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MARKETING OF FOODS AND NON-ALCOHOLIC BEVERAGES TO CHILDREN IN THE ACCRA METROPOLITAN DISTRICT OF THE GREATER ACCRA REGION OF GHANA

BY

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DECLARATION

I, Edinam Kwaku Amegashie, hereby declare that, with the exception of cited literature, this dissertation is the result of my own original research and this has not been presented elsewhere either in part or in whole for purposes of the award of another degree.

Edinam Kwaku Amegashie …… ……

Student Signature Date

CERTIFICATION

I hereby certify that this research was supervised in accordance with the procedures laid down by the University of Ghana.

Dr. Richmond Aryeetey …… ……..……..

(SUPERVISOR) SIGNATURE DATE

DEDICATION

This work is dedicated to God, who has seen me through and has caused His grace to abound and flourish in my life. I am extremely grateful to Him for making this significant attainment possible.

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I am grateful to my family for their awesome support, care and love, especially to my parents, Mr Amegashie and Mary B, my sister, Awushie and my cousin, Reena.

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ABSTRACT

Background: Non-communicable diseases (NCDs) are currently a major public health concern all over the world. A major risk factor for NCDs is obesity. Childhood obesity is a global health challenge with over 42 million children affected.

One major factor that influences obesity in children is their diet. Marketing of foods affects the choice of foods children desire and demand from their parents. Food marketing occurs through multiple techniques including electronic media (e.g. internet, social media, television, radio, etc.), printed media, restaurants, and even through sponsorship of educational materials. To address the effects of such marketing influences, the World Health Organization (WHO) has developed a set of recommendations which seeks to provide guidance for regulation of unethical food marketing to children. The aim of this study was to identify and describe marketing of processed energy-dense foods targeting children in Ghana. The specific objectives were to describe the perceptions of parents about marketing of these foods to their children, the influence of food marketing on the children and the statutory, policy and regulatory framework existing in the country regarding food marketing to children.

Methodology: The study was a cross-sectional study using mixed methods approach. Questionnaires were administered to parents of children aged 5 to 13years old. Systematic random sampling was done to identify the children. Document reviews were also performed of the Public Health Act of Ghana, revised guidelines for advertisements of the Food and Drugs Authority and the National Nutrition Policy. An interview was also conducted with an expert in child welfare from the United Nations Children Fund (UNICEF). Quantitative data were analysed using frequencies and proportions, chi-square analysis and logistic regression models using Stata

version 14. The information obtained from the interview was transcribed and analysed.

Results: The study showed that parents are aware of the different techniques of food marketing to their children, such as the use of animated characters and famous personalities. Fifty-five percent of parents reported their children's eating preferences had changed due to exposure to food advertisements. The document review showed that the current policies, documents and guidelines existing in the country have no legal provisions for regulation of food marketing to children, in particular. The expert believed regulation of food marketing to children was the sole prerogative of government.

Conclusion: Children are exposed to different techniques of food marketing on a daily basis. Food marketing has an influence on children's request patterns and eating preferences. The current regulatory framework in the country has no legal provisions for food marketing to children.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

BMI – Body Mass Index

CSOs – Civil Society Organisations

FDA – Food and Drugs Authority of Ghana

NCD – Non-communicable diseases

NGOs – Non-governmental Organisations

UNICEF – United Nations Children's Fund

WHO – World Health Organisation

DEFINITION OF TERMS

Food marketing: the various activities and processed that promote processed energy-dense foods and non-alcoholic beverages.

Processed energy-dense foods: foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids.

CHAPTER ONE

INTRODUCTION

1.1 Background

Non-communicable diseases (NCDs) are currently a major public health concern all over the world. NCDs affect the health of the individuals and could ultimately affect economic productivity and growth of a country. They could also reduce the quality of life of the individual and ultimately cause death. Cardiovascular diseases, diabetes, chronic respiratory diseases and cancers, the four major types of NCDs, are estimated to cause 82% of the 38 million deaths from NCDs each year. About 80% of such deaths occur in developing countries. (WHO, 2014)

Unhealthy diets and lifestyles serve as major risk factors for most of these NCDs (Ozcariz, Bernardo, Cembranel, Peres, & González-Chica, 2015). Unhealthy diets are linked with increased blood glucose, impaired lipid profiles, increased blood pressure and overweight and obesity. Unhealthy diet, together with other factors such as physical inactivity, greatly increases the prevalence of NCDs in different populations around the world. The issue is that most of these foods have high level of calories but are low in nutrients and this serves as a source of public health concern. Unhealthy foods normally have a high content of saturated fats, salt, added sugars, and trans-fatty acids.

Obesity is now a major source of concern as it is the fifth leading factor that causes deaths globally (WHO, 2010). Over one-fifth of the world's population is obese (DeNicola, Aburizaiza, Siddique, Khwaja, & Carpenter, 2015). In 2013, 42 million

children less than five years of age were estimated to be either overweight or obese (WHO, 2014). Being overweight at such young ages has been associated with a high risk of being obese in future (Vos, Kaar, Welsh, Van Horn, Feig, Anderson, Patel, Cruz Munos, Krebs, Xanthakos, & Johnson, 2016). It also predisposes the child to immediate health problems such as a high blood pressure, or even resistance to insulin (Nadeau, Maahs, & Eckel, 2015). In some children, being obese reduces their self-esteem and creates an inferiority complex (Baskin, Herbey, Williams, Ard, Ivankova, & Odoms-Young, 2014).

Optimal diets help prevent obesity and NCDs. Optimal dietary choices are influenced by a number of factors such as availability and accessibility to healthier food options. The environment in which children find themselves influences the kinds of diet they are exposed to. Changes in food systems and food availability have changed the entire food environment. Agricultural policies, innovations in technology, economic and social factors, as well as lifestyle preferences have contributed to changes in the food environment. Currently, fast food outlets are widespread and convenience foods are found in different range of shops. These foods are cheap and readily available to children. Together, these changes have caused a shift in dietary patterns and preferences of society and also children. The widespread nature of these foods greatly challenges the efforts to get children to maintain healthy weights. (Story, Kaphingst, Brien, & Glanz, 2008; WHO, 2010)

One major reason for the proliferation of foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids is the extensive nature of marketing techniques of such foods to children (Lobstein, 2013). Food manufacturing

companies employ a range of techniques in marketing foods to children. There is much evidence that television advertisements greatly influence the kind of food children tend to prefer and ultimately request for, and the kind of food they consume (Bruce, Pruitt, Ha, Cherry, Smith, Bruce, & Lim, 2016). Aside the use of television however, children are also exposed to other techniques of marketing. Techniques such as internet marketing, sales promotions, sponsorships, product placements, in-school marketing and use of celebrity figures are also being employed to market such foods to children (Corinna, 2004). All these further expose children to different choices of foods, most of which are unhealthy. They also influence the kind of diets the children ultimately prefer when they grow older (Puhl & Schwartz, 2003).

There is, therefore, a need to shield children from the impact of such marketing strategies. One of such approaches to effectively achieve this is through regulations enacted to control the marketing of foods to children. Such regulations could either be statutory and backed by law or be policies to guide self-regulation by key industry players (WHO, 2010). To ensure this, the World Health Organisation (WHO), at its sixty-third World Health Assembly in 2010, proposed a set of recommendations to member states to help them design new and/or strengthen existing policies on food marketing to children. One of such recommendations is the encouragement of member states to produce evidence of the effects of food marketing to children and the nature of these marketing techniques to children, in their respective countries. In addition, member states are encouraged to invest in research into this field, specially focusing on the implementation and subsequent evaluation of set policies that seek to

lessen the impact of marketing of foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids (WHO, 2010).

These recommendations serve as part of the global strategy to prevent and control NCDs. They seek to help develop a food environment that enables children to make healthy choices about their diet and thus maintain weights which would be healthy. The recommendations also seek to ensure food marketing to children is done responsibly and thus reduce the impact of marketing of unhealthy foods on children. (WHO, 2010)

These recommendations have, however, not been implemented in many countries. Many member states do not have evidence from either national data or empirical research that helps them determine the impact of such marketing to children. Policies are not in place in most countries, and in cases where they are, are weakly or not implemented.

There is, therefore, the need for research to provide data on the local marketing techniques and the statutory, policy and regulatory framework related to the marketing of food to children in Ghana.

1.2 Problem statement

Marketing has been found to take various techniques and to use different media to get to the children. Children are easily moved by what they see or hear around them and this influences the choices they make about food (Anschutz, Engels, & Van Strien, 2009; Bruce et al., 2016). It is thus important to shield them from the impact of

marketing of foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids. Interestingly, in most of the countries which contribute the most to prevalence of childhood obesity, there is little data and research to demonstrate the effects of marketing on children (Corinna, 2004).

Plans to regulate food marketing to children have been discussed globally, but without any corresponding actions at country or sub-national levels. Such plans include the need to develop statutory regulations by governments, the need to develop self-regulatory codes by food and beverage companies and advertising agencies, the need to pay attention to older media of advertisement such as use of television while keeping an eye on new media such as the use of the internet and the need to put in place mechanisms for evaluating policies and regulations (Hawkes, 2007).

This research seeks to provide data on the local situation pertaining to the Ghanaian market.

1.3 Conceptual Framework

The framework for this study will be adapted from Story et al. (2008) as shown in Figure 1.1. It shows the different factors which influence what people eat.

There are personal factors which depend on the individual involved. One's cognition greatly affects food choices. The attitudes, preferences for particular kinds of diets, the knowledge of the individual as well as his/her values determine what the person eats. The skills and behaviour of the individual in addition to the lifestyle patterns are personal traits which influence food choices. These, together with the biological factors such as gender and age, as well as demographic factors such as income, all influence the food choices. These factors are often linked with other individual

characteristics such as outcome expectations, motivations, self-efficacy and behavioural capability of the individual and they impact on the kind of food choices an individual makes, healthy or otherwise.

No man is an island and beyond the individual factors, there are different environments which impact the kind of choices available and ultimately the diet one consumes. There is the social environment in which we live. The social networks of family and friends, as well as peers influence the kind of diet through role modelling, social support and social norms. Children in particular are greatly influenced by what they see their parents, elder siblings and peers at school do.

Beyond these however, the physical settings would ultimately affect the way people purchase and eat food. The kinds of foods available at home, in schools and after school settings, at child care centres and in the neighbourhoods and communities influence the kind of foods eaten. In addition, the proliferation of fast food outlets and restaurants, supermarkets and convenience stores all make certain kinds of foods available, or otherwise, ultimately influencing what people eat. These all control the access to and availability of certain foods while determining barriers and opportunities that either prevent or promote healthy living.

There are factors that have a very powerful effect on food choices, due to the fact that they impact choices at the societal level. This effect is somewhat indirect to the individual but greatly felt at the population level. These macro-level factors include cultural norms and societal values, food and beverages industries, food marketing and media, and food and agricultural policies. The economic systems, government

policies, food assistance programmes and health care systems, through the various legislative, regulatory or policy actions greatly influence what people eat.

