

Title

**THE INFLUENCE OF ADVERTISEMENT ON THE INTAKE OF FAT AND OIL. THE
CASE STUDY OF KWASO RURAL DEVELOPMENT COLLEGE.**

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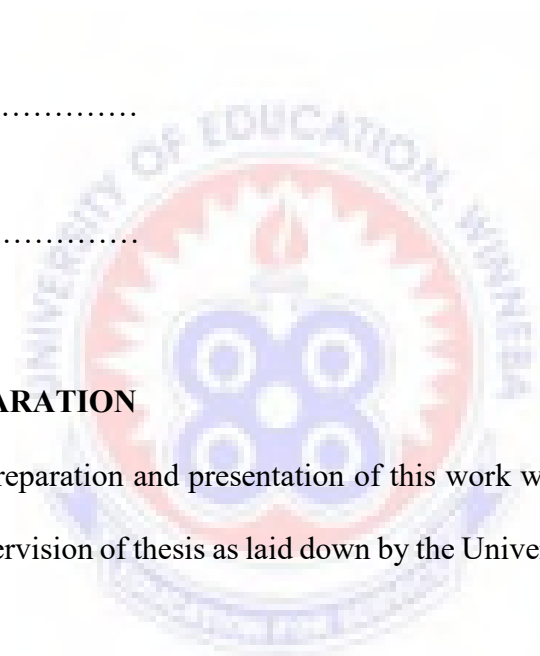
DECLARATION.

STUDENT'S DECLARATION.

I Oppong Nyantakyiwaa Regina declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledge, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

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SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

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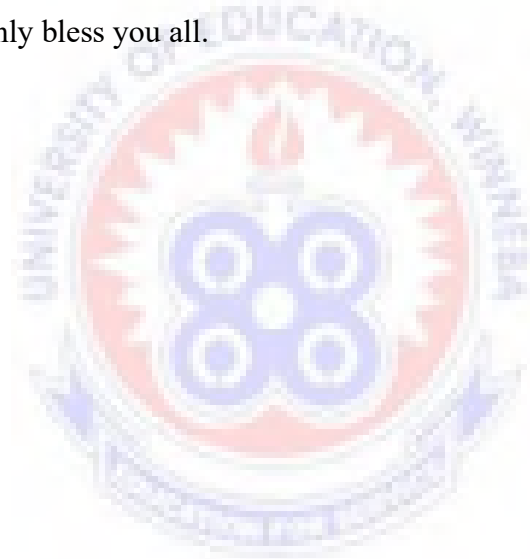
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May the Almighty God richly bless you all.



DEDICATION.

I dedicate this work to my Friend Mr. Tabi Jones, the man who stood by me and offered me his sincere Love, advice and encouragement. I also dedicate this work to Mr. Atta Gyamfi (General

Manager of Asante Akyem Rural Bank Ltd. Finally, I dedicate this work to my children, Jaydin and Jesseamine Kusi, my parents Diana and Thomas Edusei and Daniel Anarfi Yamoah, my supervising manager.



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ABSTRACT.

It is generally believed that advertisement on the mass media influences people's choice and intake of fats and oils. With the food fashion in Ghana shifting to other continental dishes like fried rice, pizza bug gars and others, there is the higher possibility of people increasing their intake in fats and oils. This study therefore sought to investigate the views of students towards fat and oil

advertisement, students' knowledge on health implications of fat and oil consumption, examine the frequency of fat consumption by students, and make recommendations on fat and oil consumption on the findings. This study employed descriptive research design. The population of this study were students and teachers of Kwaso Rural Development College. A sample size of 50 students and two teachers were used. Convenience sampling technique (a non-probability sample approach) was used. Questionnaire was used to survey the students whilst the two teachers were interviewed. Data was analysed using quantitative techniques like mean, standard deviation, percentages, standard error of mean, and others. Qualitative data analysis techniques like logical deduction and induction, and content analysis were also used. It was discovered that on average each respondent is exposed to fats and oils advertisement for at least three times per week. The study also revealed that television is the topmost sources of fats and oils advertisement for both Tutors and students. The study found out that, vegetable and animal fats and oil sources are the most advertised sources of fats and oil. The study discovered that the effect of fats and oil advertisement on students' fats and oil choices is moderately strong whilst it is very strong on tutors' fats and oil consumption. Some of the recommendations made are: The government should regulate the activities of advertisers. Students should shield themselves from excessive exposure to fats and oils advertisement. Students should reduce the intake of fats and oil and embark on regular body exercise to burn fats and oil.

CHAPTER ONE

INTRODUCTION.

Background to the study

Food is very essential for every living organism especially human beings. It contains chemicals substances called nutrients that facilitate proper growth and functioning human beings. Among these are proteins, carbohydrates, fats and oils, vitamins, mineral, salt and water. Nutrients perform varying functions in the body if they are taken in the correct amount. It is therefore prudent; however, to note that excess intake of these nutrients have a negative health implication of the body.

Fats and oils perform the functions of providing or supplying a basic continuing source of fuel for the body to store and burn in the form of energy. In non-adult human beings, the recommended fat intake is between 20-30% of energy and 300 milligrams of cholesterol per day (William and Ward law, 1999).

Fats and oils have had a negative effect on human health for several years because of its association with a number of health problems especially heart problem. The actual problem is not the mere consumption of fats and oils but rather, it is the excess fat that is consumed. Usually, this is as a result of the imbalance between fat intake and energy output. Heart disease which is usually called coronary heart disease of the major disease cardio-vascular disease is associated with excess intake of fat. Other related diseases are obesity, hypertension, cancer etc. lipids have held a prominent place in most Ghanaian diet. However, different societies differ with respect to how much fat they consumer and which source of fat is mostly used in preparing soups.

Research available indicates that the level of fat intake of developed countries is for higher than in developing countries (Ward law, 2000). In the United States of America (USA), fat related diseases are rated the first higher killer disease (William, 1994).

Advertisement, both on electronic like television and print media like newspapers have contributed greatly on the intake of fats and oils in many Ghanaian societies. There are several brands of fats and oils on markets and therefore there are numerous advertisements in the Ghanaian mass media which in one way or the other influence or persuade people decision in buying fats and oils. These advertisements which mostly rely on human appeals like comfort, convenience, curiosity and egotism influence people's choice of product (Burton, 1999). Advertisements mostly rely on appeals that are difficult and sometimes impossible for consumers to resist. Students of Kwaso Rural Development College in the Ejisu-Juaben Municipality, with access to various media, are exposed to various types of advertisement of fat and fat rich foods which are likely to influence their choice of food habit in terms of fat and oil consumption.

Statement of the Problem

It is generally believed that advertisement on the mass media influences people's choice and intake of fats and oils. Research conducted at the Kwaso Rural Development College students revealed that their diets are mostly prepared around fat-rich foods which are traditionally eaten in Ghana or in foreign countries. Foods consumed by students of Kwaso Rural Development College are made up of sauces which oils are used as a based, margarine, pastries, chicken, cheese, eggs and others.

With the food fashion in Ghana shifting to other continental dishes like fried rice, pizza bug gars and others, there is the higher possibility of people increasing their intake in fats and oils. As a rider to the above, the activities of Kwaso Rural Development College students which are predominantly academic in nature requires comparatively low energy output. Even though most fact-related diseases such as hypertension, diabetes, obesity, and other cardio vascular diseases occurred from middle age, it will of great help if diet control start at an early age to regulate the

intake to commensurate with energy output. The work therefore is to find out whether students intake of fats and oils are being influenced by increasing advertisement on fats and oils in the media.

Purpose of the Study

The purpose of the study is to find out the extent to which advertisement influence the intake of fat and oil by students of Kwaso Rural Development College.

Objectives of the Study

The main objective of the study is to:

- Find out the background characteristics of the students.
- Investigate the views of students towards fat and oil advertisement.
- Identity the students' knowledge on health implications of fat and oil consumption.
- Examine the frequency of fat consumption by students.
- Make recommendations on fat and oil consumption on the findings.

Significance of the Study

The study is important in many ways. If the recommendations are adopted in the first place, it will be useful in reducing the prevalence rate of coronary heart disease and other fat-related illness, as it will increase people's awareness of these diseases. Also the study will be useful to Ghana Health Service and the Ministry of Health together with other stakeholders such as health practioners in

the health sector in formulating policies on diseases related to quest to formulate and control the hitherto rampant increase in the advertisement of fat and oil.

Scope of Study

Kwaso Rural Development College is within the Ejisu-Juaben Municipality and has a student population of 120.

Delimitation

The study is delimited to students of Kwaso Rural Development College due to time constrains and lack of funds. Also, it would have been appropriate to use interview in order to acquire more reliable information concerning the study. However as a result of time factor study will be limited to the use of questionnaire in collectively.

Limitation

The study has several limitations. There will be difficulty in generalizing findings to all institutions in the country as a result of the small sample size. There will be difficulty in getting students to respond to the items. Time and funds are also possible limitations.

Organization of Chapters

The study is organized into five chapters; chapter one deals with the background of the study, the objectives of the study, the statement of the problem, the purpose of the study, the significance of the study, the organization of the chapters, the limitations and delimitation of the study. Chapter two deals with the reviewing of related literature that are relevant to the study. In chapter three the

methodology used in conducting the research will be discussed write in chapter four, the focus would be on the findings of the study and analysis as well as the discussion of the findings. In the fifth chapter recommendation and suggestions will be given to provide suggested solution to the problem based on the findings of the study. It also contains summary and conclusion.



CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This particular chapter discusses review of related literature on advertisement, nutrients (emphasis on fats and oils), and the influence of advertisement on consumers behavior towards a product. Health effects of fats on the health of people as well as health problems related to excessive fats and oils consumption would be discuss under this chapter.

