daily lives and it is all around us. As a result of the heightened attention given to TV food advertising, during children's viewing hours, and subsequent restrictions; advertisers are making greater use of other advertising platforms to target children. Figure 3.3 shows parents' views on whether these platforms should be used to advertise food products to children.

Figure 3.4: Parents' views on using alternative media to advertise food to children



As reflected in Figure 3.4, parents feel that the advertising of food to children should be reduced on all fronts, except for internet advertising. In the case of internet advertising, parents feel that the advertising of unhealthy food should be stopped.

3.4 SUMMARY

The empirical research for this study was done with the aid of a survey questionnaire. The survey was conducted at a crèche in the town of Vanderbijlpark, South Africa, with the aim of measuring parents' perception with regard to TV food advertising directed at children. Parents with children aged between 3 and 14 years were surveyed and the results were analysed with the aid of the SAS program. Statistical analysis of the constructs was conducted and the results were tabulated and discussed.

In the following chapter, conclusions will be drawn from both the literature study as well as the empirical study and recommendations will be made. The chapter will then conclude with suggestions of areas for future research.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

In the preceding chapters, a literature review was undertaken, which gave rise to the identification of the problem statement and objectives. Following the literature review, an empirical study was conducted with the aid of a questionnaire to identify parents' perceptions of TV food advertising aimed at children. The results from the empirical study was tabled and discussed in chapter three. In this chapter, conclusions from the literature review as well as the empirical study is drawn and recommendations are put forward. The chapter concludes with proposed areas for future research.

4.2 CONCLUSIONS

4.2.1 Conclusions from the literature review

Obesity is no longer a problem of developed countries and South Africa has also fallen victim to the rampant global increase in obesity. Similarly, childhood obesity has become increasingly evident in South Africa, yet the paradox is that South African children are also at risk of under nutrition.

Although it is acknowledged, in a number of studies that various factors contribute to the growth in childhood obesity, television food advertising intended for children has received most of the attention, since there has been an increase in advertisements of foods that are high in calories and low in nutritional value. There are numerous research studies that demonstrate advertising influences on children's food preferences; however, there is no evidence that food advertising to children causes childhood obesity, since conducting such research would be ethically wrong.

Advertising to children will continue to be scrutinised as long as it is perceived to be exploiting children's vulnerability. Numerous studies conducted over the years have proven the literature regarding children's lack of cognitive ability to understand the commercial intent or subliminal messages of the advertisements they enjoy watching; thereby making them vulnerable and in need of protection.

Reaction to this threat on children has varied between countries; some reacting strongly and imposing a complete ban on food advertising to children, while others have left it to the industry to address the concern. Where industries have been given an opportunity to address the concern, otherwise known as self-regulation, various approaches have been applied. Whether the industry is self regulation or regulated by government, questions are raised as to whether the commitment, guidelines and policy decisions are being adhered to by advertisers.

Numerous literature and empirical studies have been conducted over the years on the subject of advertising to children; the concerns, the effect and children's understanding of advertising. In comparison, only a few studies have been found where the perceptions of parents have been sought regarding the advertising of food to children, in particular TV food advertising. From the few studies found, the majority of the parents expressed concern regarding the advertising of food to children and felt strongly that stricter regulations, and in some instances a ban, should be imposed on the advertising of food to children; in particular, advertising of unhealthy food. Understanding parents' views or perceptions is important since the concern about advertising to children is centred on the protection of children.

4.2.2 Conclusions from the empirical study

4.2.2.1 Conclusions on demographic information of respondents

The age of the respondents shows that there were nearly as many “older” parents with young children as there were young parents. Respondents aged between 35 and 44 years of age made up 45.4% of the survey sample. This is a reflection of the change in modern society, whereby people are having children at a later stage in their lives. It was also interesting to find that nearly a quarter (20.4%) of the respondents were single parents, either by choice or circumstances.

As was expected from survey conditions, the majority of the respondents were women (84.1%). It is generally seen that mothers are more likely to be the parent collecting the children from the crèche.

The representation of the racial groups was not as expected, since African respondents only made up 17.1% of the survey population. The response rate, which was 49%, could have been a factor.

Just over half of the respondents (58%) have two children aged between 3 and 14 years of age, while 33% of the respondents have only one child in that age category. Under certain conditions, parents with only one child tend to be more protective of the children than parents with more than one child. Since the results from this study reflected no practical significance between the two categories (number of children), it is concluded that there were no differences in the parents’ perceptions.

Considering we are in the technological era, it was surprising to see that 40.9% of the respondents only have one TV in their home. Equally interesting was that the majority of the respondents (55.7%) did not have internet at home. The amount of respondents without internet in their homes supports other research that suggests South Africa lags far behind other countries in regard to access to the internet.

4.2.2.2 Conclusions on survey constructs

In measuring the reliability of the survey questionnaire used in this study, the Cronbach alpha coefficient was used. 10 of the 15 constructs measured had a Cronbach alpha coefficient of 0.7 and above and therefore could be interpreted as reliable and internally consistent, as defined by Schmitt (1996:351). Fields (2007:668) on the other hand stated that should the constructs be measuring attitudinal or behavioural constructs, a lower coefficient is acceptable. The construct *Role of government* was too low *(α* = 0.33) and since reliability could not be assured, a decision was taken to analyse the two items that made up that construct separately, namely: *Government's regulation of TV programming*; and *Limits on time devoted to advertisements*. Therefore, these Cronbach alpha coefficients could not be determined. Since the variables measured either attitude or behaviour, and only one Cronbach alpha coefficient was below 0.58, that of *Advertising ethics* (*α* =0.50), the questionnaire used in this study is deemed reliable in measuring parents' perceptions of TV food advertising to children.