The different levels of influence, that is, at the macro-level, the physical environment, the social environment and the individual level have interactions that influence eating patterns and choices, either directly or indirectly. (Story et al., 2008)

The focus of this study will be on the factors at the macro-level which influence food choices.

The major emphasis of this study would be on the food and beverage industry, food marketing and media and on government structures and policies.

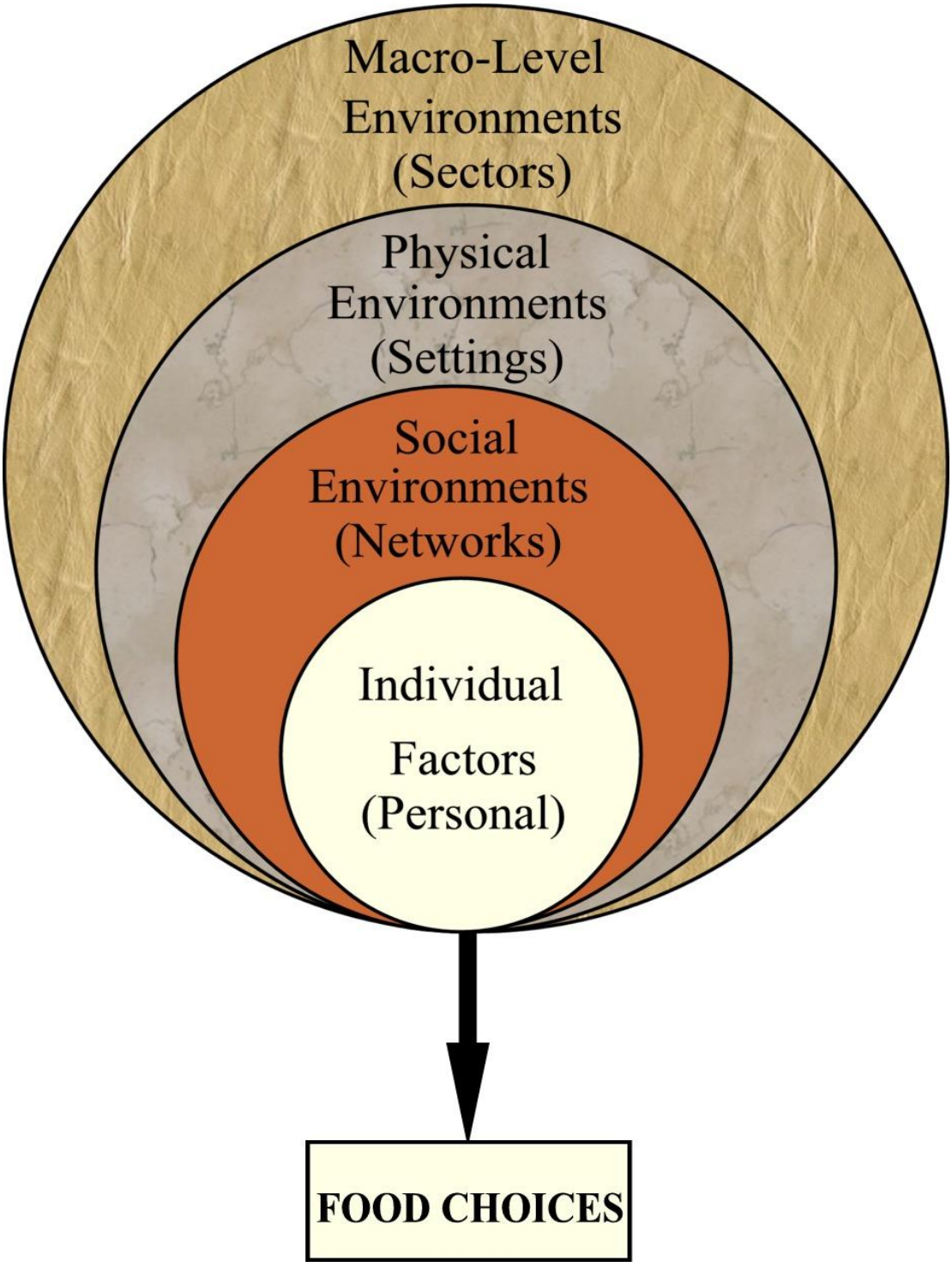

Figure 1.1 Conceptual framework adapted and modified from Story et al. (2008)

1.4 Justification

The prevalence of obesity is increasing in the general population and children are also being affected. Childhood obesity is now a problem with the number of children less than five years estimated to be either obese or overweight being 42 million. This number does not include those above five years and teenagers. This is an alarming trend because it is believed this figure would rise in subsequent years. The advancements in technology have made children spend less time outdoors engaging in physical activities. This is because computer games, internet browsing and watching of television seem more appealing in recent times. This level of inadequate physical activity contributes to obesity (WHO, 2014).

The major factor which impacts on obesity is the dietary patterns and habits of children. There are more highly sweetened drinks around. Aside that, foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids are readily available. The packaging and marketing of such foods makes children readily crave for them. Marketing therefore influences food choices of children and it must therefore be regulated to protect children from its impact. The WHO, in recognising this has proposed a set of recommendations for the regulation of such foods. There is however very little work that has been done in developing countries to show whether these recommendations have been carried out, or the progress towards their accomplishments.

This study, when carried out, will be in line with the WHO recommendations of supporting further research on the topic. It would also provide national data and

research evidence that identifies the extent and nature of marketing of food to children and the effects it has on them.

The recommendations from this study would help policy makers formulate, implement, monitor and evaluate relevant policies that would shape the marketing industry in Ghana. Industry players would also benefit from the research as they would be given a clear picture of the current situation. This would help them better appreciate the extent marketing is impacting food choices of children.

1.5 Objectives

1.5.1 General Objectives

The general objective of this study is to identify and describe marketing of processed energy-dense foods targeting children in Ghana.

1.5.2 Specific Objectives

The specific objectives of this study are:

1. To identify and describe the techniques of marketing of food to children in Ghana.
2. To describe the perceptions of parents regarding marketing of unhealthy food to children.
3. To describe the influence of food marketing to children on their request patterns and eating preferences.
4. To describe the statutory, policy and regulatory framework related to the marketing of food to children in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Appropriate literature relevant to the study topic is reviewed in this chapter. Major areas to be covered include:

- Childhood obesity
- Marketing approaches
- Effects of food marketing
- World Health Organization set of recommendations

2.1 Childhood obesity

Obesity refers to the situation where excess fat is accumulated and stored in the body (Yanovski, 2016). This happens when the energy expended is less than that consumed (Schoeller, 2009). In children, obesity is said to occur when the body-mass index is equal to or greater than the 95th percentile for that gender and age (Koyuncuo, 2014). Aside having effects on the children during their childhood, obesity often progresses into adulthood, making it a major concern (Brown, Halvorson, Cohen, Lazorick, & Skelton, 2016). Different factors are believed to contribute to childhood obesity. A genetic predisposition in addition to physical inactivity and consumption of energy-dense foods contribute to childhood obesity (Nadeau, Maahs, & Eckel, 2015; Czajkowski, 2017).

2.1.1 Epidemiology of childhood obesity

The World Health Organization in 2010, estimated that over 42 million children less than five years of age are overweight (WHO, 2010). Childhood obesity is a global epidemic which has attracted a lot of research (Wang, Wu, Wilson, Bleich, Cheskin, Weston, Showell, Fawole, Lau, & Segal, 2013), with data suggesting it could cause a drop in life expectancy, in a few years to come (Ng, Fleming, Robinson, Thomson, Graetz, Margono,…& Gakidou, 2014).

The prevalence of childhood obesity, between 1990 and 2010, has increased from 4.2% to 6.7%, and this is estimated to increase to 9.1% by 2020, if current trends continue. This prevalence differs from country to country and even within countries. The highest incidences of childhood obesity have been recorded in Brazil, the United States of America, and China (Malik, Willett, & Hu, 2012). Countries with low-income levels are also battling with childhood obesity and are reported to carry a greater burden of obesity (Malik et al., 2012). In Sub-Saharan Africa (SSA), obesity is about 2.0% in boys and 3.9% in girls. Within countries in SSA, higher body weights of children are associated with higher socioeconomic status of the families they belong to (Muthuri, Francis, Wachira, Leblanc, Sampson, Onywera, & Tremblay, 2014). In Ghana, studies to determine the prevalence of childhood obesity have been in specific geographical areas and have therefore shown varying results (Mohammed & Vuvor, 2012; Alangea, 2014; Kumah, Akuffo, Affram, & Osae, 2015; Opuni-Frimpong, 2015). Data for the national prevalence of obesity in children is unavailable.

2.1.2 Determinants of obesity

Obesity is determined by a multiplicity of factors, related to the individual (genetic or acquired factors) and the environment in which s/he finds him/herself (Papoutsi, Drichoutis, & Nayga, 2011).

Some genes have been found to predispose individuals to accumulation of excess body fat (Stewart, 2010). Such individuals tend to accumulate fat more readily and easily than others without such genetic influences, thus having higher BMIs. Even though genes have about 40% influence on weight gain (Wardle, Carnell, Haworth, & Plomin, 2008), less than 1% of all cases of obesity in children are caused directly by a disorder in the genetic makeup (Campbell, Lang, & Summerbell, 2005).

Aside genetic influences, dietary influences on weight have been established. What children eat is influenced by what is available to them. Even though the tendency to eat what they do not like is lower, children eat what is served to them at home (Holsten, Deatrick, Kumanyika, Pinto-martin, & Compher, 2012), irrespective of its quality. When given options however, children choose sugar-sweetened beverages, snacks and processed energy-dense foods which are low in nutrients over low-fat dairy products, vegetables, fruits and nutrient-dense foods (Holsten et al., 2012; Ludvigsen & Scott, 2017). Consumption of such sugar-sweetened beverages has been associated with increased intake of energy, increased body weight and obesity during childhood (Vartanian, Schwartz, & Brownell, 2007). This preference for unhealthier options progresses even into adulthood (Ilich & Brownbill, 2010). Aside what they eat, how much they eat also influences their body weights. Bigger sizes per portion

are associated with increased energy intake and promote increase in body weight (Livingstone & Pourshahidi, 2014).

Aside these factors, the level of physical activity has been associated with body weight and obesity. Children who engage in more sedentary lifestyles tend to have higher BMIs, compared to those who are more physically active. One explanation for this has been the fact that such sedentary activities like listening to music or performing mental tasks, increase overeating of food, thus increasing energy consumption and leading to a positive caloric balance (Chaput, Klingenberg, Astrup, & Sjödin, 2010). In addition, increased physical activity is associated with a reduced risk of obesity (Strasser, 2013). A lifestyle combination of low physical activity and high sedentary behaviour tends to increase the odds of obesity (Cleland, Schmidt, Salmon, Dywer, & Venn, 2014).