2.2. Definition of Advertisement

Oxford Advanced Learner's Dictionary (International Student's Edition) defines advertisement as a notice, picture or film telling people about a product, job or service. It goes on to say that it is the act of advertising something and making it public.

Berkowitz (2000), defined advertisement as any paid form of non personal communication about an organization, goods, services or idea by an identified sponsor. Advertising is the business of announcing that something is for sale or of trying to persuade customers to buy a product or service (Ivanovic and Collin, 2003). The American Marketing Association also defines advertising as 'the placement of announcements and persuasive messages in time or space purchased in any of the mass media by business firms, nonprofit organizations, government agencies, and individuals who seek to inform and/ or persuade members of a particular target market or audience about their products, services, organizations, or ideas'. Advertising can reach geographically dispersed buyers efficiently (Kotler, 2002). It is to develop all concepts and write copy for ongoing image advertising. Successful in increasing awareness, as reported by the sales team (Kursmark, 2005). Virtually any medium can be used for advertising (Durmaz, 2011). He continued that commercial

advertising media can include wall paintings, billboards, street furniture components, printed flyers and rack cards, radio, cinema and television adverts, web banners, mobile telephone screens, shopping carts, web popups, skywriting, bus stop benches, human billboards, magazines, newspapers, town criers, sides of buses, banners attached to or sides of airplanes ("logo jets"), in-flight advertisements on seatback tray tables or overhead storage bins, taxicab doors, roof mounts and passenger screens, musical stage shows, subway platforms and trains, elastic bands on disposable diapers, doors of bathroom stalls, stickers on apples in supermarkets, shopping cart handles (grabertising), the opening section of streaming audio and video, posters, and the backs of event tickets and supermarket receipts. Any place an "identified" sponsor pays to deliver their message through a medium is advertising (Durmaz, 2011).

Nickel (1996), also refers to advertisement as a paid non-personal communication through various media by organization and individual who are in some way identified in the advertising message. Boateng (1995), indicated that advertisement consists of non personal forms of communication conducted through paid media under clear sponsorship. Advertising differs from other mass communication systems by virtue of the fact that it is "paid" for while say publicity does not attract any charges to the firm. Boateng goes on to emphasized that advertising decisions must answer what has come to be referred to as the '5'Ms. These are the Mission, Money, Message, Media and Measurement. The ultimate goal of advertising is to increase the demand for the product or service: to shift the demand curve upwards.

Schrank (1975), revealed that by the time a person is 60 years old, he will have seen and heard approximately fifty-million advertising message! Most will be ignored, some will prove helpful and honest, but others will mislead. Advertising can be either constructive or harmful. It can help

consumers discover new products they want or it can tell where to buy something at the lowest possible price. However, it can also mislead people into buying things they don't want or thinking a particular brand or product is better than it is reality. To make advertising serve rather than mislead you, there two important skills to learn. The first is the ability to determine exactly what facts are presented in an advertisement. The second is the ability to recognize how the advertisement is trying to make the product appealing.

2.2. Types of Advertisement

Berkowitz(2002), identified two forms of advertisement. These are product and institutional advertisement.

(a) Product Advertisement: This focuses on selling or service. It can take three forms and these are informational, persuasive and reminder advertisement. Informative advertisement according to Berkowitz (2000) indicated what a product is, what it can do and where it can be found. Persuasive advertisement promotes a particular brand features and benefits. The objective is to persuade the target market to select the brand rather than that of competitions. Reminder advertisement is used to reinforce previous knowledge about the product.

(b) Institutional Advertisement: This is aimed at building at building good will or image for the organization rather than promoting specific goods or services.

Four forms of institutional advertisement are used

- (i). Advocacy Advertisement states the position of an organization or an issue.
- (ii). Pioneer institutional advertisement is used for announcement about what a company is, what it can do and where it is located.

(iii). Competitive institutional advertisement is used where different product classes compete for the same buyers.

(iv). Reminder institutional advertisement is to bring the company's name to the attention of the buyers.

2.3 Advantages of Advertisement

- It informs public of the product. For instance, gives features, price and availability.
- It directs customers to where to locate product.
- It provides instructions for use of a product.
- It gives nutritional information. Example, fats and oils, protein, vitamin and others.
- It attracts a large audience
- The cost per viewers / listeners is low.
- A large number of alternative media are available
- In print media the message can be studied and restudied.

2.4 Disadvantages of Advertisement

In spite of the above advantages of advertisement, it has the following disadvantages.

- (i) It increases sales cost leading to higher prices.
- (ii) It can mislead consumers and persuade them to make unwise purchases.
- (iii) Some advertising makes claims which may not be accurate
- (iv) Advertising can provoke impulse buying.

2.5 Medium of Advertisement

There are a number of media for use by advertisers in their communication process and each has characteristics which present advantages and disadvantages to the user. One needs to understand for any advertising programmer.

2.5.1 Television

Television is an audio visual medium through is made Advertiser make use of this medium to market their products.

Advantages

- (i) It affords the option to choose the right time for adverts to reach the target audience most effectively
- (ii) It is very cost-effective to the extent that it enables the message reach the greatest number of viewers with each exposure.
- (iii) In places where local stations are available or alternative channels prevail, it enables geographical choice.
- (iv) Standard of television commercials are also noted to be high exhibiting the creativity of the advertising agents.

Disadvantages

- (I) Television is the most expensive media for advertising in absolute terms.
- (ii) It lacks the refer back facility which newspaper adverts offer.

(iii) Viewers may decide to switch off or switch to new channels if they feel bored with an advert on the television or on particular channel.

2.5.2 Radio

This is an audio medium of communication by which advertisements take place. The growth in the radio industry has brought with it new communication channels for advertising.

Advantages

- (i) Can reach the travelling public in case where radios are installed in vehicle and obtain captive market.
- (ii) Relatively low cost medium for adverts
- (iii) Timing can be selected to enable the reach to a target audience.

Disadvantages

- (i) "Noise" which distracts any communication process can be high in case of radio
- (ii) People are known to listen to radio for leisure. They may be doing something else while the radio is on. Messages may be heard in passing and as there is no refer back facility the advert may be lost.

2.5.3 Print media

Newspaper and magazine businesses are on the increase in the country. The local ones as well as those with national coverage. This development offers a wide choice of type of paper and area of coverage.

Advantages

- The printed words carries much detailed and can be read repeatedly, refer back facility is also available.
- It plays the role of a useful back-up facility to television commercials.
- It is a relatively economic way of getting complex messages across the large number of people.

Disadvantages

- The print medium is static and lacked the impact of a moving advert as shown on television.
- Where the newspaper or magazine is not colour base, the advert may lose the required impact.

2.5.4 Outdoor media

Outdoor media include bill board, hoarding, bus shelter and electric or neon signs.

Advantages

- They are usually visible due to the size and the location.
- Neon and Electricity sign carry the impact of motion and can also be seen even in darkness
- They relatively cheap form of mass communication which also act as a reminder or reinforce to other adverts.

Disadvantage

- It provides limited scope for creativity
- They may not be visible in darkness
- The best poster sites may obstruct traffic and therefore may not be available for hoisting the poster.

2.6 Effects of Advertisement on consumers

Advertisement can inform consumers or appeal of their emotions or their needs. It directs and states the fact that gives the basis for decision making. It also gives nutritional information to consumers. It can also mislead consumers and persuade them to make unwise purchases. Some advertisements make claims which may not be true. They even put people in buying items they have not budgeted for and cannot afford.

Food advertising has long been proposed as a candidate for the association between body fat (adiposity) and television viewing (de Cruz, et.al, 2004). Powell, et.al (2007) added that a research by Institute of Medicine in U.S concluded that there is strong evidence for children aged 2–11 that television advertising influenced short-term food consumption patterns (such as fats and oils) and moderate evidence that it influenced usual dietary intake, but there was insufficient corresponding evidence for teens aged 12–18. With respect to health, the report concluded that there was strong evidence for both children aged 2–11 and adolescents aged 12–18 that exposure to television advertising was significantly associated with adiposity (Powell, et.al, 2007). Arcan, et.al (2013) agree and added that more than any other foods/beverages, children are exposed to marketing messages for unhealthy foods, such as sugary breakfast cereals, fast food restaurants and snack foods such as chips, desserts, candy, sugar-sweetened beverages, and yogurt (all rich in fats).

Exposure to unhealthy foods such through TV marketing has been linked to increased preferences for marketed foods such as fats and oils. Since most of children's food preferences are formed during early childhood, children are at risk for forming life-long preferences for foods laden in calories, fat, and added sugars and, thus, are also at increased risk for obesity due to TV food marketing practices (Arcan, et.al, 2013). They continued that elementary school-aged children who saw unhealthy food advertising while watching a children's cartoon program consumed 45% more snacks than the group of children who watched the program with non-food advertising. Conversely, children's attitudes and beliefs toward healthy foods were positively impacted by advertisements of healthy foods, but these positive effects were reduced when advertisements of unhealthy foods were shown alongside healthy foods (Arcan, et.al, 2013).

Research among adults confirms that external cues have a significant influence on food consumption behaviors. Exposure to the sensory properties of palatable food increased subjective desire and consumption, even though participants were already fully sated (Cornell, Rodin, and Weingarten, 1989). Subsequent studies confirmed and extended this finding, showing that exposure to sensory-related food cues increases consumption (Federoff, Polivy, and Herman, 1997). Moreover, food advertising typically focuses on the immediate sensory gratifications of consumption (i.e., the "hot," appetitive features), making resistance to these messages even more difficult (i.e., the "cold," rational process of self-restraint; Metcalfe and Mischel, 1999). In light of these findings, Lowe and Butryn (2007) proposed that palatable food stimuli can trigger *hedonic hunger*, or "thoughts, feelings and urges about food in the absence of energy deficits".