For this research questionnaire, a 4-point Likert scale was used to evaluate the parents' perceptions. The mean scores recorded from the perception survey ranged from $\bar{x}$ = 2.37 on the lower end, to $\bar{x}$ = 3.35 on the higher end of the scale. The average score across all the constructs is 2.79, indicating that the respondents on average are in agreement with the statements, perceive a moderate degree of influence and express some concern toward TV food advertising aimed at children. The greatest concern was shown for the construct *Childhood obesity* ($\bar{x}$ = 3.35). This very high level of concern around the rise in childhood obesity is in support of the literature and the results of similar studies conducted in other countries.

Parents also expressed very high concerns around the construct *Regulating authority* ($\bar{x}$ = 3.03). They felt strongly that the industry should not be self-regulated, unlike some countries; action should be taken against those that breach the regulations on advertising; and stronger restrictions should be placed on food advertisements during children's TV viewing hours. The request for stronger regulations around food

advertising during children's viewing hours is complementary with most studies found in the literature.

It was interesting to see that South African parents, who participated in this study conducted in the Vanderbijlpark geographical area, perceive that children can distinguish programmes from advertisements ($\bar{x}$ = 2.82). This result is not supportive of the literature regarding young children, but is in line with the literature when looking at children older than 9 years of age. Surprisingly, 42% of the parents perceive that their children understand the commercial intent of advertising. Parents also acknowledged the positive aspects of advertising ($\bar{x}$ = 2.81); where 83% of the parents perceive that advertisements provide accurate information about the product and 69% of the parents stated that advertisements encourage discussion at home between them and their children, on the product being advertised. Parents were less supportive of banning all food advertising ($\bar{x}$ = 2.37), resembling results found of studies conducted in other countries.

The general conclusion around the constructs relating to acceptability of food advertising to children is that South African parents, who participated in this study conducted in the Vanderbijlpark geographical area, are concerned about TV food advertising to children. That being said, their level of concern is not as high as that of parents from other countries, as reflected in the literature. The greatest concern of the respondents in this study is the nutritional value of the food being advertised ($\bar{x}$ = 3.06 and $\bar{x}$ = 3.02) and the use of free toys to promote food to children ($\bar{x}$ = 2.92). This concern was echoed by parents in an open ended question regarding their concerns around the advertising of food to children.

The general conclusion relating to parents' perception of whether TV food advertising influences children's food preference and eating habits is that South African parents, who participated in this study conducted in the Vanderbijlpark geographical area, perceive that advertising does influence their children's food preferences and eating habits. Furthermore, parents perceive that TV food advertising encourages children

to want products they do not need; however, it does not appear to be creating much intra-family conflict.

The general conclusion relating to parents' perceptions of South Africa's regulation of TV food advertising to children; is that parents believe that although regulations exist, they are ineffective. Furthermore, although parents are not in favour of banning all food advertising to children, they would like to see a reduction of food advertising to children and stronger restrictions being applied to TV food advertising during children's TV viewing hours.

Although other South African parents, with a similar demographic profile, may react similarly to those who took part in this study; care should be taken to extrapolate the results of this study to the South African parent in general. Further research could confirm the similarities or differences in parents with different demographic profiles.

4.2.2.3 Conclusions on the relationship between certain demographic variables and the various constructs

Statistical and practical significance were tested across all the constructs and the following conclusions can be made:

- The difference in the means between respondents aged 18 to 34 years and respondents aged 35 to 54 years of age are not practically significant, as $d < 0.8$; meaning that the respondents in the two age categories do not feel different about the various constructs.
- The differences in means between men and women are not practically significant but visibly significant for the following three constructs: *Influence on food preference* (d=0.57), *Advertising practices* (d=0.58) and *Food advertising concerns* (d=0.50). It appears that women are more in agreement that TV food advertising influences children's food preferences; expressed more concern about food advertising to children and are more concerned about the advertising practices used, than men are.

- The differences in means between the African respondents and the White respondents are not practically significant but visibly significant for the following three constructs: *Advertising ethics* (d=0.74), *Advertising practices* (d=0.50) and *Banning of all food advertising* (d=0.54). This means that African respondents expressed more concern about the advertising practices used compared to the White respondents. Furthermore, African respondents reflected stronger opinion that it is ethically and morally wrong to advertise food to children, than White respondents; while White respondents felt stronger about banning all food advertising to children than African respondents.
- The differences in means between the respondents with one TV and respondents with more than one TV at home are not practically significant. This means that respondents with one TV at home felt no different to respondents with more than one TV, about the various constructs.
- The differences in means between respondents with one child compared to respondents with more than one child between the age of 3 and 14 years; are not practically significant but visibly significant for the following two constructs: *Influence on food preferences* (d=0.75), and *Food advertising concerns* (d=0.57). Respondents with one child are more in agreement that TV food advertising influences children's food preferences and expressed more concern about food advertising to children than respondents with more than one child.

The overall conclusion of the relationship between the demographic variables and the constructs is that there is no practical significance and at best, a visible significance exists between the demographic variables and certain constructs.

4.3 RECOMMENDATIONS

- TV food advertising to children is not a topic that is casually discussed amongst the general population. It is recommended that the survey be repeated on the same parents within the next year. As an outcome of the parents being exposed to the survey questionnaire, their awareness to the topic will be a lot greater than before. For that reason, the parents that participated in this survey will over the next few months pay more attention to the topic of *television food advertising to children* and it would be interesting to see if those parents' perceptions have changed as a result of the heightened awareness.

- The results obtained from this study is a representation of the perceptions of the parents from the geographical area of Vanderbijlpark, South Africa. It is recommended that this survey be conducted in other geographical areas around South Africa, not only to obtain a more representative sample of South African parents' perception of *TV food advertising to children*, but also to compare the results with that of parents from Vanderbijlpark.

- It is further recommended that the questionnaire be re-validated after extensive data have been collected.

4.4 REVIEW OF STUDY OBJECTIVES

The primary objective of this study, as set out in chapter one, was to establish parents' perceptions towards television food advertising directed at children, in particular parents with children aged between 3 and 14 years. This objective was achieved. The empirical research conducted at a crèche in Vanderbijlpark revealed that parents, with children between the ages of 3 and 14 years, expressed concern about TV food advertising directed at children.