Beyond this, there are also micro and macro factors which affect obesity. The micro level refers to individuals or groups or clearly defined settings such as homes, schools and neighbourhoods. The macro level covers broad sectors such as the food industry, government services or supporting infrastructure that may influence diet, physical activity or weight status. The economic dimension includes the costs of providing and obtaining food and physical activity. The political dimensions include formal and informal policies and rules and regulations regarding food and physical activity. The sociocultural dimension includes the beliefs, values and attitudes concerning food and physical activity. It also includes perception of safety within neighbourhoods; school or community pressures to lead healthy lifestyles (Story et al., 2008).

2.1.3 Effects of childhood obesity

Childhood obesity has several effects on children; both during childhood, and later in adult life. During childhood, it impairs glucose tolerance and causes insulin resistance, thus predisposing them to type 2 diabetes mellitus. It also makes children prone to fatty liver disease and the metabolic syndrome (Nadeau et al., 2015). Their breathing becomes problematic and this affects their sleep at night, as they have to gasp for breath ever so often (Han, Lawlor, & Kimm, 2011). Adults who were obese as children tend to have problems with their bones and joints (Esposito, Caskey, Heaton, & Otsuka, 2013), and these adults are at a higher risk for cardiovascular diseases, compared to those who were not obese during childhood (Nadeau et al., 2015). Aside these health problems, children who are obese are often teased by their colleagues, making them withdraw from social interactions, as well as giving them a low sense of self-esteem (Mcclure, Tanski, Kingsbury, Gerrard, & Sargent, 2011)

2.2 Marketing

Marketing refers to the activities, institutions and various processes meant to create, communicate, deliver and exchange services that provide value for partners, clients, customers and the society (Ali & Talwar, 2013).

Marketing involves a set of different activities that aim at promoting goods and services. To achieve this aim, different strategies and techniques are employed. One major marketing activity is advertising (Story & French, 2004).

Advertising involves payment for promotion of goods, services or organizations by a sponsor with the sole aim of turning the minds of a target audience to what is advertised (Moriarty, Mitchell, Wells, Crawford, Brennan, & Spence-Stone, 2015)

Marketing of food to children takes on various techniques including television advertisements, the use of the internet, product-branded books and toys, in-school marketing and product placements.

2.2.1 Television Advertisements

The television serves as the most widely used medium in food advertisements (Berg, 2010; Cairns, Angus, Hastings, & Caraher, 2013). Children spend a lot of hours watching television and the television serves as an important source of information on food to children (Bell et al., 2013; Li, Wang, Cheng, Zhang, Yang, Zhu, Liu, Yang, & Zeng, 2016). Most of the foods advertised, however, are unhealthy and contain high content of added sugars and fats, but low level of nutrients, and different studies show that such adverts influence the food choices of children (Anschutz, Engels, & Van Strien, 2009; Bruce et al., 2016).

2.2.2 In-school marketing

The use of schools as avenues for advertising and marketing of foods is on the increase (Velazquez, Black, & Ahmadi, 2015). This is usually done because companies want to increase sales and make their brands more common with children. Research has shown that when children are acquainted with a particular brand, they tend to stick to it and remain loyal to it, irrespective of the product the brand is promoting (Sonntag, Schneider, Mdege, Ali, & Schmidt, 2015).

Activities related to in-school marketing of food include selling products directly to students (through the use of vending machines and stalls mounted in and around schools), advertising products both directly (through promotional leaflets and by paintings on school buildings) and indirectly to students (through sponsorship of educational materials and school extra-curricular activities) and using the students for various research projects on marketing (Powell, Harris, & Fox, 2013).

2.2.3 Product placement

Product placement refers to the practice of using specific brands, as a means of advertising that brand, in movies, music videos, video games etc. It has gained popularity because game/video producers enjoy sponsorship from manufacturers while the manufacturers get the opportunity to associate their brands with the games/videos. It is thus a win-win situation for both manufacturers and producers. Use of this strategy has been found to increase sales and promote brands. A major challenge, however, is that most of the food brands are very high in calories but low in nutrients (Powell et al., 2013).

2.2.4 Toys and products with brand logos

This is a method of advertisement where brand owners actively promote their brands using books, toys and other materials that appeal to children. They portray such materials as learning aids but really seek to incorporate their brands to children at very early ages (Story & French, 2004). Children easily get attached to toys and association of food brands with the toys causes the children to choose those brands consistently (Hendricks & Dalton, 2017).

2.2.5 Internet

The food industry is taking advantage of the rapid spread of technology and increasing use of social media to market their products to children (Freeman, Kelly, Baur, Chapman, Chapman, Gill, & King, 2014). This is because children are less likely to readily identify advertisements online, compared to those on television, and thus this serves as a subtle way of advertisement (Kelly, Vandevijvere, Freeman, & Jenkin, 2015). The use of the internet enhances association with brands and the long contact period children have with online services makes this strategy very rewarding. In addition, use of the internet to promote brands is cheaper than other methods, and marketers can actively monitor impact of their activities and make appropriate adjustments to increase effects on children (Kelly, Vandevijvere, et al., 2015).

2.3 Effects of food marketing

Marketing of food to children has been found to be profound, having several effects on them (Bree L. Dority, Mary G. McGarvey, & Kennedy, 2010). It influences their eating preferences, demand for food and consumption patterns (Veerman, Beeck, Barendregt, & Mackenbach, 2009).

When children are exposed to advertisements of processed energy-dense foods, their food preferences change to that which was advertised (Robinson, Borzekowski, Matheson, & Kraemer, 2007), away from healthier options (Kraak & Story, 2015). This has been shown to be consistent, irrespective of the technique of the marketing (that is, whether through television, online, use of celebrities, in-school etc.)(Roberto, Baik, Harris, & Brownell, 2009; Baskin et al., 2014). This desire for advertised foods

by the children is independent of their knowledge about nutrition (Reisch, Gwozdz, Barba, Henauw, Lascorz, & Pigeot, 2013), and this is a source of concern, considering the fact that majority of advertised foods are low in nutrients and high in calories (Boyland & Halford, 2013).

Exposure to marketing of processed energy-dense foods influences how often children eat these foods. When children are frequently exposed to food advertisements, they tend to demand for and consume such foods more frequently (Dixon, Scully, Wakefield, White, & Crawford, 2007; Buijzen, Schuurman, & Bomhof, 2008). These foods are generally low in nutrients and high in calories, and frequent consumption of such foods leads to a positive caloric balance, predisposing the child to obesity and weight gain (Schoeller, 2009).

2.4 World Health Organization Set of Recommendations

The World Health Organization, in a bid to provide a regulatory framework concerning marketing of foods to children, developed a set of recommendations in 2010. This is to provide the framework which would protect children from the untoward effects of marketing of processed energy-dense foods (foods with a high content of saturated fats, salt, added sugars, and trans-fatty acids). The main purpose of this set of recommendations is to provide guidance to member states in their efforts to either design new, or strengthen policies that exist on the marketing of processed energy-dense foods to children (WHO, 2010).

The WHO recommends that member states should develop relevant policies that aim at reducing the impact of marketing of processed energy-dense foods to children. This is in line with its broader goal to prevent and control the prevalence of non-communicable diseases (WHO, 2010).

Marketing is said to be effective based on how the message is carried across and how creative its contents are (WHO, 2010). The way the message is carried across has to do with its intended audience, how frequently the message is marketed and its impact on the audience. This influences the exposure to the message being marketed. How creative the contents of marketing are refers to the content of the message, how the content is designed and how the message is executed. This influences the power the message can have. Marketing is therefore said to be effective based on the combined effect of its exposure as well as its power. The WHO recommends that the overall objective of any formulated policy should be to lessen the exposure children have to the marketing of processed energy-dense foods and the power of the marketing messages on the children (WHO, 2010).

In achieving the aims and objectives of whatever policies that have been or would be set, the WHO recommends that member states consider the application of different approaches that would help mitigate marketing of processed energy-dense foods to children. The approaches could either be comprehensive or stepwise. A stepwise approach refers to the situation where the member state addresses the power or exposure independently, or deals with aspects of both power and exposure simultaneously, in a stepwise manner. In addressing exposure, the following must be considered: when the marketing would or would not be permitted, where it would or

would not be permitted, to whom it would be permitted or not, and for what products the marketing would either be permitted or not. In addressing the power of marketing, restriction of the use of the techniques of marketing that have powerful effects in particular, should be considered. A comprehensive approach, on the other hand, refers to the restriction of all forms of marketing of processed energy-dense foods to children. This approach completely eliminates the exposure and therefore the power of marketing of processed energy-dense foods to children. The different approaches have different levels of potential in achieving the policy aim of reducing the impact of marketing of processed energy-dense foods to children. However, using the comprehensive approach has the highest potential in achieving the maximum impact. In the selection of which approach would best suit it, the member state is advised to consider the resources available to it, as well as the unique circumstances pertaining in that country (WHO, 2010).

When the components of a policy are clearly defined, effective implementation can be expected with a higher sense of certainty. The definitions of the components of the policy would help determine the potential the policy has in reducing exposure, power and subsequently measure its impact. It is therefore recommended to the various governments to set clear definitions for the components of the policy which are very key, to allow a standard process of implementation. Such definitions should include the channels of communication for the marketing approaches, the marketing techniques and settings to be covered, the particular age groups the policy should apply to, the very definition of marketing of processed energy-dense foods to children, as well as the different types of foods whose marketing the policy aims at

restricting. Once definitions are clearly set, implementation is facilitated and becomes uniform, independent of whichever body is implementing the policy. In setting these key definitions, the peculiar challenges at the national level should be identified and addressed, in order for the policy to achieve maximum impact (WHO, 2010).

The WHO recommends that in places where children are likely to gather, no form of marketing of processed energy-dense foods should be made. Such places include schools and school playing grounds, day-care centres, nurseries, clinics as well as social gatherings such as sports or festivals. Such places are to offer a form of parental protection and everything that happens there should protect the child, causing no harm, in anyway whatsoever, to the well-being of the child. The children are in their formative years and their nutrition is important. Policies are therefore necessary to promote healthy eating, while restricting marketing of processed energy-dense foods (WHO, 2010).

Developing policies on marketing of processed energy-dense foods would involve stakeholders from various sectors. Such stakeholders include civil society organisations, the private sector, academia, non-governmental organizations, parents and the media. These different stakeholders have varying interests. In developing policies, the WHO recommends that governments act as the key stakeholders. This is because governments are better positioned in providing leadership and setting directions and strategies to achieve public health goals. Governments should provide several platforms for the various stakeholders, engaging them constantly to avoid any conflicts of interest, while protecting the interests of the public. Again, governments should spearhead the implementation of the policies, as well as their monitoring and

evaluation. Regular communication among all stakeholders should be done, according to the WHO, and governments can assign defined roles to the other stakeholders. This (assigning of roles) should be done devoid of conflicts of interest and in the protection of public interests (WHO, 2010).

A variety of approaches can help in implementing defined policies. One approach is by statutory regulation, which makes compliance and implementation a legal requirement. Another approach is voluntary self-regulation, spearheaded by specific industries (such as the advertising industry or non-alcoholic beverage industry). This is independent of statutory regulation but can still be scrutinised by government in setting of targets and monitoring of implementation using key pre-defined indicators. Another approach could be setting up mechanisms which are a mix of both statutory and self- regulation. The recommendation by WHO is that member states should critically examine and consider the most effective approach in reducing marketing of processed energy-dense foods to children, taking into account the various resources, benefits and burdens of the various stakeholders. However, any approach adopted should have a framework developed which would help in achieving the objectives of the policy (WHO, 2010).