Harris, et.al (2009) research confirmed the effect of food advertisement on consumption including fats and oils. According to their research children consumed 45% more when exposed to food advertising. Adults consumed more of both healthy and unhealthy snack foods following exposure to snack food advertising compared to the other conditions. In both experiments, food advertising increased consumption of products not in the presented advertisements, and these effects were not related to reported hunger or other conscious influences (Harris, et.al, 2009).

However, it is not everybody who believes in the causal relationship between food advertisement and consumption such as fats and oils. De Cruz, et.al (2004) stated that the advertising industry continues to claim that advertising is an “innocuous” part of daily life and that watching advertisements cannot make you fat. But the affirmation is simplistic. Experimentally, it remains very difficult to measure the direct impact of advertising as it is impossible to eliminate all other possible variables. However, the escalating investment into food advertising aimed at children demonstrates just how much effect they have and are hoping to have on consumer behaviour (de Cruz, et.al, 2004).

2.7 Major categories of Advertising

- (i) Hawking – advertising products by people on the street.
- (ii) Radio and Television – advertising product on radio and television programmes.
- (Iii) Product advertising- advertising for goods or service to the interest among consumers.
- (iv) Bill boards advertising- advertising on bill boards on streets and roadsides.
 - Newspaper advertising

- On-line Advertising- advertising message that is available by computers when consumers want to receive them.

2.8 Effects of Advertisement on the choice of fats and oils.

There are different kinds of advertisement on fats and oils in the Ghanaian media which have the potential of influencing the fat consumption of viewers and listeners of such advertisement, of which students are no exception. Prominent among these advertisement are the advertisement of margarine, vegetable oil and palm oil. The advertisement of oils like frytol, vego, palm oil, margarine, olive oil and others are commonly advertised on Television, Radio, billboards, Newspaper and other mass media. The advertisement of these products greatly affects consumer's decision in choosing fats and oils in market. There is however, no available literature supporting or disputing these arguments especially in the Ghanaian perspective. The sequel is the choice of a wrong product or consumers being mislead. But it is widely believed that, since the advertisers keep on advertising the products, there is the like hood that the advertisements are influencing the consumption public to increase their fat intake.

2.9 Consumers Behavior

Consumers are influenced by many factors in deciding on what product to buy and from which source. Boateng (1995), identified some of the factors influencing consumer's behavior in purchasing a product. These include social, cultural and psychological factors.

2.9.1 Social Factors

(i) Family: An individual is born into a house and the first point of contact is the family starting with the parents and siblings. A family may decide to purchase a particular product. The importance of that he must be able to determine what the influence is and how he can persuade the consumer to switch over to buy what he or she offering.

(ii) Roles and Status: Each role played by individuals in society carries with it a status which reflects the regard according to it. Consumers make a choice of products and services to reflect their role and status in the community.

2.9.2 Cultural Factors

(i) Cultural: it represents a group's interest. A child born into any society is influenced by the society's norm. a typical Ashanti man likes fufu while a Ga man prefers Kenkey.

(ii) Social class: this refers to stratification in societies (mostly upper, middle and lower class. The social class to which an individual belongs tends to share similar values while different social classes tend to have different attitudes and values that are reflected in their choice of a product.

2.9.3 Psychological Factors

The first of factors from within that influence the individuals buying behavior are psychological factors which include motivation, perception, learning effect of past experience and beliefs and attitude.

2.10. Nutrients

Mifflin (1988) defined nutrition as the process by which the body takes in and uses food. Foods that promote food nutrition contain nutrients. Nutrients are substances found within foods that the body needs to work properly. There are six types of nutrients, according to Mifflin (1988), carbohydrates, protein, fats, vitamins, minerals and water. Together they supply energy, regulate body functions, promote body growth, and repair body tissues.

2.10.1 Lipids (fats and oils)

Mifflin (1988) indicated that nutrients that contain the most concentrated forms of energy are fats. One ounce of fats provides more than twice as much energy as an ounce of carbohydrate. Fats are chemical substances that are similar to carbohydrate but contain less oxygen.

Fahey, Insel, and Roth (2007) explained that fat, also known as lipids are the most calories per gram. The fat stored in your body represents usable energy, help insulate your body, and support and cushion your organs

Dupuy and Mermel (1995) defined lipid as a nutrient class more commonly known as oil if liquid and fat if solid. They are relatively insoluble in water. Lipids contained in dietary fats and oil as well as those found in human body can be divided into three categories based on their chemical structure. Majority of lipids (more than 95%) in our diet are in form of triglyceside. Smaller amount are in the form of phospholipids and cholesterol.

Tryglycerides

These are the major forms in which plant and animals store surplus fuel. It is made up of a single glycerol molecules with three other groups are fatty acids. When glycerol is combined with one

fatty acid, it is called monoglycerol is combined with one fatty acid, it is called monoglycerol, with two fatty acids, a diglycerol, and with three fatty acids.

Phospholipids

They look like glycerol that has a phosphorus-containing molecules attached in place of one soluble in fat. They make up only a few percentages of total dietary lipid intakes. It is naturally found in soybeans and egg yolk.

2.10.2. Cholesterol

Wardlow (2001), has stated that cholesterol has been portrayed as a villain thus plays more important role in human body. The human body uses it to synthesize a number of essential is a reflection of the critical role cholesterol plays in those organs. Mifflin (1988) observed that some researchers believe polyunsaturated fats lower the bodies of cholesterol.

He further argued that cholesterol is waxy substance related to fats that helps forms nervous tissues. It is found in foods such as butter, eggs, and fatty meats. It is also produced in the liver. Many scientists believe that a diet rich in saturated fats and cholesterol, leading to increase cholesterol levels in the body, increase the risk of heart disease.

Sources of cholesterol

Cholesterol is found mainly in animal foods such as meat, eggs, fish, poultry, butter and others. Meat organs such as liver, kidney and eggs contain high level of cholesterol.

Whitney (1993), observed that the human body manufactures it own. They argue the human liver manufactures cholesterol at the rate of 5×10^6 molecules per second (800 to 15000mg per day).

Mifflin (1988), has indicated the percentages of fats in some common foods. The table below is the list of fatty foods and their percentages.

Table 2.1. Fatty Foods

Fatty foods	Percentages (%)
Oil, salad and cooking butter	100
Margarine	81
Cakes, cookies, doughnuts, pies	10-25
Hamburger	17
Avocado	16
Eggs	11
Cheese pizza	7
Whole milk	3

2.10.3 Kinds of Fats

There are two major kinds of fats according to Mifflin (1988). These are polyunsaturated and saturated fats. Most fats that are liquid at room temperature are classified as polyunsaturated fats. Fish oils and most vegetable oils, such as corn oil and soybean oil, are sources of polyunsaturated fats. In contrast, saturated fats are fats that are solid at room temperature. Butter, lard, and other animal fats tend to be high in saturated fats.

2.10.4. Good Fats and Bad fats

Borchers(2004), categorized fats into good and bad. According to him all fats are not alike. Some types of fats are essential for good health. Other fats can raise blood cholesterol levels or have other negative effects on cardiovascular health.

Good fats

The fats in this category are unsaturated fats found in plant foods or in fish that eat microscopic plants. Foods rich in these “good” unsaturated fats are:

- Omega-3 fatty Acids- found in fatty fish such as salmon, herring, sardines and trout
- Omega-6 Fatty Acids- found in vegetable oils like corn oil, safflower oil, soybean oil, sunflower oil, margarine and others.
- Monounsaturated fats- found in vegetable oils like olive oil, canola oil, peanut oil, avocado and others.

Bad fats

These are fats with negative health effects are saturated fats and Trans fats. It is found primarily in high-fat meats and dairy foods. Saturated and Trans fats may also make the lining of blood vessels less flexible. Foods with bad or unhealthy fats are:

- Saturated fats- found in fatty cuts of beef, pork and lamb. Also in poultry skin, chicken wings, dark meat chicken, cheese, butter, whole milk and others.
- Trans fatty acids- found in stick margarine and some tub margarines, fried foods like doughnuts French fries, and others.

2.10.5. Functions of Lipids in the Body

Dupuy and Mermel (1995) explained two major roles performed by lipids in the body. These are structural and functional roles. Apart from the primary source of heat and energy, fats and oils perform several functions.

Protection

One major function of fats and oils is for protection. Fats do this by serving as shock absorbers, cushioning delicate body organ notably the kidney. Which is protected from moderate amount of traumatic injuries by fats and oils (Wardlaw, 2000).

Fats as Insulators

Fats function to help keep the body temperature constant. This performed by triglycerides in the body. Triglycerides stored in adipose tissue forms the bodys longest fuel reserve and provide vital insulation. Dupuy and Mermer (1995) observed that facts acts as blankets, insulating the human body from cold and the same time, serves as fuel on which the body can draw on during an energy crises.

2.11. Production of body Compounds

Whitney and Rolf (1993) explained that fatty acids produce various compounds necessary for the proper functioning of the body. Polyunsaturated fatty acids are the two omega families with their derivates which help in the production of clot; help control blood, among others. They also state that lecithin's and phospholipids cell membrane constituent allowing fat-soluble vitamins and other hormones to pass easily in and out of cells. They also act as emulsifying agents who help keep other fat suspended in the blood and body fluids.

2.11.1. Functions of fats in our Diet

Dietary fats play several important roles in the body.

Traditionally, fat has helped a prominent place in Ghanaian diets, performing various functions among which includes: improving the nutritive value of diet. Apart from providing the body with

a source of energy, fat provides food nutrients like A, D, E, K. For instance wheat germ oil is rich in vitamin E. Dupuy and Mermel (1995) stated that high fat foods and slow indigestion.