Secondary objectives in support of the primary objectives were to:

- establish if parents perceive it acceptable for food to be advertised to children, at times when children watch television;
- establish if parents perceive that television food advertising influences children's food preferences and eating habits; and
- establish parents' perception of South African regulations regarding advertising food to children and if they are seen as satisfactory in protecting the children of South Africa.

In terms of the abovementioned objectives, the following can be contributed:

- parents perceive it to be unacceptable for food to be advertised to children during their TV viewing hours, in particular unhealthy food.
- parents perceive that advertising does influence their children's food preferences and eating habits. Furthermore, parents perceive that TV food advertising encourages children to want products they do not need.
- parents believe that although regulations exist, these are ineffective in protecting children. Furthermore, although parents are not in favour of banning all food advertising to children, they would like to see a reduction of food advertising to children and stronger restrictions being applied to TV food advertising during children's viewing hours.

4.5 AREAS FOR FUTURE RESEARCH

Influences from advertising can be associated with exposure to advertising. As cited by Stitt and Kunkel (2008:574), television advertising is one of the most effective vehicles to deliver food messages to children. In light of this, an empirical study on the number of hours South African children spend watching television would give an indication of the level of exposure children have to television food advertising.

To supplement the above study, an empirical study on the amount of advertising on South African television during children's viewing hours would be of interest. This

study should include a content analysis of the advertisements shown during children's TV viewing hours.

Results from Section E of the questionnaire in this study, reflected that parents viewed internet adverting as a concern. Future research into how the internet is being used by food advertisers to target children would be of interest. The literature had highlighted the concern that should advertisers be too restricted in using television, they will focus their attention on other media to promote their products.

South Africa, as with other countries, has implemented regulations on how to advertise to children. A common concern raised in the literature, irrespective of the policy decision taken by the various countries, was the adherence to the set regulation or policy by the advertiser. Empirical research into the level of compliance to the regulations in South Africa would illustrate advertisers' willingness, not only to adhere to the law but also their willingness to do their part in "protecting" the children of South Africa. This will also reflect their commitment to "The South African Pledge on Marketing to Children" as shown in Annexure B.

4.6 SUMMARY

Concerns about food, nutrition and an increase in childhood obesity have resulted in a resurgence of interest towards advertising to children, in particular television food advertising. Although there is ample research regarding the advertising of food to children, research on how parents perceive the impact of television food advertising on their children's food preferences, as well as the overall level of parental concern with regard to this issue, is limited.

This limitation resulted in the identification of a research opportunity and a problem statement was formulated. The research was conducted in two parts: a literature review and an empirical study. The literature review enabled the formulation of the research objectives and the refinement of the problem statement. The scope of the

empirical study was defined and a study population was identified in the town of Vanderbijlpark, South Africa.

A literature review was conducted on the nature and extent of advertising to children; concerns associated with advertising to children and regulating policy decisions implemented by various countries, including South Africa. It was found that numerous research studies supported the concerns raised with regard to TV food advertising to children; however, no evidence was found that advertising food to children caused childhood obesity.

From the few empirical studies found on parents' perceptions, the majority of the parents expressed concern regarding the advertising of food to children and felt strongly that stricter regulations should be imposed on the advertising of food to children. The literature review further provided the basis for the development of a research questionnaire, used to conduct this empirical study.

This empirical study was conducted at a crèche in the town of Vanderbijlpark, South Africa. Parents with children aged between 3 and 14 years were surveyed and a response rate of 49% was attained. Statistical analysis of the constructs was conducted with the aid of the SAS program; and the results were tabulated and discussed. The reliability of the questionnaire was assessed by calculating the Cronbach alpha coefficient and the effect size values (d-values), as discussed by Ellis and Steyn (2003:51-53), were used to indicate if there was a practical significance between any demographical variable regarding the constructs.

In this chapter, conclusions from the literature review as well as the empirical study were brought together. The questionnaire used for the empirical research was evaluated and deemed reliable in measuring parents' perceptions of TV food advertising directed at children.

The aim of this study was to determine parents' perception of television food advertising directed at children. The primary and secondary objectives set out in chapter one were reviewed and deemed to have been met.

Results from this empirical study reflected that South African parents, who participated in this study conducted in the Vanderbijlpark geographical area:

- are concerned about the advertising of food to children;
- perceive that TV food advertising influences children's food preferences;
- perceive that South African regulations are ineffective in protecting the children against advertisers and they feel that stronger regulations on TV food advertising to children should be implemented, especially during children's TV viewing hours.

Although other South African parents, with a similar demographic profile, may react similarly to those who participated in this study; care should be taken to extrapolate the results of this study to the South African parent in general. Further research could confirm the similarities or differences in parents with different demographic profiles.

Recommendations on how to proceed with the findings of this study are presented and areas for future research are suggested.

REFERENCES

ADLER, R.P. 1977. Research on the effects of television advertising on children: A review of the literature and recommendations for future research. National Science Foundation: Washington. 229 p.

ANASTASI, A. & URBINA, S. 1997. Psychological testing. 7th ed. New York: Prentice-Hall. 721 p.

ANON. 2007. Does children's TV advertising exposure contribute to an unhealthy diet? Refining the Big Food Advertising Effect Hypothesis. *TV Advertising and Children's Diets*. p. 1-21. http://mediafire.com/?y4njzzm2nmy Date of access: 20 Nov. 2009.

ANON. 2008. Children's society blasts 'exploitative' advertising. *Marketing* Week, 28 February. http://www.marketingweek.co.uk Date of access: 20 Nov. 2009.

ANON. 2009a. General Mills, ASA agree on advertising to kids. *Marketingweb*, 26 January. http://www.marketingweb.co.za Date of access: 20 Nov. 2009.

ANON. 2009b. The South African pledge on marketing to children. Consumer Goods Council of South Africa. http://www.cgcsa.co.za/the-south-african-pledge-on-marketing-to-children Date of access: 23 May 2010.