The world is a global village, and there is constant flow of information, people, goods and services from one country to another. Member states are to ensure that all imposed restrictions on the marketing of processed energy-dense foods at the national level, also apply when dealing with marketing that leaves their borders to other lands, as well as to that which comes in from other countries. This is because the effects of the marketing approaches may be comparable, whether originating locally, or from

other territories. Member states are therefore advised to cooperate to put measures in place to reduce the impact of marketing of processed energy-dense foods across borders, so that maximum impact of any set policies concerning marketing of processed energy-dense foods is achieved (WHO, 2010).

In developing the policy framework, mechanisms for enforcement should be specified, and systems for policy implementation should be established. This recommendation is meant to encourage private sector involvement in the aims and objectives of the policy. Ultimately, protection of the child is the goal and to this end, the framework should also include a clear definition of sanctions to be applied, as well as a system for reporting complaints. This is to avoid undermining efforts aimed at restricting marketing of processed energy-dense foods across borders, such that children everywhere in this world are protected. In developing the framework and implementing the policy, the expertise, advocacy skills and capacity building potential of academia, non-governmental organizations and civil society organizations, should be harnessed (WHO, 2010).

Monitoring helps to provide a system to collect and document information on the progress of the policy in achieving its desired objectives. The WHO thus recommends that, to ensure the objectives in the national policy are complied with, all policy frameworks should include a system for monitoring, using indicators which are clearly defined. The framework should have a set of indicators for the process as well as the outcome, and should define roles clearly, assigning responsibility for the mechanisms and activities of monitoring to individuals or groups without any conflict of interest. All indicators used must be specific, quantifiable, and be validly and

reliably measured. They should also be relevant in measuring the effects of the policy on the reduction of exposure and power of marketing of processed energy-dense foods. The information that is collected and documented as a result of monitoring can be used to guide refinement and improvement of the policy and support the enforcement of the policy. The information can also be used in the documentation of compliance and in contributing to the evaluation of the policy (WHO, 2010).

The impact the policy has made, as well as its effectiveness, should be evaluated using clearly defined indicators. The policy framework, in addition to having a system for monitoring, should have a system for evaluation. Evaluation helps measure how impactful the aims and objectives of the policy are. It involves collecting data before the roll out of the policy, and using this as the benchmark, and then comparing it with subsequent data collected, all in a bid to assess impact (WHO, 2010).

Most member states lack evidence from research and national data that show the effects, nature and extent of marketing of processed energy-dense foods. The WHO therefore recommends that member states identify such information (if in existence) and encourage research into this area, especially on implementing and evaluating policies to reduce the impact of marketing of processed energy-dense foods to children. Such research could produce data to help in evaluation, as well as help inform the implementation and enforcement of policies (WHO, 2010).

These are the set of recommendations which were proposed by the WHO in 2010 to assist member states to regulate the marketing of processed energy-dense foods to

children. It urged all member states to take the steps necessary for the implementation of these recommendations, while considering existing country-specific policies, legislation and circumstances.

This chapter has sought to review available literature on childhood obesity, its epidemiology and effects. Marketing and the various forms it takes has also been reviewed, as well as its influence on children. The WHO set of recommendations, which serves as a guide in providing a regulatory and legal framework has also been reviewed.

CHAPTER THREE

3.0 METHODOLOGY

This chapter describes the different methods used for the study; the study design, study location, sampling techniques, data collection tool, data processing and analysis, quality control measures that were employed and ethical issues.

3.1 Study Design

This study was cross-sectional in design and employed the mixed methods approach. It was conducted in May and June, 2017. A survey of parents of children between the ages of five and thirteen was conducted, with structured questionnaires administered to them. An interview was conducted with an expert on child welfare at the UNICEF country office in Ghana. The following documents were reviewed: the Public Health Act (Parliament of Ghana, 2012), the revised guidelines for advertising of the FDA (Food and Drugs Authority, 2016), and the National Nutrition Policy (Government of Ghana, 2013).

3.2 Study Location for quantitative method

The study location for the quantitative aspect was a primary school in Adabraka, Accra. Adabraka is a major trading hub in the central business district of the Accra Metropolitan Area. Most of the indigenous inhabitants are petty traders. It is an urban community.

3.3 Study Variables for the quantitative method

The dependent variable was the perceived change in food preferences of children as reported by parents. This was derived from the answer of parents to the question "Have you observed any change in your child's eating preferences as a result of advertisements?"

The independent variables for this study were exposure to television advertisements within the past seven days and frequency of such exposure and exposure to advertisements from online sources within the past seven days and frequency of such exposure. Other independent variables include exposure to billboard advertisements within the past seven days, exposure to school signpost advertisements within the past seven days and frequency of exposure to product-branded books and toys within the past seven days. The variables of interest under perceptions include perceptions on use of famous people in advertisements, perceptions on sugar and fat content of advertised foods, perceptions on advertisements and children's knowledge about nutrition, perceptions on animated characters and advertisements and perceptions on child pestering and advertisements.

3.4 Sample size determination

The formula below proposed by Cochran, (1977) was used to determine the minimum number of parents to be interviewed.

$$n = \frac{z^2 p(1-p)}{d^2}$$

Where,

n = minimum number of parents required

Z = confidence level at 95% (that gives a standard value of 1.96)

P = estimated prevalence of obesity among children of that age bracket which is 10% (according to a study by Mohammed & Vuvor, 2012)

d = margin of error (5% was used)

The sample size was therefore:

$$\frac{1.96^2 \times 0.1(0.9)}{0.05^2}$$

This gave a sample size of approximately 139. To make up for non-response and errors in answering or recording data, an upwards adjustment of 15% was made to get 159 as the final number of people to be interviewed.

3.5 Sampling Approach

The 159 parents were obtained by systematic random sampling. The names of children between classes one and five were obtained, according to classes. 330 children were available in all. These names were assigned numbers (1 to 330). After the second number, every other number was chosen until the total of 159 was obtained.

3.5.1 Inclusion Criteria

All parents and guardians of children who were selected were used (all consented).

3.5.2 Exclusion Criteria

Those to be excluded were parents and guardians of children who were selected but were absent on the day of administering the questionnaires or parents who were not willing to participate in the study (none of such cases was encountered).

3.6 Pre-testing of questionnaires

The questionnaires were pre-tested in a basic school at Weija, in the Ga-South District of the Greater Accra Region of Ghana. 25 children, five each from classes one to five, were randomly selected. The questionnaires were then distributed to them to send home for their parents to answer the questions. This was done to help ascertain the ease of answering by the parents, the response rate and the reaction and co-operation of parents. After data entry and based on feedback obtained from some of the parents, most open-ended questions were changed to close-ended (based on answers obtained from pre-testing). Minor corrections (such as numbering of questions and font size corrections) were then made and the questionnaires were finalized, ready to be administered.

3.7 Data Collection Tools

A structured questionnaire was used in collecting data. Most of the questions were close-ended. The questionnaire was divided into three sections. The first part was

about socio-demographic information. The second part was about the different techniques of food marketing (those included in this study were television, internet, billboards, school signposts and product-branded books and toys). Parents were asked whether their children had been exposed to each of these techniques over the past seven days prior to administration of questionnaires. They were simply to answer either 'Yes' or 'No' to these questions. As a follow-up to this, parents were asked how frequently over the past seven days they felt their children had been exposed to these forms of marketing. Options provided were 'never', 'occasionally' (1-2 times), 'sometimes' (3-4 times), 'often' (5-6 times) and 'everyday'. With regards to their perceptions, parents were asked to tell how strongly they agreed or disagreed to given set of statements about food marketing. The questions were on whether famous people influenced advertisements, the use of animated characters in advertisements and effects of advertisements on food choices and healthy nutrition. Options provided were 'strongly disagree', 'disagree', 'neutral', 'agree', and 'strongly agree'.

The questionnaires were given to the selected children to take home to their parents. The filled questionnaires were taken back a day and two after.

An interview guide was used when conducting the interview with the key informant from UNICEF. Questions were asked on her knowledge of existing policies or regulatory framework, and who was to be held accountable for regulation of food marketing to children in Ghana. An audio recording of the interview was made.

The documents reviewed were obtained from online sources. Their contents were reviewed for any statements on food marketing to children, as well as on the regulation of food marketing to children.

3.8 Data entry and processing

Out of the 159 questionnaires that were given to the children, 155 were returned. The data were recorded in Microsoft Excel 2010 and cross-checked. For 'Yes' or 'No' responses, data were entered as '1' or '0' respectively. For the options ranging from 'never' to 'everyday', data were entered as values ranging from '0' to '5', respectively. For options ranging from 'strongly disagree' to 'strongly agree', data were entered as values ranging from '0' to '4' respectively. After cleaning, the total number of questionnaires for which valid responses were obtained was 149. The data were then exported to Stata (version 14, 2015; StataCorp, College Station, Texas) for analysis. The interview was manually transcribed verbatim.

3.9 Data Analysis

Data obtained from the quantitative study were analysed using Stata version 14. For socio-demographic information, frequencies and percentages were obtained and used in description of this information. Frequencies and percentages were also obtained to describe the responses obtained from the other sections of the questionnaire. A chi-square test was performed to find the different variables that were significantly statistically associated with the outcome variable. Any p-value obtained from this test that was less than 0.05 was said to be statistically significant and its corresponding variable was noted. Simple logistic regression tests were performed to ascertain the strength of the significant variables and the outcome variable. A multiple logistic regression model was then fitted and the variables that were found to be statistically significant were added to the model, to control for confounding. (Two variables, that

is, exposure to television advertisements and exposure to advertisements online were also added to this model, even though their p-values were higher than 0.05. This was because the literature search showed effects of such exposure on the changes in eating preferences and request patterns. They had no effect on the model and were dropped subsequently). Odds ratios obtained were then used in reporting the strength of the associations. The major theme from the interview was analysed manually.

3.10 Ethical Issues

The research was subjected to the following ethical considerations:

- The Ghana Health Service Ethics Review Committee granted approval for this study. The unique number for this approval is GHS-ERC: 15/02/17.
- Permission was obtained from the school authorities were both the pre-testing of questionnaires and actual work were done.
- Permission was obtained from the key informant before the audio recording was done.
- Mandatory consent forms were sent to the parents who signed and returned them before the questionnaires were given to the children
- The questionnaire was designed to keep the identities of the parents anonymous.
- The data obtained were stored on the principal investigator's computer, with back-up on an external hard drive. All copies of the data were password protected and accessible to the principal investigator only.