2.11.2. Stimulate Appetite

Fats and oils make it easier for us to detect food flavor due to the aromatic compounds present in them. They also enhance or enjoyment of food flavor as we eat and help satisfy our appetite and our hunger. According to Dupuy and Mermel (1995), people always choose foods containing fats as the best tasting.

2.11.3. Fats as emulsifier

Warlaw and Kessel (2002) observed that emulsifiers are added to many foods during their preparation to improve texture. Eggs are added to cake and butter likewise to emulsify the fat with the milk. Other emulsifiers according to Wardlaw and Kessel (2002), are monoglycerides and related compounds.

2.11.4. Fats as base for Stews and Soups

Fats and oils are also used as a base for stew, gravies and also as a garnish for soup to make them appetizing and attractive. For example palm oil is added to tomato stew to make it more attractive and appetizing.

2.12. Health Problems Associated with Fat and Oil Consumption

Fats and oils have had many negative reports for the past few years, because of the association with, as with many things, is the excess fat we eat (William, 1994). The most prominent health

implications of excess fat intake are hypertension, myocardial infarction (heart attack), cardiac ceahexia, cerebrovascular accident (stroke), diabetes, obesity and others.

2.12.1. Coronary Heart Diseases

Coronary heart diseases are also called cardiovascular diseases and are diseases that are related to the heart and vessels. William (1994) indicated that the focus of the problem in coronary heart diseases is the development of plaque which line the blood vessel and lead to a thickening of the vessel and eventually blocking the flow of the blood through the vessel. The most common coronary heart disease that is associated with excess body fat is myocardial infarction (heart attack) cerebrovascular accident (stroke) and hypertension (high blood pressure) (Wardlaw, 2000).

2.12.2. Cancer

Cancer is a disease in which abnormal cells multiply out of control, en into surrounding tissues and other body parts, and disrupt normal functioning of one or more organs (webb, Whitney and Debruyne, 1999). They further argued that fat intake hosting both implicated as a factor related positively with the incidence of and mortality cause by cancer of the breast, colon and prostate. They argue that high fact diets increase the rate of development of cancer at several sites. There is clear evidence linking excess fat intake to the development of different types of cancer.

2.12.3. Diabetes

Diabetes also contributes greatly to heart disease. Both major types of diabetes, Type 1 and Type 2 are caused by problems in the body's use of its blood sugar glucose (Webb and Debruyne, 1999).

Type 1 is less common and more often affects children and teenagers. Type 2 accounts for 80 percent of cases and most often affect people in middle age.

In diabetes, the concentration of blood glucoses soars far beyond the normal level. When this happens, a classic symptoms of diabetes show up. This happens when a result of high intake of fatty foods and predispose an individual the disease. Fat especially waxy fat from meat, red palm oil, milk and milk product together with cholesterol help to harden and clog the blood.

2.12.4 Obesity

Obesity is a clinical term for excess body weights defining it in the sense of disease (William, 1994). Even though genetic, physiological and social factors all contribute to obesity, the primary cause is excessive fat intake. Obesity mostly results from imbalances between energy intake and energy output. High fat diet promote obesity by encouraging over-eating because satiety is reached at a high energy intake on high fat diets that in low fat diets. If there is a high consumption of saturated fatty acids with less activity energy output, obesity is a very high possibility (Guthrie and Piceiano, 1995).

2.13. Reducing Health Problems Associated with Fat and Oil Consumption

Natural Heart Foundation of Australia (1999) has suggested some ways of reducing health problems associated with fat and oil intake. The foundation has indicated that instead of cutting all fats from your diet, make sure that you eat less saturated and Trans fats (the less healthy fats) and replace them with polyunsaturated and monounsaturated fats (the healthier fats).

The following have been shortlisted as ways of reducing health problems associated with fat and oil intake;

- (i) Choose from a variety of vegetable and seed oils when you are preparing food. Healthier choices include canola, sunflower, soybean olive, sesame and peanut oils
- (ii) Select lean meat and poultry (meat trimmed of all visible fat and chicken without skin).
- (iii) Limit foods such as liver, kidney and pate
- (iv) Use spreads and margarines made from canola, sunflower or olive oil and diary blends instead butter every day.
- (v) Use salad dressings and mayonnaise made from canola, sunflower, soybean, olive, sesame and peanut oil.
- (vi) Try to limit take-away foods such as pastries, pies, pizza, fried fish, hamburgers, hot chips and creamy pasta dishes to once a week.

2.13.1. Fat Replacement Strategies

Apart from taking low fat foods, as a means of reducing human fat intake, (Wardlaw and Kessel, 2002) prescribed five strategies for reducing fat intake.

These include:

- Water-water is the simplest fat replacement strategy. Addition of water yields product such as diet, margarine which are less in fats, than the normal fat.
- Starch Derivatives: starch derivatives that bind water are used as fat replacement. Most starch derivatives contain some calories but these are less than half the amount that is in fats. The produce gel that replaces some of the mouth feels lost by the removal of fats. Derivatives commonly used include cellulose, malt ion, stellar and qatrim. These derivatives are in foods such as luncheon, meat, salad, candies and table spread.

- Gums from plant are also used to replace fats. Gum thickens a product and replaces some of the body fat provided. Diet salad dressing has gums added for this purpose.
- Protein- Derived fat Replacement: these are proteins treated to produce microscopic, mist like protein globules. When these substances replace fat in food, they feel like fat in the mouth although the product does not contain any fatty acid. Both egg and milk protein can be used for that purpose.

2.14. Eating Pattern of Students

University students in America who offered programmes like Home Economics, and Nutritional related programmes have positive eating habits than students in other disciplines like social sciences and humanities (Crockette and Littcell, 1995). They argue further that a large number of students exhibit some eating habits and behaviours that are in conflict with sound nutritional principles to consume a lot of fatty foods through their activity rate which was comparatively low. Healthy eating does more than nourish your ability to enjoy life to the fullest by improving overall wellness, both physical and mental (Fahey, 2007). The researcher observed that the diet of most students are built around fat-rich foods which are traditionally eaten in foreign countries. Food consumed by students are made up of sauces which oils are used as a base, margarine, pastries, chicken, cheese, eggs and others. Continental dishes like fried rice and chicken, pizza and others are said to be eaten by students especially ladies and therefore has resulted in their increase intake of fatty foods and accumulation of much fats in the body since the activities of students are predominantly academic in nature and therefore requires comparatively low energy output.



CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses methodology employed for the study. The chapter covers the research design, population, sampling techniques and size, and data collection techniques.

3.2. Research Design

The researcher considered the descriptive survey design appropriate for the study, since it involves collecting data in order to answer questions concerning the current status of the subject of the study. Also, it determines and reports the way things are. According to Gay (1992), the descriptive survey design is directed towards determining the nature of the study. It focuses on vital facts about people and their beliefs, opinions, attitudes, motives, and behaviours, and simply describes and provides understanding of a phenomenon. In-depth follow up questions can be asked, about items that are unclear and can be explain using the descriptive design (Wallen and Fraenkel, 2000). Robson (2002) added that descriptive research portrays an accurate profile of persons, events or situations. This research is descriptive because, it sought to describe” the background characteristics of the selected students; views of students towards fat and oil advertisement; students’ knowledge on health implicated ions of fat and oil consumption; and frequency of fat consumption by students.

3.3. Population

The populations of this study involved Students and teachers of Kwaso Rural Development College.

3.4 Sampling Techniques and Sample Size:

For the purpose of this study, the convenience technique was used. This means that respondents were selected because they were at the right place at the right time. In addition, purposive sampling techniques were used in choosing the teachers.

The researcher visited Kwaso Rural Development College where students from the two major halls of residence were selected for the study. With the convenience technique, students from the two halls were randomly selected. Convenience Technique was selected because respondents were at the right place and at the right time. In addition, two teachers who teach courses relating to the study area were purposively selected from the College and with the help of a comprehensive interview guide, vital information were gathered orally to enrich this work.

The sample chosen for the study was 50 students representing about 42% of the population size. Also two teachers who teach courses relating to the study area were purposively interviewed.

3.5 Data Collection Techniques

The data collection instrument used for the study involved questionnaire and interview.

3.5.1 Questionnaire

The questionnaires were administered to Students of Kwaso Rural Development College.

The questionnaire is divided into four sections (A, B, C, D). Section A of the questionnaire is made up of five (5) questions which sought personal information from the respondents. It sought for information on age, sex, level, programme of study and marital status. Section B is also made up of thirteen (13) questions which sought for information on fats and oil advertisement and students view on advertisement. The section C is made up of nine (9) questions which sought information on reasons for fats and oil consumptions. The last section is made up of 8 questions which also sought for information about student's knowledge of health implications on fat and oil. Both open and close ended questions were employed for the study. Various types of questions starting from open-ended and close-ended questions were used.

3.5.2 Interview

Interview was also conducted for the tutors of Kwaso Rural Development College. An interview guide comprising Twenty-five (25) questions was prepared to solicit information from the tutors on fat and oil advertisement and its health implications. The entire Twenty –five (25) interview guide was open-ended questions to elicit information from the tutors. Among the issues for the interview were weather the tutors have seen any advertisements on fats and oils. The sources of advertisement on fats and oils were also asked. Another issue is the kind of fat which is often seen advertised. There were also issues concerning the health implications on excessive fat and oil intake. How fat and oil can be regulated was another issue that came up.

3.5.3 Observation

The researcher made the observation at Kwaso Rural Development College, specifically from the two major halls of residence (Quainoo and Ashanti) as well as food vendors who sell different kinds of food on the campus. The researcher however observed most students at Quainoo and Ashanti making use of saturated fats which are mostly found in butter, fried foods and many types of meat, which encourages the harmful development of cholesterol.