ANON. 2010a. Defining overweight and obesity. Centres for Disease Control and Prevention. http://www.cdc.gov/obesity/defining.html Date of access: 23 May 2010.

ANON. 2010b. Pledges. International Food and Beverage Alliance (IFBA) https://www.ifballiance.org/commitment-3-responsible-marketing-advertising-children/commitment-3-continued.html Date of access: 23 May 2010.

ARNAS, Y.A. 2006. The effects of television food advertisement on children's food purchasing requests. *Paediatrics International*, 48(2):138-145.

ASASA. 2010. Advertising Standards Authority of South Africa Code of Practice. http://www.asasa.org.za/Default.aspx?mnu_id=11 Date of access: 11 Nov. 2009.

BARTHOLOMEW, A. & O'DONOHOE, S. 2003. Everything under control: a child's eye view of advertising. *Journal of Marketing Management*, 19(3-4):433-457, Apr.

BUIJZEN, M. 2009. The effectiveness of parental communication in modifying the relation between food advertising and children's consumption behaviour. *British Journal of Development Psychology,* 27(1):105-121, Mar.

CALVERT, S.L. 2008. Children as consumers: advertising and marketing: the future of children. 18(1):205-234, Spring.

CHAN, K. & McNEAL, J.U. 2003. Parental concern about television viewing and children's advertising in China. *International Journal of Public Opinion Research*, 15(2):151-166, Dec.

CHANG, H.H. & NAYGA, R.M. 2009. Television viewing, fast-food consumption, and children's obesity. *Contemporary Economics Policy*, 27(3):293-307, Jul.

COLE, T.J., BELLIZZI, M.C., FLEGAL, K.M. & DIETZ, W.H. 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. *British Medical Journal*, 320(7244):1240-1243.

DALMENY, K., HANNA, E. & LOBSTEIN, T. 2003. Broadcasting bad health: why food marketing to children needs to be controlled. A report by the International Association of Consumer Food Organizations for the World Health Organization consultation on a global strategy for diet and health. http://www.cspinet.org/reports/codex/foodmarketingreport.pdf Date of access: 10 May 2010.

DA SILVA, I.S. 2007. Task force on advertising to children in SA. http://www.bizcommunity.com/Article/196/11/12890.html Date of access: 11 Nov 2009

DAVIES, S. 2007. Marketing of food to children: a new language. *Education review*, 19(2):40-48.

DU TOIT, G. & VAN DER MERWE, M.T. 2003. The epidemic of childhood obesity. *South African Medical Journal*, 93(1):49-51, Jan.

EAGLE, L., BULMER, S., DE BRUIN, A. & KILCHEN, P.J. 2005. Advertising and children: issues and policy options. *Journal of Promotion Management*, 11(2/3):175-194.

EAGLE, L., DE BRUIN, A. & BULMER, S. 2002. The children-nutrition-marketing ethics conundrum: identifying the issues. Working paper 02.16 rev. August. p.1-21. http://www.aeforum.org/aeforum.nsf/88e10e9813be5a4780256c5100355eb1/9b32a916733d2cfb80256d36004d0c67/$FILE/EAGLE20031.pdf Date of access: 12 May 2010.

ELLIS, S.M. & STEYN, H.S. 2003. Practical significant (effect sizes) versus or in combination with statistical significance (p-values). *Management Dynamics,* 12(4):51-53.

FIELD, A. 2007. Discovering statistics using SPSS. 2nd ed. London: Sage. 816 p.

GOEDECKE, J.H., JENNINGS, C.L. & LAMBERTC, E.V. 2006. Obesity in South Africa. (In ed. Chronic Diseases of Lifestyle in South Africa since 1995 - 2005.) 65-79.

HASTINGS, G., McDERMOTT, L., ANGUS, K., STEAD, M. & THOMSON, S. 2006. The extent, nature and effects of food promotion to children: a review of the evidence. Technical Paper prepared for the World Health Organization. Geneva: WHO. 99 p.
http://www.who.int/dietphysicalactivity/publications/Hastings_paper_marketing.pdf
Date of access: 12 May 2010

HAUGTVEDT, C.P., HERR, P.M. & KARDES, F.R. 2008. Handbook of consumer psychology. New York: Psychology Press. 1 273 p.

HAWKES, C. 2005. Self-regulation of food advertising: what it can, could and cannot do to discourage unhealthy eating habits among children. *British Nutrition Foundation Nutrition Bulletin*, 30:374-382.

HAWKINS, D.I., BEST, R.J. & CONEY, K.A. 1998. Consumer behavior: building marketing strategy. 7th ed. Boston, MA.: Irwin/McGraw-Hill. 760 p.

IP, J., MEHTA, K.P. & COVENEY, J. 2007. Exploring parents' perceptions of television food advertising directed at children: A South Australian study. *Nutrition & Dietetics*, 64:50-58.

JARLBRO, G. 2001. Children and advertising on television. a survey of research – 1994-2000. p. 71-78. http://www.nordicom.gu.se/common.publ_pdf/34_Jarlbro.pdf
Date of access: 11 Nov. 2009.

KAPOOR, N. & VERMA, D.P.S. 2005. Children's understanding of TV advertisements: influence of age, sex and parents. *Journal of Business Perspective*, 9(1):21-36, January-March.

KARUPAIAH, T., CHINNA, K., MEE, L.H., MEI, L.S. & NOOR, M.I. 2008. What's on Malaysian television? A survey of food advertising targeting children. *Asia Pacific Journal of Clinical Nutrition,* 17(3):483-491.

KELLY, B. 2009. Position statement: food marketing to children. Cancer Council Australia. p. 1-9

KOTLER, P. & ARMSTRONG, G. 2009. Principles of marketing. 13th ed. Upper Saddle River, N.J.: Pearson Education. 637 p.

KRUGER, H.S., PUOANE, T., SENEKAL, M. & VAN DER MERWE, M.T. 2005. Obesity in South Africa: challenges for government and health professionals. *Public Health Nutrition:* 8(5):491-500, June.

LIVINGSTONE, S. & HELSPER, E. 2004. Advertising foods to children: understanding promotion in the context of children's daily lives. Department of Media and Communications London School of Economics and Political Science. http://www.lse.ac.uk/collections/medis@lse/whoswho/sonialivingstone.htm Date of access: 11 Nov. 2009.

MCGINNIS, J.M., GOOTMAN, J.A. & KRAAK, V.I. 2006. Food marketing to children and youth: threat or opportunity? Institute of Medicine (U.S.) Committee on Food Marketing and the Diets of Children and Youth. National Academies Press. 516 p. http://books.google.co.za/Food Marketing to Children and Youth: Threat or Opportunity. Date of access:12 May 2010.

MOLLENTZE, W.F. 2006. Obesity in South Africa: a call for action. JEMDSA, 11(2):44-45, November.

MOORE, E.S. 2007. Perspectives on food marketing and childhood obesity: introduction to the special section. *American Marketing Association*, 26(2):157-161, Fall.

MORLEY, B.C. 2007. National community survey of TV food advertising to children. The Cancer Council Victoria, Australia. May. 28 p.
http://www.health.qld.gov.au/ph/documents/hpu/Survey_TVFoodAdChild.pdf
Date of access: 12 May 2010

NEELEY, A.M. & SCHUMANN, D.W. 2004. Using animated spokes-characters in advertising to young children. *Journal of Advertising*, 33(3):7-23.

OBESITY TASK FORCE. 2003. World Health Organization. Global strategy on diet, physical activity and health: Obesity and overweight.
http://www.who.int/hpr/NPH/docs/gs_obesity.pdf Date of access: 11 Nov. 2009.

O'SULLIVAN, T. 2007. Get MediaSmart®: A critical discourse analysis of controversy around advertising to children in the UK. *Consumption, Markets and Culture,* 10(3):293-314, September.

PALMER, E.L. & CARPENTER, C.F. 2006. Food and beverage marketing to children and youth: trends and issues. *Media Psychology*, (8):165-190.

PEAK GROUP. 2007. Survey of public opinions about advertising food to children. Phoenix Research. November. 54 p.
http://www.heartfoundation.org.nz/.../The%20Phoenix%20Advertising%20Survey.pdf
Date of access: 11 Nov. 2009.

POLLAY, R.W. 2000. The distorted mirror: Reflections on the unintended consequences of advertising. *Advertising & Society Review*, 1(1):18-36.

PRESTON, C. 2004. Children's advertising: the ethics of economic socialisation. *International Journal of Consumer Studies*, 28(4):364-370, September.

RADCLIFFE, B.C. & ASHTON, B. 2003. Television advertising: an international threat to children. *Nutrition & Dietetics*, 60(4):269-270.

SANTOS, J.R.A. 1999. Cronbach's alpha: a tool for assessing the reliability of scales. *Journal of Extension*, 37(2). Retrieved from:
http://www.joe.org/joe/1999april/tt3.php
Date of access: 11 Aug. 2010.

SAS INSTITUTE INC. 2005. SAS Institute Inc., SAS OnlineDoc®, Release 9.1. Cary. NC:SAS Institute http://www.sas.com Date of access: 19 Sep. 2010.

SCHIFFMAN, L.G. & KANUK, L.L. 2004. Consumer behavior. 8th ed. New York: Pearson Prentice-Hall. 587 p.

SCHMITT, N. 1996. Uses and abuses of coefficient alpha. *Psychological Assessment,* 8(4):350-353.

SHUKLA, P. 2004. T-test and factor analysis. University of Brighton.
http://www.pauravshukla.com/marketing/research-methods/t-test-factor-analysis.pdf
Date of access: 19 Sep. 2010.

SOUTH AFRICA. 2007. Foodstuffs, Cosmetics and Disinfectants Amendment Act 39 of 2007. Pretoria: Government Printer.

STITT, C. & KUNKEL, D. 2008. Food advertising during children's television programming on broadcast and cable channels. *Health Communication*, 23(6):573-584, Nov.

STORY, M. & FRENCH, S. 2004. Food advertising and marketing directed at children and adolescents in the US. *International Journal of Behavioral Nuttrition and Physical Activity,* 1(3):1-17
http://www. ncbi.nlm.nih.gov/pmc/articles/PMC416565/pdf/1479-5868-1-3.pdf
Date of access: 12 May 2010.

TABACHNICK, B.G. & FIDELL, L.S. 2001. Using multivariate statistics. 4th ed. Boston, M.A.: Allyn & Bacon 966 p.

THOMPSON, K. 2007. ASA's food and beverage code to protect children. Global Advertising Lawyers Alliance. http://www.gala-marketlaw.com Date of access: 11 Nov. 2009.

TRUMAN, R. 2004. Is marketing to children ethical? Dairy Industries International. p.22-23. http://business.highbeam.com/137612/article-1G1-117325637/marketing-children-ethical-obesity-children-becomes Date of access: 11 Nov. 2009.

VAN DER MERWE, M.T. & PEPPER, M.S. 2006. National prevalence of obesity. Obesity in South Africa. The International Association for the Study of Obesity. *Obesity Reviews*, 7:315-322.

WANG, Y. & LOBSTEIN, T. 2006. Worldwide trends in childhood overweight and obesity. (In ed. International Journal of Pediatric Obesity), 11-25.

WILDE, P. 2009. Self-regulation and the response to concerns about food and beverage marketing to children in the United States. *Nutrition Reviews,* 67(3):155-166.

WILLIAMS, L.R. 2006. An analysis of the appeal methods utilized in children's television food advertising. 31 p. Available: ephost@epnet.com Date of access: 3 Jul. 2010.

WORLD HEALTH ORGANIZATION. 2003. Diet, nutrition and the prevention of chronic diseases. WHO Technical Report Series 916. 1003. Geneva. p. 1-160. http://whqlibdoc.who.int/trs/who_trs_916.pdf Date of access: 16 May 2010.

ZOLL, M.H. 2000. Psychologists challenge ethics of marketing to children. http://www.medicalchannel.org/originals/kidsell.shtml Date of access: 20 Nov. 2009.

ANNEXURE A: South Africa's Code of Advertising Practice

The following is an extract from the Advertising Standards Authority of South Africa Code of Advertising Practice, in particular Section 14 which deals with advertising to children (ASASA, 2010).

14. Children

14.1 Children and safety

14.1.1 General principle

14.1.1.1 Advertisements addressed to or likely to influence children should not contain any statement or visual presentation which might result in harming them, mentally, morally, physically or emotionally.

14.1.1.2 The aim of the general principle is:

- that children should not be brought under the impression that it is acceptable and safe to be in certain surroundings; and
- that the depiction of a particular activity or circumstances in such a way would not have the likely effect that children would attempt to emulate it with the concomitant risk of physical, moral or mental harm or that the impression is created that it is acceptable to act in a certain manner.

14.1.2 Instances where the above principle may apply are, inter alia, the following:

An advertisement:

- which encourages children to enter strange places or to converse with strangers in an effort to collect coupons, wrappers, lables or the like;
- where children appear to be unattended in street scenes unless they are obviously old enough to be responsible for their own safety, and where they are shown to be playing in the road unless it is clearly shown to be in a play area or other safe area, in street/traffic scene where they are seen to disobey traffic rules;
- where children are seen leaning dangerously out of windows or over bridges, or climbing dangerous cliffs;

- where small children are shown climbing up to take things from a table above their head or where medicines, disinfectants, antiseptics or caustic substances are shown within reach of children without close parental supervision, or where unsupervised children are shown using these products in any way;
- where children are being shown using matches or any gas, paraffin, petrol, mechanical or mains powered appliances in such a way which could lead to their suffering injury.

14.1.3 Possible justification of depicting children in dangerous situations would be:

- advertising promoting safety or safe practices; or
- clearly surrealistic activities which could be perceived as such by the child as likely viewer, would be excluded.

14.2 Children's credulity and lack of experience

14.2.1 General principles

Advertisements should not exploit the natural credulity of children or their lack of experience and should not strain their sense of loyalty.

14.2.2 Instances where the above principle may apply are, inter alia, the following:

- for a commercial product or service which contains any appeal to children which suggests in any way that unless the children themselves buy or encourage other people to buy the product or service, they will be failing in some duty or lacking in loyalty toward some person or organisation, whether that person or organisation is the one making the appeal or not;
- which leads children to believe that if they do not own the product advertised they will be inferior in some way to other children or that they are liable to be held in contempt or ridicule for not owning it;
- dealing with the activities of a club where children meet is allowed provided there is a clear statement that the club is carefully supervised in the manner of the behaviour of the children and the company they keep and that there is no suggestion of the club being a secret society;

- offering a free gift, where the gift is not “free” in a literal sense, ie where it is available without a consideration. If a condition applies, ie “free with . . .”. This fact should be stated as well as any other conditions that will apply if the free gift is not deliverable immediately if the main conditions, e.g. the purchase of something, is met. The gift should be portrayed in such a manner that its size can be determined by showing it in relation to some common object.

14.3 Portrayal of children

Children should not be portrayed as sexually appealing, provocative or which involves any form of sexual innuendo.

14.4 Use of children in advertising

In using children in advertising attention is drawn to the provisions of Sections 43, 44 and 55(6)(b) of the Basic Conditions of the Employment Act of 1997.

ANNEXURE B: Global commitment with respect to advertising to children

The following is an extract of the global commitments to improving nutrition and promoting a healthy lifestyle. This is in response to the growing concern of childhood obesity.

Table 2.4: Global commitments with respect to advertising and marketing to children

The Union of European Beverages Association (UNESDA) Pledge	In January 2006, UNESDA made a series of commitments to the EU Platform on Diet, Physical Activity and Health, including not advertising to children under 12, not offering products for sale in primary schools, and offering a wide variety of drinks in secondary schools.
The Australia Beverage Industry	Launched in August 2006, the Australian Beverages Council's (ABCL) members represent 99% of the carbonated beverage market, 50% of the juice market and 95% of the bottled water market. Members have committed not to market sugar-sweetened carbonated beverages to primary schools or to advertise these beverages on television where a majority of primary school age children are viewers. ABCL members have also committed to not engage in any direct commercial activities in primary schools and to withdraw sugar-sweetened beverages from secondary schools where required, and to offer a wide range of bottled waters and juice-based beverages for children and adolescents.
The Canadian Children's Food and Beverage Advertising Initiative	The Canadian Children's Food and Beverage Advertising Initiative was launched in April 2007 and, to date, 18 of Canada's largest food and beverage advertisers, representing more than 90% of the market have signed the pledge.

The EU Pledge	In December 2007, eleven major food and companies announced a common commitment to change the way they advertise to children in the EU in support of parental efforts to promote healthy lifestyles.
The US Children's Food and Beverage Advertising Initiative	The US Children's Food and Beverage Advertising Initiative was launched in July, 2008, by the Council of Better Business Bureaus, with many of the nation's largest food and beverage companies as participants. The Initiative is designed to shift the mix of advertising messaging to children to encourage healthier dietary choices and healthy lifestyles.
The Responsible Children's Marketing Initiative of the Australian Food and Beverage Industry	The Australian Food and Grocery Council, representing 150 companies and 80% of the gross dollar value of the food and beverage sector, announced the Children's Marketing Initiative in October 2008 and became effective 1 January 2009. Currently, there are 18 food and beverage companies participating in this initiative, including all IFBA member companies with business in Australia.
The Thailand Pledge	In May 2008, seven major food and beverage companies announced a common commitment to responsible advertising in Thailand in support of the industry's ongoing efforts to support parents in making the right diet and lifestyle choices for their children.
The South Africa Pledge on Marketing to Children	In June 2009, initiated by the Consumer Goods Council of South Africa, a number of South African food, beverage, retail and quick service restaurant companies, including all IFBA member companies with business in South Africa, signed The South Africa Pledge on Marketing to Children.

Brazil Public Commitment on Food and Beverage Advertising to Children	In August 2009, 24 food and beverage companies adopted a Public Commitment on food and beverage advertising to children, confirming strict compliance with the norms advocated by the Brazilian Code of Advertising Self-Regulation and a commitment, to become effective no later than 31December 2009, not to advertise food or beverage products to children under the age of 12, except for products which fulfill specific nutrition criteria based on scientific evidence.
Russian Pledge "On limitation of advertising to children"	In October 2009, nine food and beverage companies adopted the pledge "On limitation of advertising to children," effective January 2010. This pledge is similar to the EU Pledge adopted by these same companies in 2007. Pledge participants also agreed to promote physical activity and provide consumers with easily-understandable nutrition information to help them make informed choices.
The Mexico Marketing to Children Pledge	In February 2010, 14 major food and beverage companies announced a common commitment to responsible marketing to children in Mexico.
The India Pledge	In May 2010, seven food and beverage companies adopted a pledge committing to change food and beverage advertising on TV, print, radio and the internet to children under the age of 12 years. Each of the signatory companies will publish their specific advertising commitments during the course of 2010.

Source: Anon (2010)

ANNEXURE C: Survey questionnaire

NORTH-WEST UNIVERSITY ®
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Potchefstroom Business School

Research Questionnaire

Developed by:

Mr AA Da Fonseca
Prof CA Bisschoff (NWU)

TV Food Advertising to Children
Research Questionnaire

This questionnaire is designed to collect information on the views of South African parents with regard to *TV Food Advertising to Children*. This research is based on international studies and is viewed to be in the best interest of children. The information gathered from this questionnaire is anonymous and will only be used for academic purposes.

Please complete the questionnaire and **return** it to the school / crèche **within three days** of receipt.

GENERAL INSTRUCTIONS

- This questionnaire must be completed by a **parent** of a minor child. A minor child is defined as a child 14 years and younger.
- Please answer the questions as **objectively and honestly** as possible.
- Please **answer all** the questions as they are all important for the researcher to conduct the relevant analysis.
- It is essential that you answer the questions clearly with a **pen**.
- Virtually all the questions may be answered by making a cross (X) in the relevant block. For example, should you be asked to what extent you agree or disagree with the statement:

  "Advertisements provide information regarding available products."

  and you feel that you agree, place your cross (**X**) in the block as in the example below.

		Strongly Disagree	Disagree	Agree	Strongly Agree
Q1	Advertisements provide information regarding available products	1	2	**X**	4

Thank you for your co-operation and participation in this research.
We hope that you will find the questionnaire interesting and stimulating.

SECTION A

The following information is needed to help us with statistical analysis of the data for comparisons amongst different interest groups. We appreciate your help in providing this important information.

Please mark the applicable block with a cross (X). Complete the applicable information where required.

A1 Which of these age groups do you fall into?

18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65+

A2 Gender?

Male	Female

A3 Population group?

African	White	Indian / Asian	Coloured

A4 Marital status?

Single	Married / Living together	Divorce	Widow(er)

A5 How many children do you have under 14 years of [ ] age?

A6 How old is that child /each child, starting with the youngest? Please indicate the gender of each child.

Ages:					
Gender: (Male/Female)					

A7 How many TVs are there in your [ ] household?

A8 Do you have internet access at home?

Yes	No

A9 What is your highest academic qualification?

No qualification	Matric / Grade 12	Certificate	Diploma (Technical College or Technikon)	University Degree	Post Graduate Degree

SECTION B

Mark the applicable block with a cross (X). Complete the applicable information where required.

B1 Obesity amongst children is on the rise globally. Indicate to what extent you agree or disagree with the statement.

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4

B2 In your opinion, the number of children in South Africa that are overweight or obese is ……

Not a problem at all	A slight problem	A moderate problem	A serious problem
1	2	3	4

B3 To what extent, if at all, do you think your children's **LIKING** for particular food and drink products is influenced by advertising?

Not influenced at all	Influenced a little	Moderately influenced	Very influenced
1	2	3	4

B4 To what extent, if at all, do you think your children's **REQUESTS** for particular food and drink products is influenced by advertising?

Not influenced at all	Influenced a little	Moderately influenced	Very influenced
1	2	3	4

B5 To what extent, if at all, are you concerned about the advertising of food products at times when children watch TV?

Not at all concerned	A little concerned	Somewhat concerned	Very concerned
1	2	3	4

B6 To what extent, if at all, are you concerned about the advertising of **UNHEALTHY** food products at times when children watch TV? *Unhealthy food products mean products that contain high amounts of sugar, salt or fat, but have low nutritional value. Health experts say these products are unhealthy if consumed too often or in larger quantities*.

Not at all concerned	A little concerned	Somewhat concerned	Very concerned
1	2	3	4

IF your answer to question B5 and B6 is " <u>Not at all concerned</u> ", skip question B7 and continue with question B8.

B7 What particular aspect(s) concern you about the food advertising that is shown at times when children watch TV?

B8 To what extent do you think TV food advertising provides accurate information about the nutritional quality of the product being advertised?

Not at all	A little	Somewhat	A great deal
1	2	3	4

B9 To what extent, if at all, are you concerned about the following aspects of food advertising at times children watch TV?

	Not at all concerned	A little concerned	Somewhat concerned	Very concerned
a. The use of popular personalities or characters to promote unhealthy foods to children.	1	2	3	4
b. Food advertising that promotes free toys or gifts with products.	1	2	3	4
c. TV food advertising that promotes only the healthy aspects of the product.	1	2	3	4

SECTION C

Indicate to what extent you agree or disagree with the statement. Mark the applicable block with a cross (X).

		Strongly Disagree	Disagree	Agree	Strongly Agree
C1	Advertisements provide information regarding available products	1	2	3	4
C2	Advertisements encourages discussion of products within the family	1	2	3	4
C3	Children are able to distinguish between programmes and advertising	1	2	3	4
C4	Children understand the commercial intent of advertisements	1	2	3	4
C5	Television advertising to children uses tricks and gimmicks	1	2	3	4
C6	It is ethically and morally acceptable for food companies to try to influence the food preferences of children under the age of 14.	1	2	3	4
C7	There are too many ads in television programmes directed at children	1	2	3	4
C8	There is too much sugar and fat in food products advertised in television programmes directed at children	1	2	3	4
C9	There are too many additives in food products advertised in television programmes directed at children	1	2	3	4
C10	Advertised foods on television is an important cause of unhealthy eating habits	1	2	3	4
C11	Advertising of sugar snack foods increases the risk of tooth decay in children.	1	2	3	4
C12	Advertising of snack foods makes it harder to get children to eat their meals.	1	2	3	4
C13	Television advertising is an important cause of my children pestering me for advertised products	1	2	3	4
C14	Television advertising encourages my children to want products they don't need	1	2	3	4
C15	Television advertising to children leads to family conflict (when discussing food choices)	1	2	3	4

SECTION D

Indicate to what extent you agree or disagree with the statement. Mark the applicable block with a cross (X).

		Strongly Disagree	Disagree	Agree	Strongly Agree
D1	Regulations exist that deal with TV advertising to children.	1	2	3	4
D2	Based on the food advertised during children's viewing hours, the current regulations are effective.	1	2	3	4
D3	The government should introduce stronger restrictions on food advertising at times when children watch television.	1	2	3	4
D4	Lack of adequate government control of television allows advertisers to take advantage of children.	1	2	3	4
D5	Commercials that use popular programme characters to sell products to children should be banned.	1	2	3	4
D6	Government's regulation of television programming for children is in the best interests of the children.	1	2	3	4
D7	The Government should impose limits on the time devoted to commercials during children's viewing times.	1	2	3	4
D8	Television advertising directed at children needs to be regulated by people who are NOT directly involved with the selling of products to children.	1	2	3	4
D9	Schools should play a more active role in educating children on the pros and cons of advertising.	1	2	3	4

D10 At the moment action is only taken against breaches of the advertising regulations when people make a formal complaint. Would you support or oppose the system being changed so that action is taken against breaches any time they occur?

Strongly oppose	Oppose	Support	Strongly support
1	2	3	4

D11 The following are some suggestions that people have made about the advertising of food on TV. Please indicate with a cross (X) whether, in general terms, you support or oppose **each** suggestion.

	Strongly oppose	Oppose	Support	Strongly Support
a. **Allow** current TV advertising of food and drink products to children to continue	1	2	3	4
b. **Reduce** the advertising of food and drink products to children on TV	1	2	3	4
c. A **total ban on ALL food** advertising	1	2	3	4
d. A **ban** on ALL food and drink advertising **at times** when children watch TV	1	2	3	4
e. A **ban** on ALL food and drink advertising that is **designed** specifically to appeal to children	1	2	3	4
f. A total ban on advertising of **unhealthy** foods	1	2	3	4
g. A ban on advertising of **unhealthy foods at times** when children watch TV	1	2	3	4
h. A ban on **unhealthy** food advertising that is **designed** specifically to appeal to children	1	2	3	4

SECTION E

Mark the applicable block with a cross (X).

E1 Food and drink products are advertised to children in a number of ways. How concerned, if at all, are you about advertising in the following ways to promote unhealthy food to children?

	Not at all concerned	A little concerned	Somewhat concerned	Very concerned
a. Using cartoon characters, for example on packaging or in-store displays	1	2	3	4
b. Over the internet, for example, using internet games	1	2	3	4
c. Using email or SMS messages	1	2	3	4
d. In children's magazines	1	2	3	4
e. By using toys and give-aways	1	2	3	4
f. Through competitions	1	2	3	4
g. Through promotional fundraisers for schools and community organisations	1	2	3	4
h. Via the sponsorship of children's sporting activities	1	2	3	4
i. Using well-known personalities, such as entertainers, movie stars or sportspeople	1	2	3	4

Indicate how you would end each of the following statements. Mark the applicable block with a cross (X).

E2 Do you think radio advertising of food and drink products to children should be……

i.	ALLOWED to continue at current levels	1
ii.	REDUCED compared with now	2
iii.	STOPPED when it comes to UNHEALTHY food and drink products	3
iv.	STOPPED for all food and drink products	4

E3 Do you think newspaper advertising of food and drink products to children should be……

i.	ALLOWED to continue at current levels	1
ii.	REDUCED compared with now	2
iii.	STOPPED when it comes to UNHEALTHY food and drink products	3
iv.	STOPPED for all food and drink products	4

E4 Do you think magazines advertising of food and drink products to children should be……

i.	ALLOWED to continue at current levels	1
ii.	REDUCED compared with now	2
iii.	STOPPED when it comes to UNHEALTHY food and drink products	3
iv.	STOPPED for all food and drink products	4

E5 Do you think cinema advertising of food and drink products to children should be……

i.	ALLOWED to continue at current levels	1
ii.	REDUCED compared with now	2
iii.	STOPPED when it comes to UNHEALTHY food and drink products	3
iv.	STOPPED for all food and drink products	4

E6 Do you think outdoor posters advertising of food and drink products to children should be……

i.	ALLOWED to continue at current levels	1
ii.	REDUCED compared with now	2
iii.	STOPPED when it comes to UNHEALTHY food and drink products	3
iv.	STOPPED for all food and drink products	4

E7 Some companies use the internet, competitions and the like to collect contact information from children. This information is sometimes used for marketing directly to children. Do you agree or disagree with this practice?

Strongly agree	Agree	Disagree	Strongly disagree
1	2	3	4

E8 Do you agree or disagree that regulations should be introduced requiring companies to get consent from parents before they can use children's contact information for marketing?

Strongly agree	Agree	Disagree	Strongly disagree
1	2	3	4