- There was no conflict of interest in this study.
- The research was funded solely by the principal investigator

CHAPTER FOUR

4.0 RESULTS

The results of this study are presented in this chapter. The chapter is organized under the following headings:

1. Socio-demographic information
2. Different marketing approaches children are exposed to
3. Parents' perceptions about marketing
4. Influence of food marketing to children on their request patterns and eating preferences
5. Statutory and legal framework for marketing of foods to children in Ghana

4.1 Socio-demographic information

4.1.1 Characteristics of parents who were interviewed

Table 4.1.1 displays the socio-demographic information of 149 parents who participated in this study. Seventy of the respondents (47.0%) were males. At the time of the study, 59.7% of respondents were married. A majority of the parents/guardians of the children were traders. Most of the respondents live at Adabraka, in Accra.

Table 4.1.1 Socio-demographic Characteristics of parents of selected children (N = 149)

Socio-demographic characteristics	Number	Percent (%)
Sex of respondent		
Male	70	47.0
Female	79	53.0

Current marital Status		
Single	41	27.5
Married	89	59.7
Divorced	3	2.0
Separated	9	6.0
Widowed	7	4.7
Relationship to child		
Son	65	43.6
Daughter	64	43.0
Grandchild	6	4.0
Extended family member	14	9.4
Highest educational level of mother/female guardian		
Primary	72	48.3
Secondary	52	34.9
Tertiary	15	10.1
Uneducated	4	2.7
Other	6	4.0
Highest educational level of father/male guardian		
Primary	41	27.5
Secondary	71	47.7
Tertiary	32	21.5
Other	5	3.4
Occupation of mother/female guardian		
Artisan	29	19.5
Trader	100	67.1
Professional	5	3.4
Office worker	3	2.0
Retired	3	2.0
Not employed	9	6.1
Occupation of father/male guardian		
Artisan	26	17.5
Trader	52	34.9
Professional	9	6.0
Office worker	34	22.8
Retired	4	2.7
Not employed	6	4.0
Other	18	12.1
Location of respondents		
Adabraka	73	49.0
Agbogbloshie	13	8.7
Others	63	42.3

4.1.2 Characteristics of children

Table 4.1.2 shows the characteristics of the children whose parents/guardians participated in the study. There were 76 males and 73 females. The mean age was 8.5 years (SD = 1.5). Majority of the children were either in class 3 or class 4. There was only 1 child from class 5.

Table 4.1.2 Characteristics of school children in Adabraka, Accra (N=149)

Socio-demographic characteristics	Number	Percent (%)
Sex of child		
Male	76	51.0
Female	73	49.0
Age group of child, years		
5 -7 years	40	26.9
8 - 10 years	101	67.8
11 - 13 years	8	5.4
Class of child		
Class 1	35	23.5
Class 2	33	22.2
Class 3	38	25.5
Class 4 & Class 5	43	28.9

4.2 Food marketing techniques children were exposed to within the past 7 days

Within the last 7 days prior to the interview, children were exposed to food marketing via different techniques and media. According to the parents, the television was the most common medium of food marketing the children were exposed to within the last 7 days prior to the interview. Also, 77.2% reported their children had been exposed to

food advertisements on television at least once during the past 7 days. This form of advertisement involves the use of short videos by advertising companies which portrays young children as characters who are happily enjoying the advertised foods. Other videos involve animated characters children are familiar with or even famous characters in the society. Product-branded books and toys were the next most commonly reported technique of food marketing. This form of marketing involves branding of books and toys by food companies with their logos or brand displayed. These branded products are then given to children as gifts, or at very low prices. Billboards were reported as the third most common technique of food marketing to children. Seventy-six of them, representing 51%, reported their children had been exposed to a food advertisement on a billboard at least once during the past 7 days. In this study, 39.6 % of parents believed their children had been exposed to such food advertisements displayed on school sign posts. Of the different techniques parents were asked about, the least frequently reported was via online sources. These food advertisements come as pop-ups on web pages, or scroll under the web pages, as children use them. They also take the form of short videos uploaded on pages dedicated to advertisements of these food products, which often have links from other sites children most often use. Aside these, advertisers take advantage of mobile applications such as the Whatsapp application, to send food advertisements across to children, in the form of short funny clips or short messages. Out of the 149 parents interviewed, 120 believed their children had not been exposed to food advertisements online. Table 4.2.1 shows the exposure of the children to the various marketing approaches within the last 7 days prior to the interview.

Table 4.2 Exposure of children to food marketing within the past week

Variable	Yes (%)	No (%)
Exposure of child to food advertisements on television	115 (77.2)	34 (22.8)
Exposure of child to food advertisements online	29 (19.5)	120 (80.5)
Exposure of child to product-branded books and toys	109 (73.2)	40 (26.8)
Exposure of child to food advertisements on school signpost	59 (39.6)	90 (60.4)
Exposure of child to food advertisements on billboards	76 (51.0)	73 (49.0)

4.3 Parents' perceptions about food marketing to children

Parents stated to what extent they agreed or disagreed on different statements related to advertisements. When asked whether they believed using famous people in advertisements influenced the food choices of their children for instance, 74, out the 149 parents, agreed. Ninety-one, out of the total number of parents, agreed that 'advertised foods improve their children's knowledge about a healthy diet.' Sixty-nine parents disagreed with the statement that 'advertised foods were the cause of family conflicts related to food.' When asked whether advertising of unhealthy foods should be prohibited, 8 of the parents remained neutral, neither agreeing nor disagreeing to this statement. Table 4.3.1 shows the perception of parents on food advertisements to their children.

Table 4.3.1 Parents' perception of food advertisements to their children

Perception	Extent of agreement, N (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Use of famous people affects advertisement	9 (6.0)	33 (22.2)	33 (22.2)	49 (32.9)	25 (16.8)
Advertised foods contain too much sugar	9 (6.0)	29 (19.5)	41 (27.5)	49 (32.9)	21 (14.1)
Advertised foods contain too much fat	8 (5.4)	35 (23.5)	47 (31.5)	47 (31.5)	12 (8.1)
Advertised foods contain too many additives	6 (4.0)	29 (19.5)	34 (22.8)	59 (39.6)	21 (14.1)
Advertised foods improve child's knowledge	4 (2.7)	25 (16.8)	29 (19.5)	74 (49.7)	17 (11.4)
Food advertisement influences child demands	6 (4.0)	34 (22.8)	25 (16.8)	62 (41.6)	22 (14.8)
Advertised foods cause of family conflicts	16 (10.7)	53 (35.6)	22 (14.8)	37 (24.8)	10 (6.7)
Advertised foods cause unhealthy food habits	10 (6.7)	49 (32.9)	26 (17.5)	44 (29.5)	20 (13.4)
Advertising should be prohibited	8 (5.4)	14 (9.4)	8 (5.4)	64 (43.0)	55 (36.9)
Desirable to use animated characters in promoting healthy foods	8 (5.4)	18 (12.1)	13 (8.7)	72 (48.3)	38 (25.5)

4.3.1 Perceptions on how parents were influenced by food advertisements when making food purchases.

Of the 149 parents interviewed, 107 parents reported that they are influenced by the nutritional benefits of the advertised foods, 10 of them by the brand or product packaging of the advertised food, and 9 of them are influenced when the food product is from a company famous for making food items.

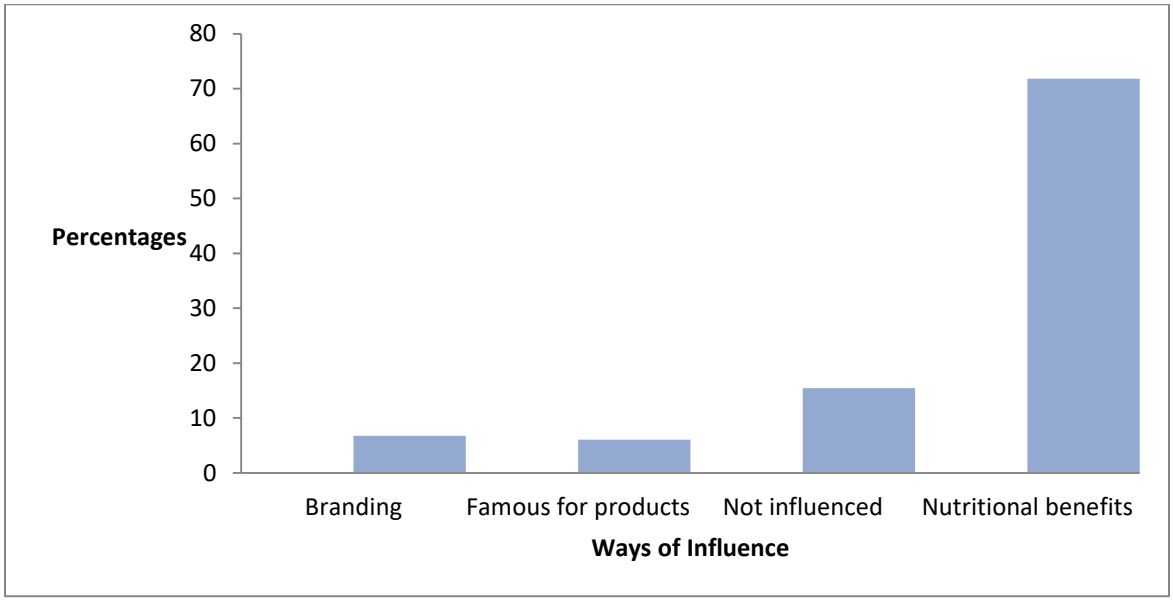

Figure 4.3.2: Ways parents are influenced when making food purchases

4.4 Influence of food marketing on children's request patterns and eating preferences

4.4.1 Influence of food marketing on children's request patterns

Children are influenced by food advertisements when making demands for food. Within the last 7 days prior to the interview, 71.8% of parents reported their children

had made requests for certain foods, at least once a week, just because they had been exposed to advertisements of those foods, with 10.1% reporting their children actually made such demands every day. Table 4.4.1 shows the frequency of demands by children for foods exposed to, through advertisements.