CHAPTER FOUR

4.0. RESULTS AND DISCUSSION

4.1. Introduction.

This chapter presents the results and discussions from the questionnaire and interviews.

4.2. Result and Discussion of Questionnaire.

The results and discussion of questionnaire were obtained from the students. It reflected on issues like: Background Characteristics of Respondents; Fats and Oils Advertisement; Reasons for Fats and Oils Consumption; Knowledge of Health implications on Fats and Oil Consumptions; and what can be done to influence effect of advertisement on fats and oil consumption.

Background Characteristics of Respondents.

The demographic characteristics that respondents were asked to respond to include sex, age, level of study, marital status, and programme of study. The results are presented below:

Sex of Respondents.

In this section, respondents were asked to indicate their gender. The purpose was to identify the number of males and females who participated in this survey. The results are presented table 4.1.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	26	52.0	57.8	57.8
	Female	19	38.0	42.2	100.0
	Total	45	90.0	100.0	
Missing	System	5	10.0		
Total		50	100.0		

(Source: Author's own construct, 2014).

Per table 4.1, 45 respondents representing 90% answered this question with 5 respondents representing 10% not answering this question. Out of the 45 students who answered the question, 26 respondents representing valid percentage of 57.8 or 52% of total respondents are males. Also, 19 respondents representing 38% of total respondents and 42.2% of valid respondents are females. The implication of these findings are that the responses may be tilted towards the perceptions of the male gender as against the female gender.

Age of Respondents.

The respondents under this section were asked to indicate their age range. The purpose was to find out the frequency age of the respondents to ascertain the age range the responses are skewed to.

The results are presented in table 4.2.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-25 years	26	52.0	57.8	57.8
	26-30 years	7	14.0	15.6	73.3
	31-35 years	12	24.0	26.7	100.0
	Total	45	90.0	100.0	
Missing	System	5	10.0		
Total		50	100.0		

(Source: Author's own construct, 2014).

According to table 4.2, 26 respondents representing 52% of total respondents and 57.8% of valid respondent are 20 to 25 years. In addition, 7 respondents representing 14% of total respondents are 26-30 years old with 12% of total respondents falling within 31-35 years old. Moreover, 100% of the valid respondents are 35 years and below.

Level of Study of the respondents.

The level of study of the respondents are presented in table 4.3.

Table 4.3. Level of Study of Respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100 (1st Year)	14	28.0	35.0	35.0
	200 (2nd Year)	14	28.0	35.0	70.0
	300 (Final Year)	12	24.0	30.0	100.0
	Total	40	80.0	100.0	
Missing	System	10	20.0		
Total		50	100.0		

(Source: Author's own construct, 2014).

According to table 4.3, 14 respondents representing 35 valid percentage are in their first year and second year of studies respectively. However, 12 respondents representing 30% of valid percentage are in their third year of study. In addition, 10 respondents representing 20% of total respondents did not answer this question. The findings suggest that the respondents are fairly distributed across the various years of studies. This means that the responses fairly reflect the perceptions of the three classes of studies.

Programme of Study.

In this part respondents were asked to indicate their programme of study. The purpose was to identify the various programmes of studies of the respondents to determine whether the responses are fairly distributed across the various programmes of study. The various programmes were coded

as follows: 1-psychology; 2- Human Resource Management; 3-Rural Sociology; and 4-home Economics. The results are presented in figure 4.1.

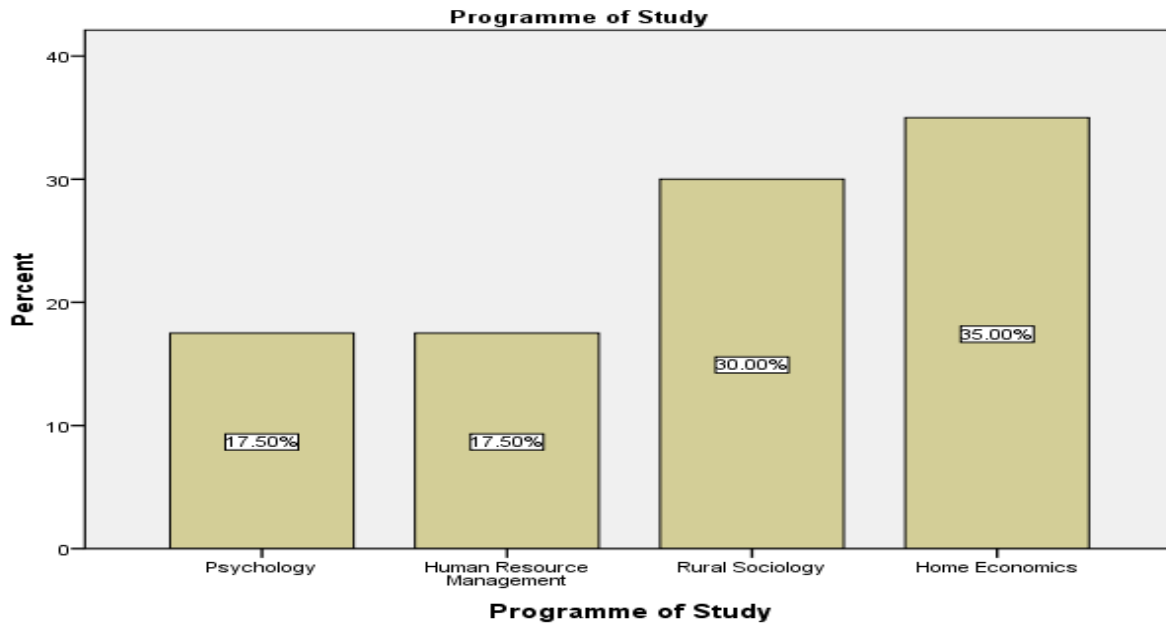


Figure 4.1. Programme of Study of Respondents

According to figure 4.1, 17.5% of the valid respondents are Psychology and Human Resource Management students respectively. On the other hand, 30% and 35% of the valid respondents studies Rural Sociology and Home Economics respectively. This means that 65% of the valid respondents study subjects other than Home Economics. The implication of this finding is that most of the responses came from students whose specialty are not food and nutrients.

Fats and Oils Advertisement.

In this section respondents were asked to answer series of questions relating to fats and oils advertisement. The questions bothered on frequency of fats and oil adverts exposure, sources of

fats and oils adverts, and types of fats and oils that are normally advertised. The results are presented below:

Exposure of Fats and oils Advertisement.

In this part, respondents were asked to indicate whether they have seen fats and oils advert before and if yes to indicate the frequency of fats and oils adverts they are exposed to per week. For the question "Have you ever heard or seen any advertisement on fat and oil?" The "yes" response was coded 1 and the "no" response coded 2. The average mean for the two coded responses is 1.5 implying that a mean below 1.5 is tilted towards "yes" response and above 1.5 is tilted towards 'no' response. On the other hand the responses for the question "How often are these advertisement made?" were coded; once a week-1; twice a week-2; thrice a week-3; and several times-4. The results are presented table 4.4.

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Have you ever heard or seen any advertisement on fat and oil?	50	1.00	2.00	1.1400	.04957	.35051
How often are these advertisement made?	50	1.00	4.00	3.5800	.14871	1.05153
Valid N (listwise)	50					

(Source: Author's Own construct, 2014).

According to table 4.4, all the respondents answered the two questions relating to seen or hearing fats and oils advertisement and the number of times respondents hear fats and oils advertisements. The minimum and maximum statistics for the question "Have you ever heard or seen any advertisement on fat and oil?" is 1.00 and 2.00 respectively. This means that some respondents answered "Yes" and others responded "No". The mean figure recorded for this question is 1.14

which is below 1.5. This implies that on average the respondents accept that they have seen or heard fats and oils advertisement before. The standard error of mean for the same question is 0.04957. Since the standard error is below 0.50 (the standard error of mean (the standard deviation of the sample mean from the population mean) on a dichotomous question), it indicates that the response given by the respondents can be used to predict the population mean. That is, if the entire population were surveyed, the responses that would have been generated would not have been significantly different from the sample mean. In fact the population mean can be predicted by adding the sample mean to ± 0.04957 (standard error of the mean). Using the standard error of the mean calculated, the population mean of this question will range from 1.09 to 1.19. This means that if the whole student body had been surveyed, on average they would have responded that they have seen fats and oils advertisement before. The standard deviation of the responses from the sample mean is on average 0.35051 (which is lower than the 0.70711 standard deviation on a dichotomous question) away from the population. The small size of the calculated standard deviation indicates the closeness of the responses given by the respondents to the sample mean.

On the other hand, even though some of the respondents indicated “no” to the question of whether they have seen advertisement before, the entire respondents answered the question on the number of times they have been exposed to fats and oils advertisement in contravention of the questionnaire guidelines. However, the entire responses were analysed. Per table 4.4, the minimum statistics given by the respondents were 1 (corresponding to the response “once per week”) and the maximum statistics given by the respondents was 4 (corresponding to the response “several times per week”) denoting that some respondents have been exposed to fats and oils several times a week. The mean of the same question is 3.58 which is above the thrice per week but below

several times per week. The mean figure recorded suggested that on average the respondents are exposed to fats and oils advertisements for at least three times per week. Multiplying the average mean by 52 gives 186 fats and oils advertisement per student per year. This suggests that the 50 students surveyed in total are exposed to 9,300 fats and oils advertisement per year. Extrapolating this figure to the entire population of 120 gives 22,320 fats and oils advertisement per year. The standard error of the mean for this question is 0.14871. This indicates that the population mean is 0.14871 away from the population mean. Since the standard error of the mean is below 0.64550 (the standard error of mean on a 4-points multiple choice questions), it indicates the sample mean is predictive of the population mean. That is the responses from the 50 respondents can be used to adequately generalise about the entire student body. The standard deviation of the responses is 1.05153 away from the population mean. Since the standard deviation recorded is lower than the 1.29099 (the standard deviation on a 4-points multiple choice questions), it indicates that the responses given by the respondents are closer to the sample mean than the closeness of the 4 responses to the mean of 2.50 on the 4-points multiple choice questions.

Sources of Fats and oils Advertisement.

In line with the question on how often respondents are exposed to fats and oils advertisements, respondents were asked to indicate the sources of fats and oils advertisements and to rank these sources. For the ranking of sources of advertisement, the highest was rank 5 with the least being ranked 1. The results are presented in table 4.5.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Radio	7	14.0	14.0	14.0
	Television	36	72.0	72.0	86.0

	Poster	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

(Source: Author's fieldwork, 2014)

According to Table 4.5, 7 respondents representing 14% each indicated radio and posters as their major source of fats and oils advertisement. Majority of the respondents (36) representing 72% indicated television as their main source of fats and oils advertisement. This implies that television constitutes the major medium that fats and oils producers' uses to reach the students of Kwaso Rural Development College. However, none of the respondents indicated billboards, newspapers/magazines as sources of fats and oils advertisement.

According to table 4.6, respondents ranked television as the topmost sources of fats and oils advertisement among the respondents as evidenced in the recorded mean figure of 4.86 out of 5.00. This is followed by Radio with a recorded mean figure of 3.86 out of 5.00. Billboards and newspapers/magazines were rank 3rd and 4th as evidenced in the recorded mean figures of 3.04 and 2.80 respectively. The least source of information was posters. The rankings in table 4.6 to some extent confirms table 4.5. Table 4.6 confirms table 4.5 findings that television is the topmost source of information. However, the findings in table 4.6 also contradicts table 4.5. For example whilst in table 4.5, none of the respondents indicated billboards and newspapers as source of fats and oils advertisement, these sources were ranked 3rd and 4th as the media of advertisement that influences most. In addition, whilst in table 4.5, respondents indicated posters as one of sources that respondents get fats and oils advertisement often, it was rank last in table 4.6. However, even though there seems to be contradictions, the question that lead to the development of table 4.5 required customers to indicate one source they often get fats and oils advertisements as against table 4.6 where respondents were asked to rank 5 media sources in descending order.

Table 4.6. Descriptive Statistics of sources of Advertisement Ranking

	N	Min	Max	Mean		Std. Deviation	Ranking
	Stat	Stat	Stat	Stat	Std. Error	Stat	
Television	50	4.00	5.00	4.8600	.04957	.35051	1
Radio	50	2.00	5.00	3.8600	.11784	.83324	2
Billboards	50	2.00	4.00	3.0400	.10286	.72731	3
Newspapers and magazines	50	2.00	4.00	2.8000	.09476	.67006	4
Poster	50	1.00	1.00	1.0000	.00000	.00000	5
Valid N (listwise)	50						

(Source: Author's fieldwork, 2014).

Type of fat and oils often advertised.

In this part, respondents were asked to indicate the type of fats and oils that are frequently advertised. The results are presented in table 4.7.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vegetable oils	43	86.0	100.0	100.0
Missing	System	7	14.0		
Total		50	100.0		

(Source: Author's fieldwork, 2014).

According to table 4.7, 7 respondents did not answer this question leaving 43 respondents. Interestingly, the valid respondents representing 100% indicated vegetable oils as the fats and oils adverts they often see. This is quite surprising. This is because, one would have expected different arrays of non-vegetable based fats and oils adverts to have crop up. The absolute response from the respondents may indicates that perhaps most of the different fats and oils brands marketers

bombard respondents with on different media outlets might all been vegetable based. It may also be that marketers of vegetable oils target students prime programmes and hours to advertised their products that is respondents absolutely hears or sees nothing else but vegetable oils. This implies that if the marketers of vegetable oils have students especially those from Kwaso Rural Development College as their audience then their strategies may be working. If advertisement have influence on fats and oils consumption, then the exposure of students to vegetable oils may be good after all. This is because, vegetable base oils are considered to contain good fats as against non-vegetable fats and oils.

Effects of advertisement on fats and oils Consumption.

Four questions were asked under this section to indicate the effect of advertisement on fats and oils consumption. The first two question bothered on whether adverts influence choice of fat and how strong it is. The last two questions bothered on what can be done to influence fats and oils advertisements.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	62.0	62.0	62.0
	No	14	28.0	28.0	90.0
	Can't tell	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

(Source: Author's fieldwork, 2014).

According to table 4.8, 31 respondents accepted that adverts influence their fats and oils choices. This represents 62% of the respondents. On the other hand, 14 respondents representing 28% indicated that advertisement do not influence their choice of fats and oils. However, 5 respondents representing 10% cannot tell whether advertisement influence their fats and oils choices.

Per table 4.9, the question “how would you rate your choice of fats and oils as influenced by advertisement?” recorded a mean figure of 3.6842. This mean figure is above 3.0 (on 5-point scale ranging from very strong to very weak). This means that per the respondents, the effect of fats and oils advertisements on their choices is moderately strong. This indicates that other factors also contribute quite enough influence on their fats and oil choices in addition to advertisement.

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
How would you rate your choice of fat and oils as influenced by advertisement?	38	3.00	5.00	3.6842	.12569	.77478
Valid N (listwise)	38					

(Source: Author’s fieldwork, 2014).

The researcher made observation at Kwaso Rural Development College, specifically from the two major halls of residence (Quainoo and Ashanti) as well as food vendors who sell different kinds of food on the campus. The researcher however observed that most students at the College were making use of saturated fats which are mostly found in butter, fried foods and many types of meat, which encourages the harmful development of Cholesterol. Added to this, most foods available to students are rich in fats and oils. Foods such as fried fish, fried egg, fried rice and chicken, and other fatty foods were seen on the campus.

Reasons for Fats and Oils Consumption.

Respondents were asked to indicate reasons for fats and oils consumption. They were to assess 9 statements testing reasons for fats and oil consumptions on the basis of 5-point likert scale. The results are presented in table 4.10.

Table 4.10. Descriptive Statistics for reasons for fats and oils consumptions

	N	Min	Max	Mean		Std. Deviation	Skewness	
	Stat	Stat	Stat	Stat	Std. Error	Stat	Stat	Std. Error
Moisture retention (does not makes the food dry or stale)	45	1.00	5.00	3.6444	.19632	1.31694	-1.047	.354
Good flavour (makes the food smells good)	50	1.00	5.00	3.4000	.17843	1.26168	-.940	.337
Nutrients in them.	50	1.00	5.00	3.3800	.19565	1.38343	-.391	.337
Effective cooking	50	1.00	5.00	3.3200	.20292	1.43484	-.291	.337
Mouth-feel (makes the food tasty or palatable)	50	2.00	5.00	3.2800	.14857	1.05056	-.046	.337
Appearance (makes the food attractive)	50	1.00	5.00	3.2000	.20800	1.47080	-.080	.337
I do not have much non-fat base foods choices	45	1.00	4.00	2.5333	.17866	1.19848	-.165	.354
I do not have any other options than to eat them.	50	1.00	4.00	2.3400	.16064	1.13587	.327	.337
Economic reasons (Fats and oils base foods are cheaper)	50	1.00	3.00	1.8600	.08086	.57179	-.015	.337
Valid N (listwise)	45							

(Source: Author's own construct, 2014).

According to table 4.10, six (6) constructs recorded Mean figures above 3.00. This means that respondents accept the six constructs as reasons for fats and oils consumptions. These are moisture retention (3.6444), good flavour (3.4000), nutrients (3.3800), effective cooking (3.3200), mouth-feel (3.2800), and appearance (3.2000). The implication is that respondents consume fats and oil firstly to retain moisture in them because moisture retention recorded the highest Mean figure of 3.6444. This is followed by good flavour, then nutrients, effective cooking, mouth-feel and

appearance. The interesting thing about the findings is that one would have expected nutrients to have being the topmost reason for fats and oil consumption. However, it was the third reason for fats and oil consumption. In addition, even though six reasons were accepted, none of them recorded Mean figure above 4.0000 (corresponding to ‘agree’ response on the 5-point likert scale). This means that the reasons are moderate reasons for fats and oil consumption.

On the other hand, three (3) respondents were rejected as reasons for fat and oil consumption because they recorded Mean figures below 3.0000. These are I do not have much non-fat base foods choices (2.5300), I do not have any other options than to eat them (2.3400), and Economic reasons (Fats and oils base foods are cheaper) (1.8600). This implies that respondents consume fats and oil not because they do not have much non-fat base food choices or because they are cheaper. Also, all the constructs tested except ‘I do not have any other options than to eat them’ are negatively skewed.

Knowledge of Health implications on Fats and Oil Consumptions.

In this part, respondents were asked to indicate their level of agreement or disagreement on the statement “excessive fat consumption is dangerous to human health”. The result is presented in table 4.11.

Table 4.11. Descriptive Statistics of health implications of fat and oil.

	N	Min	Max	Mean		Std. Deviation	Skewness	
	Stat	Stat	Stat	Stat	Std. Error	Stat	Stat	Std. Error
Excessive fat consumption is dangerous to human health.	50	4.00	5.00	4.9000	.04286	.30305	-2.750	.337

(Source: Author’s fieldwork, 2014).

According to table 4.11, the respondents accepted highly that excessive fat consumption is dangerous to human health as shown in the recorded mean figure of 4.90 which is above the agree response but just 0.1 mean points below the strongly agree response. In addition, the entire respondents either indicated agree or strongly agree to the statement with none of the respondents indicating neutral, disagree or strongly disagree. In addition the standard deviation of the individual responses from the mean is 0.30305 which is far below the standard deviation on the 5-point likert scale. In addition, the standard error of the mean is 0.4286. Also, the responses given were negatively skewed with standard error of skewness being 0.337. The implication is that there is no doubt in the minds of the respondents that excessive fat and oil consumptions is dangerous to human health. This is not surprising because the respondents are students and might have been taught that fats and oil consumptions have negative side effects.

When respondents were asked to indicate how excessive fats and oil affect human health, some of them indicated that excessive fats and oil can block the human veins thus preventing the free flow of blood. Some also stated that un-burn fats are stored in the body and high accumulation of these fats causes obesity. The respondents mentioned diseases associated with excessive fats and oil consumption to include hypertension, diabetes, stroke, and cancer. All these diseases are dangerous and can lead to death.

Moreover, the respondents indicated the causes of fats and oil related diseases to include; excessive intake of saturated fats; consumption of hydrogenated oils which raises cholesterol levels; and consumption of solid fats.

Respondents also indicated the following as some of the things individuals can do to prevent fats and oil related diseases: reducing the intake of fats and oil; regular body exercise to burn fats and

oil; eating fruits and vegetables as part of daily meals; use of monounsaturated fat (such as canola and olive oil); use of polyunsaturated fat (such as soybean, corn, and sunflower oils) in recipes that calls for fat; and also when choosing foods low in fat and oil, make sure they are also low in saturated fat and cholesterol.

Mitigating the influence effect of advertisement on fats and oil consumption.

In this section respondents were asked what can be done to influence effect of advertisement on fats and oil consumption. The results are presented in tables 4.12 and 4.13.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	38	76.0	88.4	88.4
	Don't know	5	10.0	11.6	100.0
	Total	43	86.0	100.0	
Missing	System	7	14.0		
Total		50	100.0		

(Source: Author's own construct, 2014).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	48.0	48.0	48.0
	No	19	38.0	38.0	86.0
	Don't know	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

(Source: Author's own construct, 2014).

Per table 4.12, 38 respondents representing 76% of total respondents and 88.4% of valid respondents indicated that government can regulate products being advertised. However, 11.6% of valid respondents indicated that they do not know. None of the respondents indicated that government cannot do something about the type of products that are advertised. The findings

suggest that the respondents believe that government has an obligation to protect the citizenry against the menace of fats and oils advertisements. However, Ghana is free market democratic country where businesses are allowed to operate without the interference of central government once they operate within the confines of the law. This means that it will be illegal for the government to interfere with the advertisement of fats and oil especially where there is no infringement on the law. This means that even though respondents agree that government can do something about fats and oil advertisement, the ultimate responsibility lies with consumers.

The respondents also indicated Food and Drugs Authority, Ministry of Health, and Ghana Health Services as government agencies responsible for curtailing fats and oil consumption. The respondents also added that the government can curtail the advertisement and consumption of fats and oil through the following strategies: public education on the effects of fats and oil on human health; banning products that are low in healthy nutrients; quality checks on fats and oil products before they are released into the market; frequent auditing of fats and oil products in the market; imposing high tax on imported fats and oil products; enforcement of food and drugs authority standards; regulating advertisement of fats and oil products; and instituting punitive measures for breach of fats and oil advertisement regulation.

Also, per table 4.13, 24 respondents representing 48% indicated that the mass media had influence in interest in fat and oil with 38% indicating “No”. Also, 14% indicated they do not know whether the mass media have influence their interest in fat and oil or not. The findings indicated that less than 50% think that the mass media has influence their interest in fat and oil. This is quite interesting because if the respondents accept that advertisement has influence their fats and oil

consumption, then it follows that mass media influences their interest in fat and oil consumption. This is because advertisement is carried through the mass media.

When respondents were asked to indicate what can be done by individuals to reduce the influence of advertisement on the choice of fats and oils, they stated that: individuals should consume only fats and oils rich in omega 3 and other good fats; and ignoring fats and oil advertisements especially those advertising bad fats.

4.3. Result and Discussion of Interview.

In order to triangulate the findings of the students, two teachers were purposively interviewed. These two teachers were selected from the home economics department. The discussion of the responses are presented below:

Exposure to Fats and Oils Advertisement.

Respondents were asked if they have ever seen or heard advertisement on fats and oil before. The two tutors responded in affirmative. When they were asked, how often they have heard these advertisements, the first tutor indicated seeing or hearing the fats and oil advertisement several times a week. The second tutor indicated seeing or hearing fats and oil advertisement at least three times a week. Assuming an average exposure of 4 adverts per week, each of the tutors are exposed to 208 adverts per year. The finding is consistent with findings from the students where each of the students are exposed to about 186 fats and oil advertisement per years. The findings also shows that the tutors are exposed to more fats and oil advertisement than the students. This may not be quite surprising because most of the students may be in hostels where the use of electronic gadgets

like radio, television are restricted as against Tutors who have the luxury to use electronic gadgets like television and radio sets. In this regard, the Tutors are more likely to be exposed to fats and oil advertisements. In spite of the difference in the exposure of Tutors and Students to fats and oil advertisement, the significant finding is that Tutors are highly exposed to fats and oil advertisements per year just like their students. The justification is that even though the Tutors cannot speak for the students, the mere fact that the Tutors are even more exposed to fats and oil advertisement than the students goes a long way to validate the students' assertion on their exposure to facts and oil advertisements.

Sources of Fats and oils Advertisement.

On the question of which sources do the Tutors often get advertisement on fats and oil, the first tutor indicated television and radio. The first tutor goes on to ranked television ahead of radio in terms of the media source with the most influence. The second tutor mentioned television, newspapers, billboards, and radio as her sources of fats and oil advertisements. Even though the second tutor also ranked television as the media source with the highest influence, she ranked billboards ahead of radio and newspapers. The findings confirmed the assertion by the students on television having the most influence when it comes to fats and oil advertisements. The ranking of television as the media source with the most influence may be justified on the grounds, television advertisement provide more sensory appeals than other media sources.

Type of fat and oil often advertised.

In terms of the type of fat and oil being frequently advertised, the first tutor indicated vegetable oil whilst the second tutor indicated animal fat. This means that vegetable and animal fat are most frequently advertised fat and oil product. Vegetable fat and oil are mostly good fats as against

animal fats which most often turn up to be bad fat. Even though the two tutors mentioned both vegetable and animal fats, the mentioning of vegetable fats goes on to confirm the students' assertion.

Effects of advertisement on fats and oils Consumption.

The tutors indicated that advertisement influence their choice of fats and oil advertisement. The tutors continued that they will rate their choice of fats and oil as influenced by advertisement very high. However, even though the tutors' rate the influence of advertisement on fats and oil consumption, the students rate it moderately.

Reasons for Fats and Oils Consumption.

On the reasons for fats and oil consumption, the first tutor indicated that fats and oil add flavour to the food and it helps to preserve the food. The second tutor indicated that fat and oil nourishes the food (nutrients) and it add flavours. Synthesising the two reasons given by the tutors produces three main reasons for fats and oil advertisement. These are flavour, preservation, and nutrients. Even though, some of the reasons given by the tutors correspond with the reasons given by the students, there is divergence in the reasons. The divergence stem from the fact that the topmost reason given by the students for fats and oil consumption is for moisture retention, the tutors did not mention moisture retention as reason. One may argue that the tutors mentioned food preservation which may correspond with moisture retention. Even though the argument may be valid, it must be noted that moisture retention does not necessarily leads to preservation and as such the two reasons are different.

Knowledge of Health implications on Fats and Oil Consumptions.

The two tutors stated that consumption of excessive fats and oils is very dangerous to human health. They stated that excessive intake of fats and oils can lead to accumulation of cholesterol; which can block the free flow of blood. They continued that some of the health related diseases associated with excessive intake of fats and oil include stroke, hypertension, and diabetes. They stated that the causes of these diseases include excessive fats and oil consumption especially bad fats and inadequate exercising.

Mitigating the influence effect of advertisement on fats and oil consumption.

On the question of what can be done to influence the effect of advertisement on fats and oil consumptions, the tutors indicated that these can be done at three levels. They stated that the first level of action is at the governmental level. They added that government has a responsibility to regulate the kinds of products that are advertised. They added that the government through its agencies like the Ministry of Health, Food and Drugs Authority, and Ghana Standard Authority should put in place measures such as public education to sensitize the general public about the dangers of fats and oil consumption. Also, government can use embargo and high tariffs to prevent the excessive importation of fatty products. They mentioned that the second level of action is at the individual levels. The individual consumer has a responsibility towards his/her own health care. They added that consumers should read product labelling before buying or using them. The third level is at the media sector. They added that the media should be circumspect with the type of products they advertised. They should be ethical to ensure that their platforms are not used to promote bad fatty products.



CHAPTER FIVE

5.0. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction.

This chapter presents the summary of findings, conclusion and recommendations of the study.

5.2. Summary of Findings.

The following are the summary of findings.

- It was discovered that on average each respondent is exposed to fats and oils advertisement for at least three times per week.
- It was also discovered that each student on average is exposed to 186 fats and oils advertisement per year whilst each Tutor on average is expose to 208 adverts per year.
- The study also revealed that television is the topmost sources of fats and oils advertisement for both Tutors and students.
- The study found out that, vegetable and animal fats and oil sources are the most advertised sources of fats and oil.
- The study discovered that the effect of fats and oil advertisement on students' fats and oil choices is moderately strong whilst it is very strong on tutors' fats and oil consumption.
- It was found out that the reasons for consumption of fats and oil among students are moisture retention, good flavour, nutrients, effective cooking, mouth-feel, and appearance in descending order. On the other hand, the tutors consume fats and oil for three main reasons.
- It was also discovered that diseases associated with excessive fats and oil consumption to include hypertension, diabetes, stroke, and cancer. In addition it was found that the causes of fats and oil related diseases include; excessive intake of saturated fats; consumption of hydrogenated oils which raises cholesterol levels; and consumption of solid fats.

5.3. Conclusion.

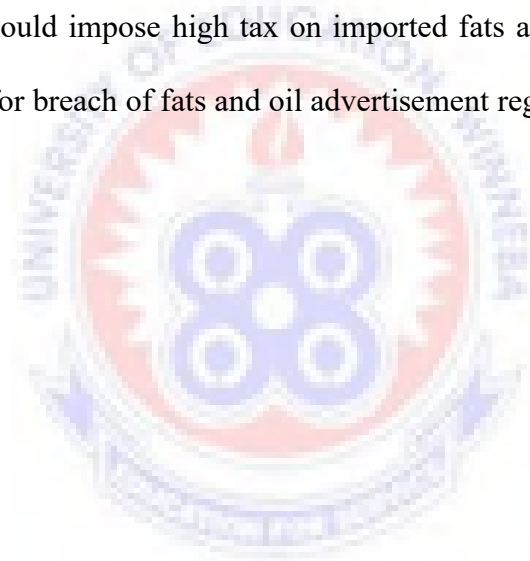
This study has contributed to available knowledge on the effect of advertisement on fats and oil consumption. After careful analysis of the empirical data, the following discovery were made. Firstly, it was found out that each student is exposed to at least 186 fats and oil advertisement per year whilst each tutor is exposed to at least 208 fats and oil adverts per year. Secondly, it was found out that television is the topmost sources of fats and oils advertisements. Thirdly, vegetable and animal fats and oils are the most advertised fats and oil. Also, the study found out that the effect of fats and oils advertisements on students' fat and oil choices is moderately strong but very strong on the part of tutors. In addition, it were discovered that the reasons for fats and oil consumption are moisture retention, preservation, good flavour, nutrients, effective cooking, mouth-feel, and appearance in descending order. On the other hand, the tutors consume fats and oil for three main reasons. These are flavour, preservation, and nutrients. Lastly, it was discovered that students have adequate knowledge of the effect of fats and oil consumption on human health.

5.4. Recommendations.

The following recommendations are made to address the findings:

- The government should put in place measures that will regulate the activities of advertisers as well as discouraging excessive consumption of fatty products.
- Students should shield themselves from excessive exposure to fats and oils advertisement.
- The government should regulate fats and oil advertisements on television to reduce the excessive fats and oil advertisements on the airwaves.
- Students should reduce the intake of fats and oil and embark on regular body exercise to burn fats and oil.

- People should also eat much fruits and vegetables as part of daily meals and use monounsaturated fat (such as canola and olive oil) and polyunsaturated fat (such as soybean, corn, and sunflower oils) in recipes that calls for fat.
- Government should embark on public education on the effects of fats and oil on human health and banned products that are low in healthy nutrients.
- Appropriate agencies like Food and Drugs board should conduct quality checks on fats and oil products before they are released into the market and engage in frequent auditing of fats and oil products in the market.
- The government should impose high tax on imported fats and oil products and institute punitive measures for breach of fats and oil advertisement regulation.



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APPENDICE

QUESTIONNAIRE FOR STUDENTS

This research is being carried out to investigate the influence of advertisement on fat consumption by students. Your contribution to the research will be appreciated. All information provided will be treated confidentially.

SECTION A. DEMOGRAPHY OF RESPONDENTS

Please tick () or answer the appropriate response.

(1) Sex: Male [] Female []

(2) Age: 20-25 [] 26-30 [] 31-35 [] 36-40 [] 41-45 [] 45 and above []

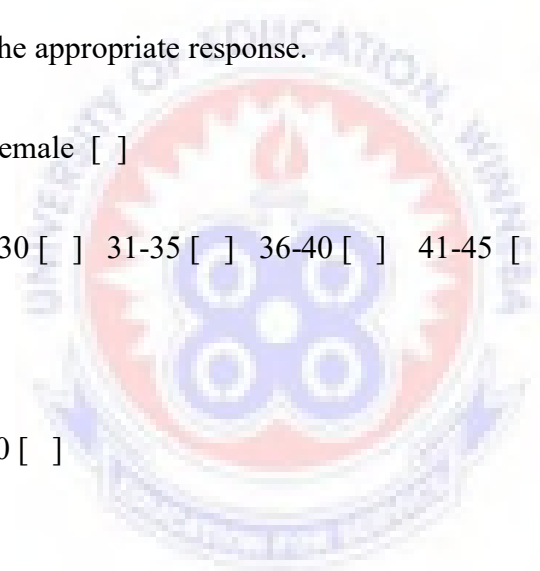
(3) Level

100 [] 200 [] 300 []

(4) Marital status

Married [] single []

(5) Program me of study.....



SECTION B

**FAT AND OIL ADVERTISEMENT AND STUDENTS VIEWS ON
ADVERTISEMENT**

(6) What is your definition of the term advertisement?

.....
.....
.....

(7) Have you ever heard or seen any advertisement on fat and oil?

Yes [] No []

(8) If yes to question 7, how often are these advertisement made?

Once a week [] several times []

Twice a week [] Thrice a week []

Others [specify].....

(9) From which sources do you often get advertisement about fats and oils?

Radio [] Bill Boards []

News papers\magazines [] Television []

Poster []

(10) Which media of the advertisements influences you most? (Give answer in order of preferences).

Radio, Television, Newspaper/ magazine, Billboards

(i).....

(ii).....

(ii Ii).....

(iv).....

(11) Which fat do you often see advertised?

Palm oil [] Vegetable oils [] Margarine [] others.....

- Do the adverts influence your choice of fat?

Yes () No (), Cannot Tell ()

(13) How would you rate your choice of fat and oils as influenced by advertisement?

Very strong [] Strong [] Neutral [] Weak [] Very weak []

(14) What can be done by individuals to reduce the influence of advertisement on the choice of fats and oils?

.....
.....

(15) Can the Central Government regulate products being advertised? Yes { } No { } Don't Know { }

(16) State at least two.

.....

.....

.....

.....

.....

(17) How would you rate your choice of fat and oils as influenced by advertisement?

Very strong [] Strong [] Neutral [] Weak [] Very weak []

(18) Do you think the mass media had in any way influenced your interest in fats or oil?

Yes [] No [] Don't know ()

SECTION C. REASONS FOR FATS AND OIL CONSUMPTIONS.

Please indicate the extent to which you agree with the following constructs as a reason why you consume fats and oils.

Reasons for Fats and Oils consumption	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
19. Good flavour (makes the food smells good)					
20. Appearance (makes the food attractive)					
21. Mouth-feel (makes the food tasty or palatable)					
22. Moisture retention (does not makes the food dry or stale)					
23. Effective cooking					
24. Nutrients in them.					
25. Economic reasons (Fats and oils base foods are cheaper)					
26. I do not have much non-fat base foods choices					
27. I do not have any other options than to eat them.					

SECTION D

KNOWLEDGE OF HEALTH IMPLICATIONS ON FATS AND OIL

28. Excessive fat consumption is dangerous to human health.

Strongly Agree [] Agree [] Neutral []

Disagree [] Strongly Disagree []

(29) How does excess intake of fat and oils affect human health?

.....
.....

30) State at least two health related diseases associated with excess intake of fats and oils.

.....
.....
.....

(31) State any two causes of the diseases related to fat and oil intake.

.....
.....
.....

(32) State at least two ways by which an individual can desist from getting diseases associated with excess fat intake.

.....
.....
.....

(33)The Central Government can assist in curtailing this menace.

Strongly Agree [] Agree [] Neutral []

Strongly Disagree [] Disagree []

(34)What Agency or Department is responsible for that?

.....
.....

(35)State at least two ways by which the Central Government can provide this assistance.

.....
.....



INTERVIEW GUIDE

SECTION A.

DEMOGRAPHIC VARIABLES OF RESPONDENTS

- **Gender of respondents.**
- **Experience with the college**
- **Course taught.**

SECTION B: FAT AND OIL ADVERTISEMENT AND STUDENTS VIEWS ON ADVERTISEMENT

- What is your definition of the term advertisement?
- Have you ever heard or seen any advertisement on fat and oil?
- If yes to question, how often are these advertisement made?
- From which sources do you often get advertisement about fats and oils?
- Which media of the advertisements influences you most? (Give answer in order of influence).
- Which fat do you often see advertised?
- Do the adverts influence your choice of fat?
- How would you rate your choice of fat and oils as influenced by advertisement?

- What can be done by individuals to reduce the influence of advertisement on the choice of fats and oils?
- Can the Central Government regulate products being advertised?
- In what ways?
- How would you rate your choice of fat and oils as influenced by advertisement?
- Do you think the mass media had in any way influenced your interest in fats or oil?
- What are your reasons for fats and oil consumption

SECTION C

KNOWLEDGE OF HEALTH IMPLICATIONS ON FATS AND OIL

- Do you think that fat consumption is dangerous to human health?
- How does excess intake of fat and oils affects human health?
- Indicate some of the health related diseases associated with excess intake of fats and oils.
- Indicate some of the causes of the diseases related to fat and oil intake
- Indicate some of the ways by which an individual can desist from getting diseases associated with excess fat intake.
- Can the Central Government can assist in curtailing this menace.
- What Agency or Department is responsible for that?
- Indicate some of the ways by which the Central Government can provide this assistance.