Table 4.4.1 Frequency of food requests in a week

How often child made request	Frequency	Percent
Everyday	15	10.1
Never	42	28.2
Occasionally (1-2 times)	31	20.8
Often (3-4 times)	15	10.1
Sometimes	46	30.9

4.4.2 Influence of food marketing on children's eating preferences

Eighty-two parents, representing 55.03%, believe their children's eating preferences has changed as a result of exposure to advertisements. This is shown graphically below:

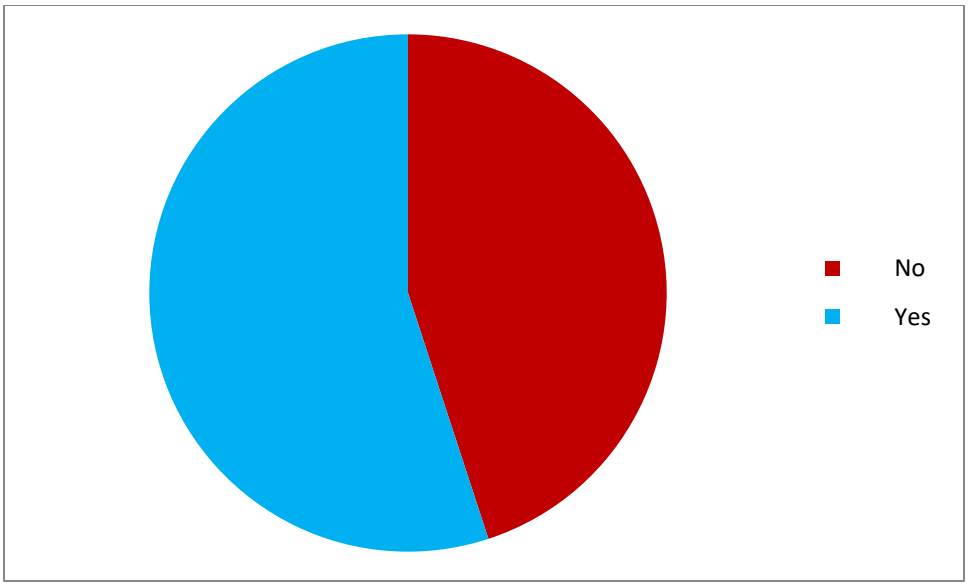

Figure 4.4.2: Change in children's eating preferences as a result of advertisements

To find out how parents perceptions influenced the children's eating preferences, a Chi-Square test was performed to find the association between changes in eating preferences and the other perceptions. The variables that were significantly associated with changes in eating preferences ($p<0.05$) include exposure to advertisements on billboards, how often the child made requests for foods exposed to by advertisements, the use of famous people affecting food choices, fat content of advertised foods, whether food advertisement was the reason children pestered parents and whether food advertisement was the cause of family conflicts. There was no significant association between changes in eating preferences and the other perceptions, or socio-demographic variables ($p>0.05$). The results of the chi-square test are shown in Table 4.4.2 below.

Table 4.4.2 Associations between changes in eating preference and demographic variables/perceptions of parents

Variable (N=149)	Changes in eating preferences			
	Yes	**No**	**Chi-square value (df)**	**P-value**
Sex of child			6.336 (1)	0.615
Male	41	35		
Female	41	32		
Age group of child, years			7.1858 (2)	0.519
5 - 7	18	22		
8 - 10	60	41		
11 - 13	4	4		
Marital Status of parent			4.538(3)	0.338
Divorced/Separated	7	5		
Married	52	37		
Single	19	22		
Widowed	4	3		
Exposure to TV advertisements			3.674(1)	0.055
Yes	52	32		
No	30	35		
Exposure to advertisements online				
Yes	14	9	0.374 (1)	0.541
No	68	58		
Exposure to billboard advertisements			4.138 (1)	**0.042**
Yes	48	28		

No	34	39		
Frequency of requests for advertised foods			9.902(4)	**0.042**
Everyday	10	5		
Never	16	26		
Occasionally	15	16		
Often	10	5		
Sometimes	31	15		
Exposure to signpost ads			3.468(1)	0.063
Yes	38	21		
No	44	46		
Famous people affects food choices			16.614(2)	**0.002**
Agree	50	24		
Disagree	16	26		
Neutral	16	17		
Advertised foods contain too much sugar			5.458(2)	0.243
Agree	43	27		
Disagree	20	18		
Neutral	19	22		
Advertised foods contain too much fat			12.093(2)	**0.017**
Agree	37	22		
Disagree	24	19		
Neutral	21	26		
Food advertisement influences child demands			25.364(2)	**<0.01**
Agree	60	24		

Disagree	15	31		
Neutral	10	15		
Food advertisement influences family conflicts			18.940 (2)	**0.002**
Agree	37	10		
Disagree	27	42		
Neutral	18	15		
Advertising should be prohibited			7.604(2)	0.179
Agree	68	51		
Disagree	10	12		
Neutral	4	4		

4.4.2 Relationship between changes in eating preference and other variables

To determine the relationship between the different variables of statistical significance and how they influence the change in eating preferences of children, logistic regression models were fitted. The results are shown in Table 4.4.2 below.

Table 4.4.2 Logistic regression model showing different perceptions and how they influence a change in eating preferences

Variable	Changes in eating preferences			
	Unadjusted		Adjusted*	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Exposure to billboard advertisements	1.966 (1.022-3.785)	**0.043**	1.207 (0.533-2.735)	0.652
No	Reference			
Yes	1.966 (1.022-3.785)	**0.043**	1.136	0.788
Frequency of requests for advertised foods	1.461 (1.113-1.918)	**0.006**	1.300 (0.948-1.783)	0.103
Never	Reference			
Occasionally	1.523 (0.595-3.900)	0.380	1.575 (0.439-5.648)	0.485
Sometimes	3.358 (1.398-8.066)	**0.007**	2.445 (0.734-8.139)	0.145
Often	3.250 (0.939-11.242)	0.063	1.377 (0.247-7.676)	0.715
Everyday	3.250 (0.939-11.242)	0.063	2.272 (0.432-11.935)	0.332
Famous people affects food choices	1.759 (1.296-2.386)	**<0.001**	1.601 (1.118-2.294)	**0.010**
Strongly disagree	Reference			
Disagree	1.300 (0.275-6.136)	0.740	1.328 (0.173-10.192)	0.785
Neither agree nor disagree	1.882 (0.402-8.824)	0.422	1.720 (0.232-12.752)	0.596
Agree	2.667 (0.597-11.914)	0.199	3.207 (0.444-23.164)	0.248
Strongly agree	14.667 (2.336-92.104)	**0.004**	14.438 (1.311-158.965)	**0.029**
Advertised foods contain too much fat	1.259 (0.917-1.728)	0.154	1.003 (0.681-1.476)	0.989

Advertised food is the reason children pester me	2.044 (1.468-2.847)	**<0.001**	1.697 (1.175-2.450)	**0.005**
Strongly disagree	Reference			
Disagree	0.400 (0.069-2.326)	0.308	0.247 (0.021-2.911)	0.267
Neither agree nor disagree	0.667 (0.111-3.990)	0.657	0.301 (0.024-3.710)	0.349
Agree	1.905 (0.353-10.273)	0.454	0.737 (0.070-7.791)	0.800
Strongly agree	6.333 (0.848-47.309)	0.072	1.392 (0.096-20.162)	0.809
Food advertisement is cause of family conflicts	1.606 (1.235-2.087)	**<0.001**	1.566 (1.164-2.107)	**0.003**
Strongly disagree	Reference			
Disagree	1.094 (0.346-3.462)	0.879	1.769 (0.379-8.268)	0.468
Neither agree nor disagree	1.667 (0.449-6.193)	0.446	3.582 (0.603-21.267)	0.160
Agree	5.185 (1.470-18.286)	**0.010**	6.617 (1.131-38.702)	**0.036**
Strongly agree	15.000 (1.503-149.670)	**0.021**	12.138 (0.729-202.123)	0.082
Can't tell	2.917 (0.594-14.327)	0.187	4.550 (0.590-35.075)	0.146

*Adjusted for exposure to advertisements on billboards, how often the child made requests for foods exposed to by advertisements, the use of famous people affecting food choices, fat content of advertised foods, whether food advertisement was the reason children pestered parents and whether food advertisement was the cause of family conflicts

Parents who believed their children had been exposed to advertisements of processed energy-dense foods on billboards were approximately 97% more likely to report their children's eating preferences had changed ($p<0.05$), compared to other parents who

didn't believe so. When this was adjusted for the other variables however, the relationship was found to be insignificant. Parents who reported their children asked them to purchase advertised foods 3 to 4 times a week, were 3.36 times more likely to report a change in eating preferences of their children ($p<0.05$), compared to parents whose children never made such a request. This became insignificant when the other variables were controlled for. Parents who strongly agreed that use of famous people in advertisements affected the food choices of their children were 14.7 times more likely to report a change in eating preferences of their children ($p<0.05$), compared to parents who strongly disagreed. This relationship still remained statistically significant when the other perceptions in the model were controlled for. Parents who either agreed or strongly agreed that food advertisements were the reason for family conflicts with regards to food were 5 times or 15 times respectively, more likely to say their child's eating preferences had changed, compared to those who strongly disagreed ($p<0.05$). When other variables were controlled for however, it was only those who agreed, whose odds still remained significant.

4.5 Statutory and legal framework for marketing of foods to children in Ghana

The Public Health Act, 2012 of Ghana, Act 851, is the legal enactment relevant to all matters relating to public health issues in Ghana (Parliament of Ghana, 2012). It deals with issues pertaining to prevention of disease, promotion, safeguarding and protection of health of people living in Ghana. A copy of the ACT is the document wherein the legal framework pertaining to issues about food can be found. This ACT gives legal backing to the Food and Drugs Authority (FDA), which is the body

responsible for providing and enforcing standards related to the provision and enforcement of standards related to the sale of food. A review of the ACT concerning advertisement of food and regulation of food marketing in the country revealed that the provisions made for food advertisement are that no one should advertise food in such a manner that gives the impression the food prevents or cures any disorder, disease or an abnormal physical state. Again, the ACT stipulates that no person shall advertise food unless this advertisement has gained formal approval by the Authority. According to the ACT, a person is said to have committed an offence if the person advertises, packages or labels a food in such a way to mislead, deceive or misrepresent a particular brand. Once a food advertisement violates the regulations or guidelines, the advertiser is said to have committed an offence. These are the various provisions made for the regulation of food marketing in the ACT. There is however nothing specific to food marketing to children, or its regulation, in the ACT.

The Food and Drugs Authority has a set of revised guidelines for advertisement of foods, in addition to the Public Health Act. These guidelines are aimed at ensuring that the advertisement of foods is conducted in a responsible manner, devoid of deception or misleading of the consumer (Food and Drugs Authority, 2016). The guidelines also seek to regulate the advertisements of alcoholic beverages so that exposure of minors to these advertisements is reduced. The guidelines are meant to provide operators of food industries with what the Food and Drugs Authority expects of them with regards to food advertisements. In addition to the guidelines found in the Public Health Act, these revised guidelines stipulate that no unapproved advertisements shall be allowed by any person to show on their medium (either print

or electronic). (Approved advertisements have an approval number). In advertisements of alcoholic beverages, advertisers are supposed to indicate clearly it is not to be sold to persons under the age of 18years, and such advertisements are not to run between 6:00 am and 8:00 pm. The guidelines forbid the use of famous personalities or professionals in advertising alcoholic beverages. Advertisements of alcoholic beverages should not appeal to minors, or be done in media targeted at such minors (examples of such media include journals, newspapers or magazines reserved for children). Again, in advertising alcoholic beverages, the use of cartoon or animated characters and children's songs is prohibited. Such advertisements should not be done in any facility designed for use by children or at any public function where children are likely to attend. In the advertisements of energy drinks, it should be clearly stated that the energy drinks are not recommended for those less than 18 years of age.

These revised guidelines, in addition to the provisions of the Public Health Act all address food marketing in general and advertising of alcoholic beverages to children specifically. No mention however, is made of marketing of foods and non-alcoholic beverages to children in particular in any of these documents.

As a policy measure, the National Nutrition Policy of Ghana, 2013 seeks to support efforts to prevent childhood obesity through communication on behaviour change regarding consuming healthy foods. This is the closest the policy touches on food activity related to obesity. No mention is made whatsoever on food marketing or its regulation.

The major theme that emerged from the interview with the expert on child welfare at the UNICEF Ghana country office with regards to the legal framework pertaining to the regulation of food marketing is that regulation was the sole prerogative of government and its agency; the Foods and Drugs Authority. According to her, the FDA is supposed to be in charge of regulation of food marketing to children, while the Ghana Standards Authority sets the standards for foods to be given to children. Some foods marketed to children, to the best of her knowledge, have not been certified by the FDA. The issue with regards to regulation is that the systems are plagued with problems of insufficient resources, both human and financial, which make regulation challenging. There was insufficient time to talk to other relevant agencies such as the FDA and Ghana Standards Authority.

A search for any policy document or guidance on marketing of foods to children in a school environment in Ghana did not yield any result.

CHAPTER FIVE

5.0 DISCUSSION

The objective of this study is to identify the different approaches used in marketing of processed energy-dense foods to children and to describe the perceptions of parents concerning the marketing of foods to their children. In this chapter, a detailed discussion is made of the findings of the study along the following lines:

1. Different techniques used in food marketing to children.
2. Perceptions of parents regarding food marketing to children.
3. Influence of food marketing to children on their request patterns and eating preferences
4. Statutory and legal framework for marketing of foods to children in Ghana

5.1 Different techniques used in food marketing to children

The different techniques identified as means of marketing of foods to children were through television, online sources, billboards, school signposts and product-branded books and toys. This shows a multiplicity of techniques by which children would most likely be exposed to advertisements. This result is consistent with a study by Lobstein (2013) which shows that advertisers are employing a mix of different strategies in advertising foods to children. Of these different techniques, it was realized that children are exposed to advertisements on television the most, therefore food advertisements aired on television would most likely have the greatest impact on food preferences and choices of children. This corroborates results from other studies which show that the television still remains the most frequent way by which food

advertisers get to children (Berg, 2010; Bruce et al., 2016). In this study, most parents believed their children were not exposed to online advertisement. This finding is however different from the study by Freeman et al (2014) which shows increasing use of online sources by food marketers to get across to children. It is either the children are exposed to such marketing on the blind side of their parents, or that the influence of online marketing has not yet reached those children. The use of billboards as a direct method of reaching to children, as stated by Harris & Graff (2011) was found out to be so in this study as a majority of the parents (51.0%) perceived their children had been exposed to food advertisements on billboards. School signposts, as a marketing technique, serve as a constant reminder of whatever is being marketed, which makes it a very strategic form of advertising. Food companies employ this in reaching to children (Harris & Graff, 2011). It is therefore not surprising some of the parents (39.6%) believed their children were exposed to such advertisement, although a majority reported otherwise. The use of product-branded toys and books is on the increase (Kraak & Story, 2015). It is of little wonder therefore, that 73.2% of parents believed their children had been exposed to product-branded books and toys. It is reported that most companies employ this strategy with a long term goal in mind; the ability of children to recognize and remain loyal to the brand. (Gregori et al., 2013; Sonntag, Schneider, Mdege, Ali, & Schmidt, 2015; Hendricks & Dalton, 2017)

5.2 Perceptions of parents regarding food marketing to children

Use of celebrities in food advertising to children has been known to have an appeal to children in a special way, influencing their food choices (Lobstein, 2013). Approximately 50% of parents interviewed could relate to this, showing that indeed the use of famous people in food advertisement affects food choices of children. A major concern with most of the foods advertised to children is the fact that they are dense in calories, with very low nutrient quality (Harris & Graff, 2011; Scully, Wakefield, Niven, Chapman, Crawford, Pratt, Baur, Flood, Morley, & Study, 2012; Boyland & Halford, 2013; Kraak & Story, 2015; Emond, Smith, Mathur, & Sargent, 2015). Most are high in added sugars, saturated fats, free fatty acids etc. and they have very little nutrients to offer. Parents reported similar views, with approximately 50% reporting they believed advertised foods contained too much sugar, 40% agreeing they contained too much fat and 54% reporting the foods contained too many additives (salts, spices etc.). This is a source of concern given the fact that advertisement predisposes the children to making increased demands for such foods. Again, use of animated characters for promotion of foods high in sugar and fat is a common phenomenon, causing children to make increased demands for such foods, more out of affinity for the animated characters, than for the actual product itself (Hendricks & Dalton, 2017). The attachment to these animated characters used in advertisements, most often favourite and popular cartoon characters, according to the authors of this study, influences food choices of these children. Parents are conscious of this and actually reported that due to this, advertisement of foods with high sugar

and fat contents, should not involve animated characters (63.8% and 58.4% respectively, of parents agreed to this).

Parents were asked if they believed food advertisements improved their children's knowledge about a healthy nutrition. Majority (61.1%) agreed, meaning they perceived by exposure to these advertised foods, their children get to learn about a healthy nutrition. That could be the reason about 73.8% of them also agreed that it was desirable to use animated characters to promote healthy foods. This however contradicts the evidence which shows that advertisements of such processed energy-dense foods actually decrease nutritional knowledge of children (Reisch et al., 2013). Advertisements of such foods tend to override information obtained from other places that teach on healthy foods and choices (Reisch et al., 2013). This suggests that by frequent exposure to advertisement of such foods, children would most likely develop poor eating habits (such as preference for snacks and junk foods over fruits and vegetables) (Boyland & Halford, 2013). In this study however, only 43% of interviewed parents agreed to the fact that advertisements were the cause of unhealthy food habits. It could be that the children were actually enjoying such foods, unknown to their parents or that the parents simply did not attribute such desires to advertisement.

Several researchers have found that in making requests, children sometimes pester their parents for such advertised foods (Berg, 2010; Reisch et al., 2013; Kraak & Story, 2015). In this study, 56.4 % of the parents interviewed also agreed that children pestered them for particular foods solely because they had been exposed to such foods. Beyond the pestering, 31.5% of respondents believed that advertisements of

such foods actually led to food-related family conflicts. If parents believe exposure to advertisement can cause conflicts, it explains why approximately 80% of respondents also agreed that advertising of such foods should be prohibited.

Parents were made to answer on which ways they themselves were influenced when making purchases of advertised foods for themselves or their families. A majority of them (107 out of 149) reported they purchased those items based on the perceived nutritional benefits. This result can be explained by the study which sought to look at how parents themselves were targeted at by food advertisers. In reaching out to parents, advertisers often appealed to their emotions, in addition to portraying the nutritional benefits of the products (Emond et al., 2015). It was only 23 of them who reported that they were not influenced by advertisements when making food purchases.

5.3 Influence of food marketing to children on their request patterns and eating preferences

Hundred and seven (out of 149) parents believed children made requests for particular foods at least once a week, as a result of exposure to marketing of such foods. This shows that children's request patterns for food might be largely shaped by advertisement. This is consistent with findings by different researchers who sought to find out the influence of advertisements on request patterns. Their studies show that advertisements influence the request patterns of children (Berg, 2010; Reisch et al., 2013; Kraak & Story, 2015).

Over half the interviewed parents (55.03%) believed there had been a change in the eating preferences of their children as a result of exposure to advertisements. Advertisement is known to cause changes in food preferences of children and it's therefore no surprise that majority of the parents attested to that (Berg, 2010; Harris & Graff, 2011; Scully et al., 2012; Kelly et al., 2015). This study sought to investigate the influence of food marketing to children on the change in their eating preferences. The chi-square analysis performed reveals that the variables that are significantly associated with changes in eating preferences are exposure to advertisements on billboards, the use of famous people in advertisements, frequency of requests for foods exposed to by marketing, fat content of advertised foods, whether food advertisement was the reason children pestered their parents for advertised foods, and whether food advertisement was the cause of family conflicts. When these variables were fit into a logistic model, and other variables controlled for, the variables which remained significant were the use of famous people in advertisements, whether advertisement was the reason children pestered their children for advertised foods and whether food advertisement was the cause of family conflicts.

The logistic model shows that parents who strongly agreed to the assertion that the use of famous people influenced the food choices of their children were more likely to report a change in eating preferences of their children, relative to those who strongly disagreed. The odds ratio of 14.667 ($p<0.05$) shows that these parents who strongly agree, have approximately 15 times the odds of saying their children's eating preferences had changed, when compared to those who disagree. This finding has given strength to the well-known relationship existing between use of famous people

and celebrities and the influence it has on eating preferences of children (Lobstein, 2013).

The model also shows there is a strong statistical association ($p=0.005$) between pestering of parents by children for advertised foods and the changes in their eating preferences. This association holds true for the variable as a composite, but when the different range of views of parents (from whether they strongly disagreed to whether they strongly agreed) were fit into the model, none gave a significant level of association ($p>0.005$) with changes in eating preferences. This shows that indeed there is an association between pestering for foods based on exposure to advertisements and changes in eating preferences, irrespective of the kind of responses parents gave.

Parents who agree that food advertisement is a cause of family conflicts relating to food have 6.6 times the odds of agreeing that their children's eating preferences had changed due to food advertisements, relative to those who strongly disagree. This means such parents are more likely to report of changes in food preferences of their children, about 6.6 times that of those who strongly disagree, anytime there was a family conflict related to food choices.

All other variables are not significantly associated with the outcome, statistically, and were not fit into the logistic model.

5.4 Statutory and legal framework for marketing of foods to children in Ghana

The World Health Organization, in 2010, developed a set of recommendations for marketing of foods and non-alcoholic beverages to children (WHO, 2010). One major recommendation was for member states to develop appropriate policy mechanisms which should aim at reducing the impact of food marketing to children. The document review performed shows that contrary to the WHO recommendations, no policies exist that deal specifically with reducing the impact of food marketing to children. The guidelines that exist, touch on food marketing generally, or on advertisements of alcoholic beverages to children; completely silent on advertisements of non-alcoholic beverages to children. The reduction of the impact of food marketing, according to the WHO, could be achieved by reducing exposure to the forms of marketing as well as to the content of marketing. The documents and policies reviewed were silent about any such aim of reducing exposure to the forms of marketing or the contents of marketing. According to the WHO, settings where children gather, such as schools, playgrounds, recreational centres, clinics should be free from all forms of marketing of processed energy-dense foods. The search for any such policy on food marketing to children in schools or a similar environment where children gather was absent. It is either the policies do not exist or the search was not extensive enough. However, the FDA guidelines stipulate that advertisement of alcoholic beverages should be restricted from such areas where children gather and this is the closest to any policy information, available to the principal investigator, on regulation of advertisements in environments where children are likely to gather. According to the WHO, governments should be the major stakeholders in developing

policy, assigning such roles as it deemed fit to other stakeholders. This is akin to what the expert on child welfare mentioned in her interview, stating that it was solely the responsibility of government to ensure regulation.

It is obvious from the interview and document review that the existing statutory, policy and legal framework does not address the regulation of food marketing to children in Ghana.

5.4 Limitations of the study

This study was conducted among parents to see their perceptions of food marketing to children. The information is obtained purely based on parents' views, which might not necessarily be what their children are exposed to. The likely influence of socio-economic status of parents on exposure of children to marketing is not explored.

Only one key informant interview was done due to insufficient time. Interviewing many more would have provided a broader perspective to the information obtained via quantitative means.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The study revealed that the technique of food marketing children were exposed to the most was through the television. The least commonly used technique was via online. Other techniques include billboards, school signposts and product-branded books and toys.

Parents were aware that their children were exposed to food marketing. About 55% of them actually believed their children's eating preferences had changed as a result of food marketing. The study found that about 72% of children made requests for certain foods based on exposure to marketing of these foods.

The document review showed that currently, none of the policies or regulations which address food marketing in Ghana addresses the marketing of food to children specifically. There is currently no document in Ghana which addresses food marketing to children in schools or other environments where children are likely to be found.

6.2 Recommendations

Based on the findings from the study, the recommendations proposed are:

1. Laws and policies that provide guidance on food marketing, via all techniques, to children in Ghana, should be enacted by the government of Ghana.

2. The Ghana Education Service should enact a policy to restrict marketing of processed energy-dense foods to children in schools in Ghana.
3. Further research should be carried out, which would explore other aspects of regulation, such as voluntary regulation by the advertising and food industries.

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APPENDICES

Appendix A- Participant Consent Form – Parents of Children
Project Topic - Marketing of Foods and Non-alcoholic Beverages to Children in Ghana

Background

Dear Participant, I wish to invite you to participate in an academic research involving parents of children in Ghana. My name is Edinam Kwaku Amegashie, a student of the School of Public Health, University of Ghana. I am undertaking a study on the topic Marketing of Foods and Non-alcoholic Beverages to Children in Ghana.

The objective of this study is to find out the different approaches used to market foods to children in Ghana, what parents perceive of these different approaches and the regulatory framework that exists to monitor such marketing approaches. This is to help direct policies on food marketing in Ghana. It will also help key industry players streamline their activities to achieve healthy outcomes. This research will form part of my work for the award of a Masters' degree in Public Health.

Procedures

The study seeks to interview parents of children in Ghana, interview key informants in industry and the regulatory sectors and review existing documents on food marketing in Ghana. A questionnaire will be administered and you would be required to fill it.

Risks and Benefits

The information you provide will help me understand the perceptions of parents on marketing of foods to children in Ghana. This information, I believe, will benefit you in the long run as it will kindle the interest of policy makers to pay more attention to different approaches of marketing of foods to children in Ghana. Your participation in this study will only take 15 minutes of your time. Be assured that the information you will provide will be treated with the uttermost confidentiality and anonymity. **There is no compensation attached.**

Right to refuse
Participation in this study is voluntary and you can choose not to partake. You are at liberty to withdraw from the study at any time. However, I will encourage your full participation since your participation is important.

Client's Consent

I, ……, declare that the purpose, procedures as well as risks and benefits of the study have been thoroughly explained to me and I have understood them. I hereby agree to take part in this study.

Signature of participant / thumbprint……

Date……. / …… / ……..

Interviewer's Statement

I, the undersigned, have explained this consent form to the subject in simple language that she/he understands, clarified the purpose of the study, procedures to be followed as well as the risks and benefits involved. The subject has freely agreed to participate in the study.

Signature of interviewer……

Date ……. / …….. / ……

Address

Edinam Kwaku Amegashie

P. O. Box GP 18702,

Accra.

In case of any concern you can contact the following:

Hannah Frimpong

GHS-ERC Administrator

0243235225 / 0507041223

Email : Hannah.Frimpong@ghsmail.org

Appendix B - Participant Consent Form – Key Informant

Project Topic - Marketing of Foods and Non-alcoholic Beverages to Children in Ghana

Background

Dear Participant, I wish to invite you to participate in an academic research involving parents of children in Ghana. My name is Edinam Kwaku Amegashie, a student of the School of Public Health, University of Ghana. I am undertaking a study on the topic Marketing of Foods and Non-alcoholic Beverages to Children in Ghana.

The objective of this study is to find out the different approaches used to market foods to children in Ghana, what parents perceive of these different approaches and the regulatory framework that exists to monitor such marketing approaches. This is to help direct policies on food marketing in Ghana. It will also help key industry players streamline their activities to achieve healthy outcomes. This research will form part of my work for the award of a Masters' degree in Public Health.

Procedures

The study seeks to interview parents of children in Ghana, interview key informants in industry and the regulatory sectors and review existing documents on food marketing in Ghana. I will engage you in an interview so you provide me with key answers to a few questions. **I would also record this interview on an audio tape, just for the purposes of transcribing the information. It will not be used anywhere, against you or otherwise, for anything.**

Risks and Benefits

The information you provide will help me understand the regulatory framework with regards to marketing of foods to children in Ghana. This information, I believe, will benefit you in the long run as it will kindle the interest of policy makers to pay more attention to different approaches of marketing of foods to children in Ghana. Your participation in this study will take an hour. Be assured that the information you will provide will be treated with the uttermost confidentiality and anonymity.

Right to refuse

Participation in this study is voluntary and you can choose not to partake. You are at liberty to withdraw from the study at any time. However, I will encourage your full participation since your participation is important.

Client's Consent

I, ……, declare that the purpose, procedures as well as risks and benefits of the study have been thoroughly explained to me and I have understood them. I hereby agree to take part in this study.

Signature of participant / thumbprint……

Date……. / …… / ……..

Interviewer's Statement

I, the undersigned, have explained this consent form to the subject in simple language that she/he understands, clarified the purpose of the study, procedures to be followed as well as the risks and benefits involved. The subject has freely agreed to participate in the study.

Signature of interviewer……

Date ……. / …….. / ……

Address

Edinam Kwaku Amegashie

P. O. Box GP 18702,

Accra.

In case of any concern you can contact the following:

Hannah Frimpong

GHS-ERC Administrator

0243235225 / 0507041223

Email : Hannah.Frimpong@ghsmail.org

Appendix C - Questionnaire to parents

SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF GHANA
DEPARTMENT OF POPULATION, FAMILY & REPRODUCTIVE HEALTH
A STUDY TO DESCRIBE THE MARKETING OF FOODS AND NON-ALCOHOLIC BEVERAGES TO CHILDREN IN GHANA

Date (dd/mm/yy): DATE __ __/__ __/__ __

A. BACKGROUND INFORMATION

1. Are you a. Male or b. Female?
2. What is your current marital status?
a. Single b. Married c. Separated d. Divorced e. Widow/Widower
3. What was the age of your ward/child at his/her last birthday? …….
4. Who is the child to you?
a. Son b. Daughter c. Nephew d. Niece e. Grandson f. Granddaughter
g. Other (specify)…….....
5. What class is your ward/child in? ……

B. SOCIODEMOGRAPHIC INFORMATION

6. What is the highest educational level of the child's mother/female guardian?
a. Primary/Elementary b. Secondary c. Tertiary d. Other (specify)……
7. What is the highest educational level of the child's father/male guardian?
a. Primary/Elementary b. Secondary c. Tertiary d. Other (specify)…….
8. What is the current occupation of the child's mother/female guardian?
a. Artisan (Carpenter, hairdresser, seamstress etc.) b. Trader
c. Professional (Teacher, lawyer, accountant) d. Office worker
e. Not employed f. Retired g. Other (specify)…….
9. What is the current occupation of the child's father/male guardian?
a. Artisan (Carpenter, hairdresser, seamstress etc.) b. Trader
c. Professional (Teacher, lawyer, accountant) d. Office worker
e. Not employed f. Retired g. Other (specify)……..
10. What is the name of the community where you live? ……

C. MARKETING APPROACHES

11. How often do you watch television during the week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
12. How often does your ward/child watch television during the week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
13. How often do you listen to the radio during the week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
14. How often do you use the internet during the week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know

15. How often does your ward/child use the internet during the week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
16. In the last week, is your child likely to have been exposed to adverts on food and non-alcoholic beverages on television?
a. Yes b. No
17. How often was your child exposed to food adverts on television during the past week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
18. In the last week, was your child likely to have been exposed to adverts about food and non-alcoholic beverages from online sources (eg website, phone app, etc)?
a. Yes b. No
19. How often was your child exposed to food adverts from online sources during the past week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
20. To what extent is you child/ward exposed to food-product-branded toys and/or books?
a. Never b. Occasionally c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday f. I do not know
21. In the last week, is your child likely to have been exposed to adverts on food and non-alcoholic beverages on billboards?
a. Yes b. No
22. How often does your child ask you to purchase food that is advertised on television/bill boards, in the newspapers, or other printed material in a week?
a. Never b. Occasionally (1-2 times) c. Sometimes (3-4 times) d. Often (5-6 times)
e. Everyday
23. In the last week, is your child likely to have been exposed to adverts on food and non-alcoholic beverages on school signposts?
a. Yes b. No

D. PERCEPTIONS ABOUT MARKETING – for each of the following questions answer to what extent you agree

24. Famous people endorsing food products influence my child's food choice.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
25. The food that is advertised (on television/online, billboards) to children contains too much sugar.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
26. The food that is advertised (on television/online, billboards) to children contains too much fat
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
27. The food that is advertised (on television/online, billboards, etc) to children contains too many additives.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree

28. The food that is advertised (on television/online, billboards, etc) to children improves children's knowledge about a healthy diet.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
29. The food that is advertised (on television/online, billboards) that targets children is the reason my ward/child request me to purchase such food.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
30. The food that is advertised (on television/online, billboards) causes conflicts in relation to food choice in my home.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree f. cannot tell/remember
31. The food that is advertised (on television/online, billboards) creates unhealthy food habits in children.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
32. Advertising of all unhealthy foods should be prohibited.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
33. When advertising foods with a high content of sugar, animated characters and famous personalities should not be used
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
34. When advertising foods with a high content of fat, animated characters and famous personalities should not be used
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
34. It is desirable to use animated characters and famous personalities to promote healthy foods
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree
35. Have you observed any change in your child's eating preferences as a result of advertisements?
a. Yes b. No
36. In what ways are you influenced by food/beverage advertisement when buying food for yourself or your family?
a. I'm not influenced
b. Based on the nutritional benefits of the food
c. When the company is famous for products
d. Based on branding and attractive packaging
Thank you very much for your time

Appendix D - Interview Guide

INTERVIEW GUIDE FOR KEY INFORMANT INTERVIEWS

Before the interview starts, provide a brief background of what is meant by unhealthy marketing of food to children

- In what ways are foods marketed to children that you consider problematic?
- What policies/regulations exist to protect children against unhealthy marketing of food to children?
- Which institutions should address unhealthy marketing of food to children?

Appendix D – Ethical Clearance Letter

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com

MyRef. GHS/RDD/ERC/Admin/App/4912
Your Ref. No.

Amegashie Edinam Kwaku
University of Ghana
School of Public Health
Legon, Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	**GHS-ERC: 15/02/17**
Project Title	Marketing of Foods and Non-Alcoholic Beverages to Children in the Ga West District of the Greater Accra Region of Ghana
Approval Date	15th May, 2017
Expiry Date	14th May, 2018
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report **after completion** of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra