

A study on the sources of information and perception of healthy diet among the national youth service institute of business studies students, in Nairobi County, Kenya.

by

Peter P. O. Sitima

A thesis presented to the School of Communication, Language and Performing Arts

of

Daystar University

Nairobi, Kenya

In partial fulfillment of the requirements for the Degree of

MASTER OF ARTS

in Communication

June 2013

A STUDY ON THE SOURCES OF INFORMATION AND PERCEPTION OF
HEALTHY DIET AMONG THE NATIONAL YOUTH SERVICE INSTITUTE OF
BUSINESS STUDIES STUDENTS, IN NAIROBI COUNTY, KENYA.

by

Peter P. O. Sitima.

In accordance with Daystar University policies, this thesis accepted in partial
fulfillment of the requirement of the Master of Arts Degree.

Date:

A. L. Lando, PhD.
Supervisor

Daniel M’Mutungi, DMIN,
Reader

Rahab Nyaga, PhD,
Head of Department, Communication

Prof. Levi Obonyo, PhD,
Dean School of Communication,
Language and Performing Arts

DECLARATION

A STUDY ON THE SOURCES OF INFORMATION AND PERCEPTION OF
HEALTHY DIET AMONG THE NATIONAL YOUTH SERVICE INSTITUTE OF
BUSINESS STUDIES STUDENTS, IN NAIROBI COUNTY, KENYA.

I declare that this thesis is my original work and has not been submitted to any other
college or University for academic credit.

Signed: _____

Date: _____

Peter P. O. Sitima

ACKNOWLEDGEMENTS

I am deeply indebted to my university supervisors Dr. A. L. Lando, and Dr. Daniel M'Mutungi for, positively, encouraging me throughout the entire study period. I appreciate their inspiration and great task of guiding me through the entire period of study. Their sense and love for hard work motivated me to work hard on my studies. I owe them many thanks. I take this opportunity to thank my research assistant Boaz Matunda for assisting me greatly during field work. I am deeply thankful to Dr. James Maraga for cooperating with me during my research. My thanks also go to those who contributed, in one way or the other; all my respondents for sparing time from their busy daily chores to respond to my questionnaire. May the Lord bless you abundantly!

DAYSTAR UNIVERSITY

TABLE OF CONTENTS

DECLARATION	III
ACKNOWLEDGEMENTS	IV
LIST OF FIGURES	VII
LIST OF ABBREVIATIONS	VIII
ABSTRACT.....	IX
DEDICATION	X
CHAPTER ONE	1
INTRODUCTION AND BACKGROUND TO THE STUDY	1
INTRODUCTION	1
BACKGROUND	1
PROBLEM STATEMENT	7
PURPOSE OF THE STUDY	8
RESEARCH OBJECTIVES	8
RESEARCH QUESTIONS	8
SIGNIFICANCE OF STUDY	9
JUSTIFICATION OF THE STUDY	9
SCOPE OF THE STUDY	10
LIMITATIONS AND DELIMITATIONS OF THE STUDY	10
ASSUMPTIONS OF THE STUDY.....	11
OPERATIONAL DEFINITION OF KEY TERMS	11
SUMMARY.....	12
CHAPTER TWO	13
INTRODUCTION	13
SOURCES OF NUTRITIONAL INFORMATION	15
KNOWLEDGE BASE RELATING TO DIETARY PLAN	16
USING THE INTERNET AS A RESOURCE.....	25
RECEIVING NUTRITION INFORMATION FROM PROFESSIONALS	26
DEVELOPING EATING HABITS THROUGH PEER ADVICE	27
CONCEPT OF AND FACTORS THAT INFLUENCE PERCEPTION	30
THEORETICAL FRAMEWORK.....	32
CONCEPTUAL FRAMEWORK	34
IMPLICATIONS FOR NYS IBS	35
SUMMARY.....	40
CHAPTER THREE	41
RESEARCH METHODOLOGY.....	41
INTRODUCTION	41
RESEARCH DESIGN	41
POPULATION	42
SAMPLE SIZE AND SAMPLING PROCEDURES	42
DATA COLLECTION INSTRUMENTS	43
DATA COLLECTION	44
RELIABILITY OF RESEARCH INSTRUMENTS.....	44
VALIDITY OF RESEARCH INSTRUMENTS	45
DATA ANALYSIS.....	45
ETHICAL CONSIDERATIONS.....	46
SUMMARY.....	46
CHAPTER FOUR.....	47
DATA PRESENTATION, ANALYSIS, AND INTERPRETATION	47
INTRODUCTION	47

RESPONSE RATE	47
GENDER	48
RESPONDENTS' YEAR OF STUDY	49
SOURCES OF NUTRITIONAL INFORMATION	50
STUDENTS' PERCEPTION OF HEALTHY DIET	56
STUDENTS' AVOIDANCE OF MESS FOOD.....	58
REASONS WHY STUDENTS SKIP MESS FOOD	59
SUMMARY OF KEY FINDINGS	59
SOURCES OF INFORMATION ON HEALTHY DIET INFORMATION.....	59
STUDENTS' PERCEPTION OF HEALTHY DIET	60
REASONS WHY STUDENTS SKIPPED MESS FOOD.....	60
CHAPTER FIVE	61
DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS	61
INTRODUCTION	61
SOURCES OF NUTRITIONAL INFORMATION	61
STUDENTS' PERCEPTION OF HEALTHY DIET	63
REASONS WHY STUDENTS SKIPPED MESS FOOD.....	65
AREAS FOR FURTHER STUDY	67
SUMMARY	68
REFERENCES	69
APPENDIX I: FREQUENCIES: ALL RESPONDENTS	75
APPENDIX II: FREQUENCIES: MALE RESPONDENTS	85
APPENDIX III: FREQUENCIES: FEMALE RESPONDENTS	96
APPENDIX IV: INTRODUCTION/CONSENT LETTER.....	107

LIST OF FIGURES

Figure 2.1 - Media literacy potential ability to buffer the influence of eating unhealthy food related media messages.....	33
Figure 2.2 - Conceptual Framework.....	35
Figure 4.1 - Gender of Respondents.....	48
Figure 4.2- Year of Study of Respondents.....	49
Figure 4.3- Year of Study of Respondents.....	49
Figure 4.4- Year of Study of Respondent.....	50
Figure 4.5 - Personnel consulted on Healthy Diet NYS IBS Students.....	51
Figure 4.6 - Personnel consulted on Healthy Diet Male NYS IBS Students.....	52
Figure 4.7- Personnel consulted on Healthy Diet Female NYS IBS Students.....	53
Figure 4.8- All Students' Sources of Information.....	54
Figure 4.9 - Male Students' Sources of Information.....	55
Figure 4.10 - Female Students' Sources of Information.....	56
Figure 4.11- Students' Perception of Healthy Diet.....	57
Figure 4.12 - Male Students' Perception of Healthy Diet.....	57
Figure 4.13 - Female Students' Perception of Healthy Diet.....	58
Figure 4.14 - Students skipping Mess Food.....	59

LIST OF ABBREVIATIONS

AAPS - American Academy of Political and Social Science

CDCP - Centre for Disease Control and Prevention

GoK - Government of Kenya

HIV/AIDS - Acquired Immune Deficiency Syndrome

MDGs - Millennium Development Goals

NCDs -Non-Communicable Diseases

NYS - National Youth Service

NYS IBS -National Youth Service Institute of Business Studies

SDA - Seventh Day Adventist

USA - United States of America

WHO- World Health Organization

TPB - Theory of Planned Behaviour

DAYSTAR UNIVERSITY

ABSTRACT

Past studies indicate that healthy diet communication aims to bring change to individual behaviours and social norms using some combination of media and interpersonal channels. However, these studies centre more on patient populations. The objective of this study was to find out the sources of information and perception of healthy diet among NYS IBS students in Nairobi County. The NYS IBS is composed of multicultural populations. At the NYS IBS, students are served with a diet that contains all the necessary food nutrients of proteins, vitamins, carbohydrates, minerals and fat. The study was guided by three objectives; to identify the sources students relied on for nutritional information; to examine the student's perception of healthy diet and; to establish why students avoided mess food and opted for food from outside the mess. Data was collected from 158 respondents selected from a study population of 700 using systematic simple random sampling technique. Key results indicated that students relied on nutritional books (14.6%), magazines (9.5%), internet (8.9%), television (7.0%), health institutions (15.8%), nutritionists (11.4%), parents (17.1%), NYS administration (17.7%), relatives (1.9%), and peers (3.2%). The students understood the concept of healthy diet (82.9%), yet many of them skipped mess food. The students skipped mess food due to poor hygiene conditions at the mess (19.0%), limited food variety (19%), poor cooking (17.7%), serving cold foods (5.7%), inadequate ration (14.6%), and due to medical reasons (7.6%). As a result the many respondents (50%) opted to consuming snacks. However, the snacks constituted of unhealthy diet. The study therefore recommended that information be availed to the students concerning practice of healthy diet eating. This will help avoid the discrepancy where students have knowledge of healthy diet but do not consume healthy diet.

DEDICATION

I dedicate this accomplishment to my Heavenly Father for giving me life to realize my educational dreams and to my mother Yunes Nyanchama, late grandmother Sabina Kerubo, and my late father Sitima Siro, for helping me achieve the best education that they could afford and also my beloved wife Joyce Kerubo, and my children for missing fatherly love during the study period.

DAYSTAR UNIVERSITY

CHAPTER ONE

Introduction and Background to the Study

Introduction

Communication is at the heart of behaviour change programmes in developing countries (Bertrand, 2006). Healthy diet communication programmes aim to bring change to individual behaviours and social norms using some combination of mass media, community level interventions, and interpersonal communication (Piotrow, Kincaid, Rimon, & Rinehart, 1997). Thus, health literacy is a rapidly expanding field of research (Paasche-Orlow, Wilson, & McCormack, 2010). However, a great deal of research over the past decade has been largely focused on defining and documenting the problem (Parker & Ratzan, 2010). This has described the phenomenon of limited health literacy (Institute of Medicine, 2004), has established that literacy is pervasive, and has demonstrated that it is associated with poor health outcomes (Johnson, Baur, & Meissner, 2011).

Background

In the United States, Food and Drug Administration (FDA) established regulations cognizant of the idea that a balanced and nutritious diet can reduce risk of disease. Because the focal point of health has been shifting, healthy diet has become a necessary factor in modern civilizations (Choi, & Kim, 2011). Indeed, poor nutrition is the second leading cause of preventable morbidity and mortality, and is among the top priorities of *Healthy People 2010* (U.S. Department of Health and Human Services, 2000).

Humans need food to live. Hence, a nutritious diet provides the individual the necessary energy to sustain a healthy body. Hippocrates, the father of Western Medicine, touted the idea that the most effective cure is to treat patients by providing a nutritious diet. Similarly Bon-Cho-Gang-Mok, the precursor of Eastern Medicine, professes the philosophy of Ei-Sik-Dong-Won, which considers a nutritious diet as the best cure possible (Choi, & Kim, 2011). Thus, a healthy diet has been stressed as an invaluable component of good health since ancient times.

As a result, Millennium Development Goals (MDGs) principally target the major poverty linked diseases devastating poor populations (Ratzan, 2006). Similarly chronic diseases are beginning to garner interest. Yet one of the bottlenecks hindering success is the lack of information. The shortage is most severe in the poorest countries in Sub-Saharan Africa (Ratzan, 2006).

Thus, increased access to healthy diet information has the potential to benefit consumers in multiple ways, including helping them make more informed decisions about health (Hibbard, & Pope, 1983). Surveys suggest that the majority of people, including those with chronic conditions, do not seek information beyond their physicians (RAND Health, 2001). Thus, there is need for further research that elucidates consumer healthy diet information seeking behaviour and decision processes. Moreover, there is a significant need to make the increasingly available healthy diet information more usable and useful to all consumers.

Studies have identified several correlates including demographics, environmental factors, and individual differences in information need that may influence consumer's likelihood to seek healthy diet information (Baker, 1995). But, much of this research has focused on patient populations and therefore may have limited generalizability. This study however, focuses on non-patient population.

More recently, several studies have been conducted that examine consumer health information seeking behaviour on internet. Baker (1995) found that consumers seeking medical information on the internet were more likely to be health conscious, hold stronger health beliefs, and engage in health activities compared with consumers who did not search the internet. Although internet use is ever increasing, focusing on one information channel may limit our understanding of all consumers. Consumers continue to receive the majority of their health information from more traditional sources (e.g. television, doctor, books, magazines etc) and certain consumers seek their health information exclusively from traditional sources (Tu, & Hargraves, 2003). Thus, this study focuses on more sources than the internet. This is expected to widen our understanding of consumers and especially college students in Kenya.

Therefore, healthy diet is essential for human wellbeing. According to the World Bank (1996), high quality and good access to health care (including healthy diet) is one of the proudest achievements of any country. Healthcare consumes a significant share of resources and the debate over access to and the cost of quality care inspires strong emotions everywhere (Kar, Alycalay, & Alex, 2001). It is therefore necessary that the right mix of health interventions is put in place to bring about the greatest improvement in health. The World Health Organization (1998) describes health as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. Wellness is an approach to health that emphasizes the prevention of illness and prolonging of the life as opposed to emphasizing treating disease.

This study was carried out at the National Youth Service Institute of Business Studies (NYS IBS) in Nairobi. The NYS IBS was composed of multicultural populations. Recruitment to the NYS was based on district quota where each district was allotted a

specific number of recruits based on its population ratio nationally (NYS, 2007). Hence all Kenyan ethnic communities were represented at the NYS. However, when it came to the sources and perception of healthy diet, there were several interpretations based on the cultural groups.

Kar, Alycalay, and Alex (2001), proposed that there is need to effectively promote public health and reduce risk of consuming unhealthy diet. Thus, the need of partnering with individuals to enable them gain knowledge of healthy diet to avoid being a source of health risk, and also be active participants in choosing diet. This is necessary because, if the healthy diet communication is not congruent with the individual's accepted norms, the message will be lost. The strategy should be designed to use the three components of participation, partnership, and empowerment of individuals Kar et al (2001) concludes.

Empowerment entails creating a self-sustaining programme that will outline the direct assistance. Research previously carried out by Kar et al (2001), found out that involvement in social action movement, regardless of their specific goals, methods used, or outcomes, has strong empowering effects. However, the work can be both exciting and challenging. But when developed and properly implemented, health communication interventions can influence health knowledge, attitudes, awareness, norms, and values, which are instrumental to changing health behaviours to improve health and reduce both chronic and infectious diseases (Kar et al, 2010).

A point of note however, is that frequently, positive health behaviour of a group gets lost with acculturation. It is therefore essential to understand and reinforce the positive health behaviour of the group and encourage the group not to lose it through the process of acculturation. The term acculturation refers to a process in which members of one cultural group adopt the beliefs and behaviours of another group

(rice.educ, 2013). It should also be pointed out that nutrition patterns are also healthier and more balanced in some of these groups. This positive behaviour has been shown to protect the group's health according to Kar et al, (2001).

Health communication interventions with multicultural populations must; make use of available descriptive and explanatory models for planning, having a realistic understanding of the possibilities and constraints of using particular media, and incorporate specific cultural considerations in the design and implementation of the interventions according to Kar et al, (2001).

Thus, need for the evaluation of structural constraints, and considering the possibility of making a difference with health communication. This health communication might eliminate structural communication barriers that prevent good health status among multicultural groups (Kar et al, 2001). A communication intervention will be necessary in this case. A communication intervention is the process of crafting and delivering messages and strategies based on consumer research, to promote social change at individual, community, and policy levels (Piotrow et al., 1997).

A point of note is that multilevel intervention, encompassing individual and environmental levels, are more powerful and appropriate for long-term, durable changes (Tu & Hargrave, 2003). For an institution to progress, healthy eating is important. Healthy diet communication interventions are therefore necessary. These interventions serve multiple functions, including social marketing, agenda setting, and advocacy (Kar et al, 2001).

Kar et al (2001) further point out that, ten elements have been observed from research, which have proven themselves integral components in successful health communication campaigns of different types and which are key to future programmes. These include the following among others; setting the agenda and creating public

awareness, using cognitive and behavioural models thus empowering communities, conducting process and impact evaluation, and supporting health communication with professionals.

The youth sub sector and the NYS IBS in particular belong to the general economic services sector of the Kenyan economy. The sub sector has strong linkages with other sectors of the economy and contributes towards employment and wealth creation targets of the country (Ministry of Youth Affairs, 2006). In a rapidly changing global environment and social systems, the youth sub sector is an integral stakeholder in the development process. That is why the students have to be empowered to make right choices on diet, become aware of the implications of their choices on development, and to accept responsibility for the consequences of those actions. Thus there is need for an investment in building the student capacity and addressing their specific needs of health. This is important for NYS's development and the realization of the Millennium Development Goals (MDGs) by 2015 (Government of Kenya, 2008).

A healthy and vibrant NYS IBS student population is a valuable asset to the Service for both what it offers now and in the future (NYS, 2007). The NYS is charged with moulding the youth to be responsible citizens through interactive orientation, basic safety, drugs and substance abuse awareness training, coupled with the basic military drill training. The youths are taught life skills and standby as a reserve force in defense and protection of the nation including deployment in disaster operations (NYS, 2007).

The NYS students should be facilitated to know that they can influence their own lives through choices they make especially with regard to healthy diet consumption. Despite that effort, there are other challenges in the existing structures within the public sector and especially at the NYS (NYS, 2007). This is because the students

continue to experience the impact of globalization on local culture ties, and imposing sets of values which are destructive and unattainable (GoK, 2007). The students need to adjust to these challenges to harness opportunities presented for development at the Service.

Problem Statement

Healthy diet communication has become a necessary factor in modern civilizations (Choi & Kim, 2011). Increased access to healthy diet information has the potential to benefit consumers in multiple ways including helping them make more informed decision about health (Hibbard & Pope, 1983). However, people have a problem of distinguishing between valid nutrition information and misinformation leading to improper dietary decisions (Kimberley, 2006). Information sources such as social media, internet and peer influence have profound impact on how people perceive and make decisions on the diet they consume (Katz & Aspder, 1997). This is true with regard to college students.

College students are at an age where they encounter many other influencing forces that determine how they choose to direct their lifestyles (Ministry of Youth Affairs, 2006). In most cases, students utilize their peers' advice for nutrition and diet more than any other source on health related issue (Keeling, 2001). Further, recent proliferation of media channels and concomitant increase in health content, moving through those channels result in students having greater access to healthy diet information more than ever before (Banas, 2008).

This study aimed at investigating the sources of information and perception of healthy diet among the National Youth Service IBS students. At the NYS IBS, students are provided with food served at the mess (NYS, 2007). According to NYS (2007), the

food contains all the necessary food nutrients of proteins, vitamins, carbohydrates, minerals and fat. However, the students shun that food and instead opt for food from outside the mess. This behaviour is inexplicable and peculiar and calls for investigation into reasons why students avoid college food. Is this practiced because students rely on poor sources for nutritional information? What do they perceive as healthy diet?

Purpose of the Study

The study sought to find out the sources of information and perceptions of healthy diet among the National Youth Service Institute of Business Studies students.

Research Objectives

This research was guided by the following objectives;

1. To identify the sources the students rely on for nutritional information.
2. To examine the students' perception of a healthy diet.
3. To establish why students avoid the diet served at the mess and opt for foods from outside the mess.

Research Questions

This study was guided by the following research questions;

1. What sources do the NYS IBS students rely on for nutritional information?
2. What are the students' perceptions of a healthy diet?
3. Why do students avoid mess food and opt for foods from outside the mess?

Significance of Study

The results from this study will significantly help in addressing diet related health problems at the NYS IBS College. Information on students' sources of information and perception of healthy diet was generated. The results will help the NYS administration to address the problem of NYS IBS students' food choice. This will therefore help the Service to present information regarding healthy diet to students in forms that would be appealing to them in order to be more informed and persuaded about the benefits of healthy eating habits. This will enable the Service to have healthy Service personnel.

The study contributed information which will aid in planning for purposes of communicating a bout healthy diet to students. Thus help students consume healthy diet to promote physical health. This will lead to physically healthy and strong students. It will translate to low rates of morbidity hence; lower expenditure on medical services. This will free funds for NYS's development. The study provided useful insights on student's socialization on food matters. It provided data which is likely to persuade the Service to restructure health spending towards preventive rather than curative approach.

Justification of the Study

The health sector is consuming a lot of resources in many countries worldwide (Kowalski, 1987). Many of these countries are doing everything possible to reduce expenditure on health and medical care. Because health care consumes a lot of economic resources, there is need to reduce this expenditure, prevent, and educate citizens from going down with disease (DGAC, 2010). This is necessary because poor health imposes a heavy burden on society and slows down economic growth.

The NYS was expected to play a crucial role in development. To achieve economic growth, the healthy diet communication plays a critical role in maintaining a healthy working population for the increased labour needs (Government of Kenya, 2007). In the developing world, research data on healthy diet communication is limited and less convincing and thus need for more research (Kimberley, 2006). We not aware of any study which had been carried out at the NYS IBS related to the sources of information and perception of healthy diet among the students.

Scope of the Study

NYS had a total of 16 schools spread across the country. There were two institutes at the NYS, all of which are based in Nairobi; the institutes are the NYS IBS and the NYS Engineering Institute. The majority of NYS colleges offered courses at artisan and craft levels. The core function of NYS is to train, impart skills, knowledge, and the right attitudes, and empower the youth of Kenya (NYS, 2007). The targeted population for the study was the 700 students of NYS IBS in session in the year 2013/2014. The generalizations of this study are therefore limited to NYS IBS. The results of this study may not therefore be extrapolated to other NYS schools and stations.

Limitations and Delimitations of the Study

The study was limited to students in session in 2013/2014 at the NYS Institute of Business Studies. The findings of this study pertained to the students in session. However, a general trend was observed and conclusions drawn. The study was carried

out at the NYS Institute of Business Studies. The generalizations of findings are limited to this institution. They cannot be generalized to other NYS institutions.

Assumptions of the Study

The study assumed that the NYS IBS students would be cooperative and fill the questionnaires accordingly. Secondly, it was assumed that the Heads of Departments at NYS IBS would release the students at the agreed time to participate in the research. Thirdly, it was assumed that all the respondents would give honest information concerning their sources of information and perception of healthy diet.

Operational Definition of Key Terms

Foods from Outside Mess: These are foods not prepared in the mess.

Health: As defined by World Health Organization (1998); is a state of complete physical, mental and social wellbeing and not merely absence of infirmity. This definition will be adopted for this study.

Health Communication: Encompasses the study and use of communication strategies to inform and influence individual decisions that enhance health. (Boston University, 2013). This definition will be adopted for this study.

Healthy Diet: Is one which supplies energy and contains required amount of essential nutrients that is protein, carbohydrates, fat, vitamins, (Kowalski, 1987). This definition will be adopted for this study.

Mess Food: Include all foods provided by NYS.

Nutritional Information: This is information regarding nutrition availed individual to enable make an informed decision.

Perception: As defined by Tubbs and Moss (1974); is an active process in which the receiver selects, organizes and interprets what he/she experiences. This definition will be adopted for this study.

Sources of Information – This is a person, thing, or activity from which information about healthy diet is obtained. This definition will be adopted in this study.

Summary

In this chapter, the following has been presented; the introduction and background to the study. The problem statement has also been presented, and the research questions. This is followed by presentation of the significance, justification, scope, limitations and delimitations, assumptions, and definition of key terms. In chapter two, the review of literature relevant to the study is presented under various headings. In the next chapter, the study methodology is discussed. In the subsequent chapters, findings, are presented and conclusions drawn.

CHAPTER TWO

Introduction

Human beings move through various growth and developmental stages ranging from conception to death. Two of the critical stages are adolescence and young adulthood. The two stages are marked by high incidence of risky behaviour. Individuals in these age groups are at elevated information risk of consuming unhealthy food (Afifi & Weiner, 2004). This is the case especially with college students. In many years scholars have contested the main stream assumption that social influence is asymmetrical, and there has been much research examining minority influence (Vanswol & Seinfeld, 2006). However, much of this research has not examined actual healthy diet communication in freely interacting groups containing minority and majority. Consequently, researchers have stressed the importance of more minority influence research examining communication (Vanswol & Seinfeld, 2006). Communication is responsive to and regulated not only by goals, but also by constraints. Constraints are on going regulators of behaviour, which can relate to internal and external factors like knowledge on healthy diet, self esteem, and interpersonal environment. There is a paucity of studies in communication literature that examine the external factors that shape their interactions. However, these are on interaction with patients.

To identify relevant factors that may influence the communication behaviour in healthy diet, I will partly lend from theories that are generally applied to the explanation and change of habitual health related behaviours and health education like Theory of Reasoned Action and Theory of Planned Behaviour. These theories address the interaction between individuals and their environments. They can be used to explain communication behaviour and developing healthy eating habits. In both

theories intention to perform the required behaviour is a central concept to explain behaviour and behaviour change. This behaviour is explained by three main determinants: attitudes, social norms, and self efficacy. Beyond these variables other contextual factors should be taken into account to explain the communication behaviour of students and their perception of healthy diet. In our model student variable like gender, year of study, family, culture, religion, peer pressure, high school years, and society are categorized as determinants of the goals and problems to be solved in the communication process. This has been presented in the conceptual model. The other theory is the theory of motivated information management (TMIM). The theory of motivated information management is a new framework that management efforts accounts for active information management efforts and is focused on information occurring through interpersonal channels. As such, it is ideally suited to examine the management decisions that individuals make regarding healthy diet (Afifi & Weiner, 2004). The theory shares important links with efficacy Theory (Bandura, 1997), and the comprehensive model of information seeking (Afifi & Weiner, 2004). Among the contributions that it brings is a detailed accounting of the decision making process and analysis played by providers. According to Afifi and Weiner (2004), TMIM proposes that information management decision be generally captured through a three phase process presented by interpretation, evaluation, and decision steps.

The interpretation involves the individual's awareness of a discrepancy between the amount of uncertainty they desire about an issue and the amount they currently have about that issue. The TMIM contends that this awareness then leads to anxiety about uncertainty discrepancy.

The TMIM proposes that the experience of anxiety influences, and is followed by, an evaluation phase. This phase involves assessing the expected outcomes of an information search (outcome assessment) and the perceived ability to gain sought after information (efficacy assessments). These assessments are sought to mediate the effect of anxiety on information management decisions (Afifi & Weiner, 2004).

Sources of Nutritional Information

Information seeking is emerging as an important topic of communication scholarship as evidenced, for example, by a special issue devoted to this topic by Human Communication Research Journal volume 28(2) in 2002. Health communication scholars are asking questions about the role that individual's information seeking behaviours play in the overall health and well being (Brasher, Goldsmith, & Hsieh, 2002). How interventions can motivate individuals to seek information on their own and the extent to which information seeking is a demonstration of individual autonomy (Dutta-Bergman, 2005). People may seek information to understand healthy diet, decide on diet, or help prevention decisions (Brasher et al., 2002).

As Brasher et al (2002) note, it is important to determine if information seeking (and avoiding) is a function of ability or of motivation. If individuals are both able and motivated, they may seek more information, but seeking and consuming more information do not necessarily lead to information decision making, especially if information seeking occurs under conditions of perceived risk. One of the frameworks that make specific predictions about information seeking behaviour is the risk perception attitude (RPA). RPA framework (Rimal & Real, 2003) posits that the

effects of risk perceptions have to be considered in the context of individuals' efficacy beliefs.

Knowledge Base Relating to Dietary Plan

One of the components in health communication is the lifestyle of individuals. Lifestyle is very important in determining well being. The lifestyle field is related to health-risking behaviour over which humans have control. This includes such issues as dietary choice. It is necessary to make lifestyle as important as other more common fields relating to healthcare. This offers an opportunity to question health risk thus giving planners the ability to focus directly on more relevant policies that will ameliorate the problem (Wood, 2007). There is a need for a new public health paradigm, one that combines, traditional with modern techniques. Thus recognizing cultural buffers and using them in modern ways. The new model should include three major components; recognition and regard for modern preventive care of all forms, use of traditional communication systems, and use of modern technological advances to dispense health-related information (Wood, 2007).

According to Koontz and Wehrich (1988), the current age is an information age. Information and knowledge are mighty sources of power and a lot of resources are expended on gathering, managing, and disseminating information. Without communication, information is dead, and it is therefore the process of communication that breathes life into it. Administrators should seek to communicate within the latitude of acceptance and avoid the latitude of rejection (Koontz & Weinrich, 1988),

There are other challenges in the communication process. People have a problem of distinguishing between valid nutrition information and misinformation (Banas, 2008). According to DGAC (2010), these improper dietary habits are one of the causes of 700,000 deaths annually in the USA. Other causes include tobacco use, sedentary lifestyles and excessive consumption of alcohol.

In Kenya, there is a change in socializing of children as opposed to the traditional set up. This is because initially socialization in the traditional setup was done by parents and grandparents (Kenyatta, 1938). At NYS students come from all sorts of backgrounds. Given the diversity of backgrounds of the students at NYS IBS, when it comes to healthy diet information/communication, there could be those who are rich and those who are poor (Brenda, 1980). It is possible that in as far as healthy diet communication is concerned; there could be uneven distribution of information and communication.

For the NYS, this is crucial because the Service is required by law to employ its members in tasks of national importance or service of the nation (NYS, 2007). Being a reserve force of the Kenya Defense Forces, the students receive appropriate paramilitary training in readiness to serve with the forces and other security organs of state when called upon. But there are many challenges facing the Service (NYS, 2007).

Accordingly, ten elements have been observed from research, which have proven themselves integral components in successful health communication campaigns of different types and which are key to future programmes (Kar, Alcalay, & Alex, 2001). These elements are very relevant to the current study in many ways. The first element is performing interpersonal communication. At the Service the students are under command of Commandant, Company Commanders and Messing Officers. All these

officers in one way or the other have a bearing on diet served at the mess. The students rely on them for guidance on many matters pertaining to healthy diet. They all form important resource persons.

The second element is the Setting of the agenda, and creating public awareness. Given that Service students spend a lot of their time at NYS, the command plays a major role in creating positive perceptions about mess food. Given that the students share information on healthy diet among themselves, the command can use this to set the agenda. This is followed by modeling.

Using cognitive and behavioural modeling, the Service can depict messages on nutrition in forms acceptable to students. Thus theories such as Health Belief Model can provide insight into designing an effective programme. These models should include social support to students.

Providing social support is an important ingredient in healthy diet communication. This model is to be based on the individual as the unit of analysis. It facilitates the understanding of how the psychological process of change occurs in the individual and helps in identifying the variables involved. Once that is done, any students conforming and eating mess food will be congratulated.

Whereas it is true that NYS students are under command, they ought not to be frightened through forceful command. Reinforcing positive changes by giving instructions on how to change their behaviour rather than frightening them regarding the dangers of consuming unhealthy foods will be in order.

Advocating policy and service reforms is important in any organization. For example, a person's intention to eat healthy diet will depend on his personal belief about the relative costs and benefits of engaging in such behaviour, plus the individual's perception of how others in his community of reference feel about healthy diet

consumption. For the behaviour change to occur, the individual needs to feel confident that he has the necessary skills to implement the new behaviour. This can be achieved by practicing social marketing and mobilization with health promotion concepts, services, products, programmes, and practices. This can be achieved by empowering the NYS IBS community and more so the students. This can be achieved by doing regular evaluation of services offered at the mess.

This will determine the overall methodological effectiveness and long term impact of healthy diet consumption promotion programme. Thus need to work with health professionals. Supporting health communication with professionals is essential because students are likely to trust them.

Young people stand to benefit from programmes that engage them in their own experiments. This could include an issue such as healthy diet communication. It has been suggested that the students should be helped to reduce calories, eat more fruits and vegetables, and reduce fat in their diets. The likely benefits of eating fruits and vegetables include lowered risk of dental cavities, eating disorders, constipation, malnutrition and iron deficiency anemia (Kowalski, 1987). A growing body of research shows that the fruits and vegetables are critical in promoting good health. The fruits and vegetables are said to contain essential vitamins, minerals and fibre that may help protect one from chronic diseases (Kowalski, 1987).

Scientific research has also confirmed that a vegetarian diet is healthier than a diet high in meat, full of saturated fat. The Adventist Health Study conducted by Loma Linda University (SDA, 2010), compared church members in USA who shared similar demographics and lifestyles except for two different categories of diet. When those who ate alacto-ovo-vegetarian diet (plant food plus eggs and milk) were compared to omnivores who included red and white meats, in their diet, the

vegetarians had less heart disease, fewer types of cancers, less hypertension, less diabetes, less dementia and less osteoporosis – leading to an increased life expectancy. Other studies done in Europe, Australia and South America confirm these findings (Kar et al., 2001). However, not much research has been carried out in the developing world. More research should be undertaken in the developing world especially in Africa (Kar et al., 2001).

According to Wanja (2011), it appears that the students in Kenya are aping the West in many ways and abandoning African culture. Nowhere is this more evident than in the diet they consume. Unfortunately some of the diet the students in Kenya have picked up is more harmful than useful to their health. Hence parents and especially those holding professional jobs, devote so much time to their work that they have little time for domestic issues such as preparing a well balanced healthy meal. Instead they order a pizza, chicken and burgers or chips from the nearest fast food outlet. Thus, we are living in a global economic system whose main guiding principle is competition, greed and gambling. Manufacturers and marketers could use all tactics to sell their merchandise (Wanja, 2011).

Research has documented facts about eating habits of college students. The young students' eating habits have been patterned in Western models as a result of changes in social structures in society (Mugambi, 2011). However, there is need that the students are sensitized about the eating habits which could be hazardous to their health. This is because students' values and beliefs appear to be artificially shaped and crafted by marketing companies (Kimberley, 2006).

The most common resolution during New Year world over has been probably to lose weight, join the gym, and watch what we eat. We should step back from modernity to the good old nutrients from traditional foods, and methods of cooking. Thus,

consumption of fermented foods, traditional vegetables like pumpkin leaves, *managu*, *kunde*, *terere*, (These are traditional Kenyan green vegetables) and others that is widely and cheaply available (Wanja, 2011). We should consume wholesome food, as opposed to unhealthy foods, alcohol, and sugar, and thus saving money likely to be spent on medicare as a consequence of ill health (Kowalski, 1987). The weight associated with the “greatest longevity tend to be below the average weight of the population” (Kowalski, p77, 1987). The evidence has been building for a long time that overweight people tends to die sooner than persons of average weight. Research estimates are that half the medical problems seen in overweight people are obesity related. Thus obesity is a killer (Kowalski, 1987).

According to RAND Health (2001), unlike the public health campaign against tobacco use, measures to positively influence diet have not seen the same success. Christakis and Fowler (2007) suggested that social acceptance may be the medium by which obesity is transmitted. They found out that weight gain among close, same-sex friends- those whom an individual identifies with most- drastically increased the likelihood of weight gain in oneself.

Although many competitive programmes exist which can tackle behavioural disease determinants, weak health literacy skills are major obstacle (Institute of Medicine, 2004). Strengthening literacy and overcoming obstacles require formative research that identifies how different groups receive healthy diet and where obstacles to action exist (Institute of Medicine, 2004).

Health Lobby groups have responded to the increase in obesity levels by calling on governments to take urgent steps to prevent further escalations in the proportion of obese individuals (Fight the Obesity Epidemic, 2004). In New Zealand, health groups such as Fight the Obesity Epidemic (FOE) lobbied strongly for a ban on advertising of

all fast food items during children's TV programme, among other measures. Most if not all, people could take actions to improve individual health. However, much individual behaviour and decision making takes place at an unconscious level, hardwired in human brain (Eagleman, 2011). Further brain reward system overestimate the positive gain from many ingested substances (Horn, 2008). The pervasive unhealthy behaviours that persist are those that tap into these reward systems, stressing the need for counterbalancing incentives at conscious or unconscious level, including for example, classes of conceptual consumption, which can affect physical consumption (Ariely & Norton, 2009).

Nutritional information is necessary to ensure consumption of the right foods that are lower in calories and especially lower in fat content. People do not have to become nutritionists in order to select foods (Kowalski, 1987). Thus, according to Kowalski (1987) what everyone does need, however, is an understanding of the basic principles that should affect food choices. This is particularly true when we make a concerted effort to alter the diet, for instance to reduce the amount of fat and cholesterol we plan to eat.

Nutrition is the process by which food and everything else we consume becomes a part of our bodies and affects our total health and growth (Kowalski, 1987). Food allows us to function. However, food consists of various chemicals working together in interaction with the chemicals in our bodies. As a broad classification, there are six classes of nutrients: Proteins, carbohydrates, fat, vitamins, minerals, and water. Each of these has its own function but many of them work together (Kowalski, 1987).

Within this broad classification of six, there are about fifty specific nutrients. However, nutritionists have designated just ten as what they call "leader" nutrients. These are proteins, carbohydrates, fat, vitamin A, vitamin C, thiamin, riboflavin,

niacin, calcium, and iron. Once one consumes those nutrients in sufficient amounts, the foods containing them will also provide the other forty (Kowalski, 1987).

According to the Citizen Television health talk (2012), Supermarket snacks and juices are flavoured. Food flavours have become common but the foods are harmful. Consumers are hooked to flavoured foods. This view is supported by Kowalski (1987), who points out that experts caution that some flavours are artificial and have certain chemical compounds which are likely to be detrimental to health. However, there are natural flavours. Natural flavours come from plant and food materials. Experts advise that we should limit intake of flavoured foods. There are standards and limits set by Kenya Bureau of Standards. The standards show how much flavours have a negative side effect on health. However, there appears a difference in perceptions and frames of reference regarding the negative effects of flavours on human health.

Another major area of concern about unhealthy food is its relationship with cardiovascular disease. Cardiovascular has been considered a disease of the old age in America and the developed world (Mahal, Koran, & Engelgar, 2010). However, the prevalence of coronary heart disease is now increasing in younger age groups. This is associated with smoking, high blood pressure, and is a result of blood fats coming into being (Mahal et al, 2010). Unhealthy foods lead to weight gain and subsequently to obesity. Once many students become obese, they will choose to diet in order to lose excess weight. Such students, who choose to lose weight, will end up gaining it back once they come off diet. The danger is that it can also omit certain food items that are vital to the body in the long run. Accordingly, this may not be healthy to the body during and after the diet period. However, instead of dieting students should review and change their lifestyle (Kowalski, 1987).

Another common lifestyle among students is snacking. If left unchecked snacking can be a health hazard if the snacks constitute of unhealthy diet (Kowalski, 1987). However, it should be done in a healthy way. For example according to Wanja (2011) eat a fruit instead of chips, cookies, cakes, *samosa* or *mandazi* (they are deep fried buns made from wheat flower dough). This concept should be encouraged so as to eat green vegetables because they are rich in nutrients that are essential for health. The vegetables also have a cleansing effect on bodies because of their alkaline PH. The wholesome grains have health benefits for the body. These are high in fibre and provide energy. One should also eat omega 3 and omega 6 fats that help in providing the good HDL cholesterol health benefits. It is on this basis that we should be encouraged to combine plant and animal proteins. This can be balanced by drinking eight glasses of water per day. This replenishes the body and keeps the skin healthy (Kowalski, 1987).

In spite of all the alarming information regarding the increase in lifestyle diseases and their direct relationship to poor and unhealthy eating habits, many college students still seek foods that are high in fat and sugar. Nowadays, consumption of too much fat and sugar is getting more dangerous. The worst food you could prepare using these two substances is the food we get from fast food chains. In addition to the above diseases, a major healthy and economic threat associated with unhealthy diet is obesity (Kowalski, 1987). Obesity is a major social problem with several health (cancer and cardiovascular disease) and economic consequences (increased medical costs, reduced productivity. Like many other health issues, rates of obesity are influenced by individual behavioural decisions, individual genetic predispositions, and broader societal factors like the marketing of low-cost unhealthy foods among other factors. As a result, successful efforts to reduce obesity will require both

interventions that target individual decisions, and policy changes to modify upstream factors like environmental, social, and economic barriers (Mahal et al, 2010).

Using the Internet as a Resource

The internet users have a field of shared experience that offers one avenue to influence behaviour change. Internet uses for example, can both be the source and the receiver, however, the function of shared experience, may lead itself to the communicator, including contact with friends, family, and social group's effects. People's levels of behaviour, their sense of commitment to social norms, to their communities have an effect on group (Diener et al, 1999). The internet provides social content a cross time, distance, and personal assertiveness. It allows people to connect with distant as well as local family and friends, co-workers, business contacts, and with strangers who share similar interests, it also could facilitate the formation of new relationships (Katz & Aspder, 1997). Social identity and commitment among otherwise isolated persons (McKenna & Barg, 1998), participation in groups and organizations by distant or marginal members (Sproull & kiesler, 1991). It is clear that the internet could have important social effect on an individual. It follows then that strange social ties lead to better social outcomes (Welllman & Wortley, 1990). Such social ties could provide a strong foundation on which the process of behaviour change is built.

The internet contains a lot of information about healthy diet. However, the finding of Database of Adverse Events Related to the Internet has found out that the use of poor quality information found on the internet may lead to adverse health outcomes, including psychological and physical harm. Health advice sought includes nutrition

among others. A 2002 study in USA, found out that 73 percent of college students use the internet to locate health information (Banas, 2008).

However, the health communication that is sought out by college students occurs in the form of computer media. It has been indicated that the internet is a popular resource for acquiring nutrition information. However, there is a challenge in having nutrition information readily available. This is because both good and bad information can be found. Therefore, the consumer must have greater discernment in healthy literacy. Online health seekers must therefore develop the skills to find, retrieve, analyze, and use the health information found on the internet (Banas, 2008).

Receiving Nutrition Information from Professionals

The United States Dietetic Association (USDA), in 2005 created the sixth edition of the *Dietary Guidelines for Americans*. This 80-page document is intended to be used by policy makers, healthcare providers, nutritionists, and nutrition educators (DGAC, 2010). Healthcare professionals are trained to understand the comprehensive nature of the practices required to maintain a healthy lifestyle. Eagly (1987) found that health care experts and professionals were consulted more for health information and advice regarding general health enquiries. However, this advice, in comparison to other channels of health information, was a small percentage to other methods of health communication.

Developing Eating Habits through Peer Advice

Studies conducted by Baxter, Egber, and Ho (2008), reported that diet and nutrition was one of the top four topics of health communication comprising 23 percent of all health communication experiences. Their study also revealed that 48 percent of all health communication occurred through face-to-face contact, and of these contact 36 percent of them were friends, while 17 percent of them were peers. College students turn to healthcare professionals regarding health advice only 3 percent of the time. This study also suggest that face-to-face (42%) inquiries about diet and nutrition were slightly more likely to occur over information gathered through mass media (41%) and college students were likely to discuss diet and nutrition with their friends than any other health issue (Whitney & Rolfes 2008).

Educating college students about nutrition by showing them the food pyramids is not likely to be successful in creating proper eating habits because of the great influence of the social media, a plethora of information, and an uncertainty about their self image. College students are at an age where they encounter many other influencing forces that determine how they choose to direct their lifestyles and must assimilate a wide variety of conflicting information (Keeling, 2001).

However, college students utilize their peers' advice for nutrition and diet more than any other source on health-related issue according to Keeling (2001). Another study by Pearson, it was suggested that one factor that may play into the motivation for college students to seek nutrition and dietary advice from peers is that self perception and beliefs others have about dietary patterns strongly influence the college age population. Hence, this may to a large extent lead to a failure to adopt healthy diet consumption (Pearson, 2008).

Research has demonstrated numerous gender differences between men and women with regard to health beliefs. Women express more concern regarding health issues and possess more inflated perception (Bord & O'Connor, 1997) of risk, exhibit greater interest in health information, and see their health practitioners more often (Hibbard & Pope, 1983). None of these differences however, speak whether women's cognitive and affective perceptions of vulnerability are more coherent than those of men or whether the type of risk perception is important. Gender is considered an important moderator given that health varies by gender and given that gender is an easily attainable piece of information that can be used by a practitioner to tailor a health message (Bord & O'Connor, 1997).

According to Cox (1986), perception is the means by which information is acquired through the sense organs and transformed into experiences of objects, events, sounds, and taste. Perception differs from attitude in that while perception emphasizes the way one views the world, attitude places more emphasis on the behaviour that comes as a result of one's perception. The two terms (attitude and perception) have been used more or less interchangeably (Cox, 1986).

Research and theory regarding gender differences suggest two hypotheses. On one hand, men in Western culture tend to be more competitive than women due to differences in social roles (Eagly, 1987). Alternatively, women tend to be more communal and are more likely to discuss their feelings, concerns, and health status with other women (Aukett, Ritchie, & Mill, 1988). Consequently, women may be more aware than men of how their risk factors compared with those of their same-gender, peers, and thus greater salience of comparative risk is important in predicting healthy diet concern among women. Given that men are less likely to engage in such

discussion, it seems less likely that they would have useful comparative information with which to make a comparative risk judgment (Eagly, 1987).

According to Beaglehole, Bonita, Horton, and Adams (2011), growing evidence has shown that diseases are attributable to behavioural determinants, particularly unhealthy diet consumption. These diseases are modified by diverse factors, including environmental components and genetic predispositions as well as healthy system performance and effectiveness (World Health Organization, 2011). Moreover, WHO and other health advocacy groups cite the aggressive marketing of risky products and behaviour particularly those targeting the youth, as key factors bringing unhealthy processed foods into households worldwide (World Health Organization, 2010). Global debate on strategies for tackling these diseases has intensified (Beaglehole et al, 2011). Thus, given that non communicable diseases (NCDs) are profoundly rooted in social and community ties, there is need of a marked strengthening of communication capacities to address the socially communicated reality of these public health threats (Beaglehole, et al., 2011)

A group of researchers have documented this phenomenon on cooperative social behaviour (Beaglehole et al, 2011). Their conclusions indicate that physical and mental health is strongly influenced by social forces, and that healthy and unhealthy behaviour spread contagiously in large social groups.

Thus, modern research has shown perception to be a complex process. It is influenced by a number of psychological factors, including assumptions based on past experiences, cultural expectations, motivation, moods, and attitudes (Severin & Tankard, 2006). The subject's perception is shaped by their own culture rather than an unfamiliar culture. Attitudes are important in many areas that people are concerned about, including health practices. The attitudes are said to have three components; an

affective component; a cognitive component; and a behavioural component. Hence, in the communication process, perception is very important (Severin & Tankard, 2006).

However, without the requisite tools of communication, it would be usually impossible for human beings to carry out organized group activities (Nalova, 2001). But there is no single satisfactory definition of communication (Littlejohn, 1989). Most scholars however, agree that human communication is largely an interaction process involving many elements that are interrelated (Hesselgrave, 1991). One of the variables in a communication situation is the perception as already cited. Thus, Judging from many day to day examples of communication campaigns, there appears to be a widespread belief that having the right source and perception can increase effectiveness of a message (Severin & Tankard, 2006).

Concept Of and Factors That Influence Perception

For most people, the news media are either most important and consistent health information source (Combs & Slovic, 1979). When it comes to increasing awareness and knowledge of health issues, news media are possibly even more important than interpersonal communication (Fishman, 2006). There is evidence that people's perceptions of risk are subject to large and systematic biases. These misconceptions influence the way that people think about, and respond to hazards in their personal lives (Combs & Slovic, 1979). Thus, it is important to learn about the student's sources of information and perception of healthy diet.

However, an important factor in perception is the family. The idea that families are situated in social and historical context is not new (Boris & Lewis, 2006), but research

at the intersection of families and institutions, particularly with regard to family and working life, has grown rapidly in the last two decades (Pitt-Catsouphes, Kossek, & Sweet, 2006). Researches note that increased lifespan, and attendant eldercare issues, changes in our own expectations of parenthood, and reduced support structures within the community have fundamentally changed the experience of family life (Boris & Lewis, 2006). Shifting the primary focus from families to work places, have taken on family-like roles and thereby by developing programmes to promote employee health/wellness and spirituality (Boris & Lewis, 2006).

However, one of the studies carried out regarding perceptions was by Tubbs and Moss in 1974. It indicated that what anything means to us depends on the aspects we notice and our organization and interpretation of those aspects. This study highlighted an important issue that, the way we receive others, depends on and determines the kind of communication that takes place between us. This implies that perceptions are contextual and hence perceptions held towards an issue will differ depending on the specific situation or context (Tubbs & Moss, 1974).

Wood (2007) identified three elements of perception; the perceiver, the object, and the context within which the perception occurs. This indicates that the way in which we perceive things depends on our awareness of the world around us. Therefore, perceptions do not just occur. Their formation is driven by various factors. Several factors influence perceptions. These are: physiological, wealth of experiences, culture, cognitive abilities, and the self. Examples of physiological abilities include being stressed, tired, or being angry. Culture also affects our perceptions. Culture is the totality of beliefs, values, understandings, practices, and ways of interpreting experiences of people. Culture forms the pattern of our lives and how we think, feel, and communicate (Wood, 2007).

Theoretical Framework

This study was based on the theory of planned behavior that was developed and modified from reasoned action theory (Ajzen, 1998). Health behaviour theory supports the use of media literacy to prevent harmful health behaviours such as consuming unhealthy diet. Theory of Reasoned Action is a well accepted, broadly applied theory of health behaviour that has been used to predict a variety of healthy behaviours. It has in particular, accurately predicted adolescent smoking (Ajzen & Fishbein, 1980). According to TRA, an individual's behaviour (such as eating unhealthy diet) is determined by his or her *intention* to perform the behaviour, which in turn predicted by his/her *attitude* toward the behaviour and sense of *normative beliefs* regarding it (Ajzen & Fishbein, 1980). According to theory of reasoned action, performance of a given behaviour is primarily determined by the strength of a person's intention to perform that behaviour. The intention to perform a given behaviour is in turn, viewed as a function of two factors, namely the person's attitude toward performing the behaviour (i.e., one's overall positive or negative feeling about performing the behaviour) and/or the person's subjective norm concerning the behaviour (i.e., the person's perception that his or her important others think that he/she should or should not perform the behaviour). Attitudes are a function of behavioural belief (i.e., beliefs that performing the behaviour will lead to certain outcomes) and their evaluative aspects (i.e., the evaluation of those outcomes), subjective norms are viewed as a function of normative beliefs (i.e., beliefs that a specific individual or group has regarding whether one should or should not perform the said behaviour in question) and motivations to comply (i.e., the degree to which, in general, one wants to do what the referent think one should do). This model may be useful particularly with regard to media literacy because of the potential for media

literacy to buffer the impact of mass media message on attitudes and normative beliefs (figure 1).

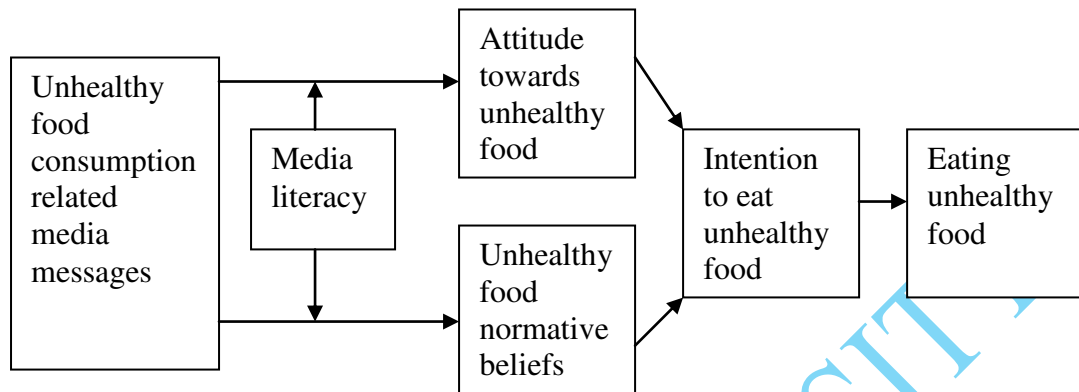


Figure 2.1: Adapted from Ajzen & Fishbein, 1980. Media literacy potential ability to buffer the influences of eating unhealthy food related media messages

With regard to attitudes, media literacy teaches analysis skills that help participants separate how products such as unhealthy food are represented in media for their true effects. This may buffer influence of those media messages on product attitudes. Similarly, mass media produces often use of techniques such as bandwagoning, testimonials, and targeted concentration to make certain habits and lifestyles seem more normal. Media literacy corrects these misconceptions by exposing the techniques used to make behaviours seem more normative and emphasizing the reality of the situation. Studies support these theoretical relationships. The American Legacy Foundation's "TRUTH" campaigns are well known programmes that successfully reduced smoking among youth and to deconstruct the manipulative promotion messages of the industry (Hicks, 2001).

According to this theory, the major determinants of behaviour are one's attitude toward performing the said behaviour, subjective norms attached to the behaviour, and finally the perceived behaviour control. The theory is built on the assumption that human beings are

rational and make systematic use of information available to them. People consider the implications of their actions before they decide to engage or not to in certain behaviour (Godin & Kok, 1996). The theory puts emphasis on the third factor, perceived behaviour power, which includes external factors like opportunities and cooperation from others in order for one to perform the said behaviour. It tries to assess the extent to which the target audiences possess the information needed to carry out a promoted action, the skills, resources, and opportunity to act. This theory is very relevant to this study because of the central role it assigns information in the persuasion process. To change behaviour, one should start by changing a person's belief. This theory helps explain why attitudes do not always predict behaviour. This is because, other factors like normative pressure and beliefs regarding the consequences of behaviour will affect the performance of any specific behaviour. However the theory faces some limitations. For instance factors such as demographics and personality are not in the model. The theory assumes people are rational and make systematic decision based on available information. It ignores unconscious motives.

Conceptual Framework

The conceptual framework illustrates that the student's sources of information and perception of healthy diet is a function of the environment. It depends on the input from the students' environment. This is reflected in the student's perception. Accordingly, the individual student has an input on the perception process. Thus, the student relies on the wider Society, School, Clubs, and the family for nutritional information. Hence student's perception is shaped by peers, culture, ethnicity, family, background, experience, moral values, abilities, talents, and personal giftedness. In short the background and immediate environment help shape the student's perception of healthy diet. This is supplemented by the individual student traits. Depending on all the input from the environment, the student develops either a positive or negative perception of healthy diet (figure 2.2).

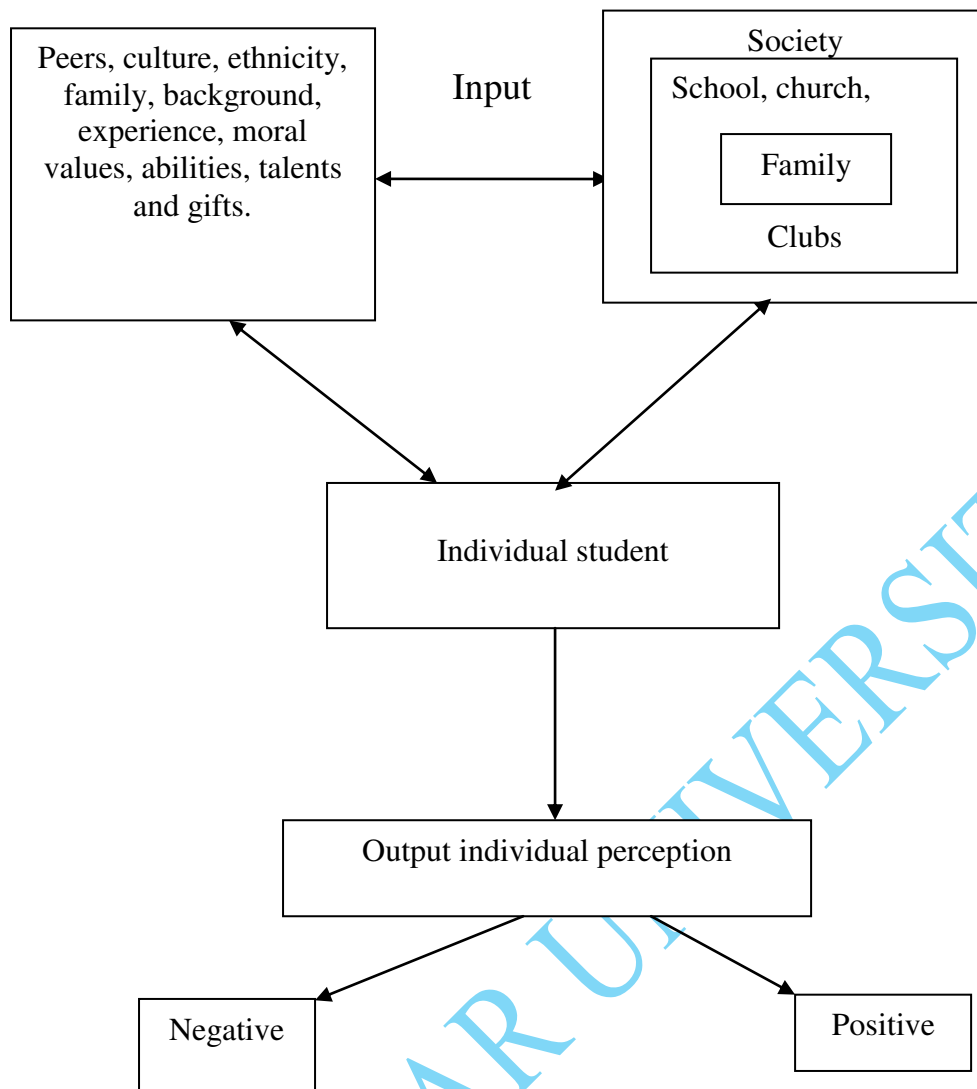


Fig 2.2: *Conceptual Framework, Adapted from: Ajzen (2013)*

Implications for NYS IBS

The area of coverage was the NYS IBS in Nairobi. The NYS from its time of inception in 1964 to date, has provided training to youth that has changed from on the job training in basic technical skills in the 1960's - 70's to more advanced technical training at craft, diploma and higher diploma levels (NYS ,2007). The NYS IBS was started as a typing school in 1973 with a total of thirty students. In 1988, it became NYS Secretarial School. It was merged with the Kenya Government Secretarial

College to become NYS Secretarial College. In 2002, the college introduced more courses in business. In view of the diversified curriculum, the school was renamed NYS IBS (NYS, 2007).

At the NYS IBS, the students embrace all sorts of foods. According to the Government of Kenya (2009), this appears to be a function of generally bad dietary habits and poor nutritional knowledge among the Kenyan youth. This could pose a health threat to their bodies. The NYS IBS students are part of the Kenyan youth. Thus there is need for an assessment of the students' sources of information and perception of healthy diet.

This will help create informed NYS IBS students on need for consumption of healthy diet. This is necessary for purposes of promoting healthy individuals for the Service's development. These students belong to families. According to Kenyatta (1938), the family in traditional set up imparted the right skills, knowledge, and attitudes. These enabled children to grow into maturity and responsible adults. However, nowadays a number of children are seldom taught even seemingly mundane tasks like cooking a healthy diet according to Nguiri (2008). The young professional mother has no time for that (Nguiri, 2008). On the other hand, the families tend to share a lot of things, like physical appearance, the environment, and genes. Because of these shared genetic traits, certain diseases also tend to travel through successive generations of the same family. The difference in disease travel can only come from individual lifestyle habits, which can affect their health now and in the future (Kowalski, 1987).

However, once the students understand their own family history of disease for instance diabetes, stroke, heart attack, arthritis and several other forms of cancer, it could be a direct indicator of their own chances of facing similar health challenges in their life time. The students can therefore take the steps necessary to help keep

themselves from going down the same road. This is because; to be forewarned is to be forearmed. This should be a cause of concern for the Service given observations from other parts of the world.

Studies in war-time Europe, where food rationing was the norm, show that general health of the population improves where the diet was restricted and fairly basic. When rationing ceased and a wider variety of food-stuff was available (either natural or processed) good health started to decline. As people ate more indiscriminately the disease statistics reflected the change in lifestyle. Cancers and heart disease and other degenerative conditions leapt to the top list of causes of death and long term ill health. Where there is economic growth and adoption of Western style of living, the disease of the affluence appear to follow. For example, breast and colon cancer rates remain low in countries where the diet is basic and the fat intake is limited. The role of lifestyle in determining our actual health status is increasingly becoming important (Kowalski, 1987).

Current research shows that in all causes of death, four factors are outstanding. The lifestyle is the leading factor, accounting for fifty-three per cent. The other factors are environmental (10 per cent), hereditary (16 per cent), and healthcare (10 per cent) (Willis 2001). We can therefore conclude that 73 per cent of factors contributing to death lie within our ability to change for the better.

Hence, there are lessons to be learnt from the rest of the global village. Consumption of unhealthy diet leads to non infectious disease. Mugambi (2011) asserts that the prevalence of non-infectious diseases in Kenya ranges between 2.7 per cent in rural groups to 10.7 per cent in urban areas. In 2003, a survey by the Ministry of Health (Mugambi, 2011), indicated that these diseases contributed to 53 per cent of hospital admissions, while WHO (2006), reports that these diseases cause 60 per cent of all

deaths world wide. However, it should be pointed out that most of these diseases are preventable through healthy eating. It is more difficult and more costly to regain full health once chronic illnesses have set in as irreversible cellular changes may have already taken place (Mugambi, 2011). It is these processes that progress to illnesses such as cancers. Proper healthy nutrition information is therefore a key element in leading a healthy lifestyle. Thus, a balanced healthy diet composed of diverse foods is the key to promoting good health (Mugambi, 2011).

Hence, need to have properly informed NYS IBS students. According to Rodney (1989), the idea of development, what it consists of, how it can be made manifest and for what purposes, must be planted in the hearts of people. In other words, development and social change must start from individuals who successfully transform themselves to make social change self sustaining. Hence, the idea of healthy diet communication is crucial in the institution's growth and development as it can be attested from the analysis.

The current situation in Kenya can be traced back to the colonial era. Colonialism in Kenya made Africans move away from the setting of indigenous cultural goals and standards, and they lost full command of training young members of society. During colonial period, agricultural production was skewed in favour of the growth of cash crops for export as opposed to growing food crops and especially staple foods. Even the transport system was built to link the highlands to the coast for purposes of transporting cash crops to the foreign countries. Hence according to a study by Joshua de Castro, African diet was previously more varied, being based on a more diversified agriculture than was under colonialism. The most striking indications of the superiority of indigenous African diet according to the study, was the magnificent

conditions of African teeth (Rodney, 1989). Research has documented that individuals are contracting disease as a result of consuming unhealthy diet.

In Kenya, data from the Ministry of Health shows that NCDs such as cancer, diabetes, and chronic respiratory disease, heart disease, and kidney failure, neurological and psychiatric conditions have become major causes of death. Report indicates that 81,000 cases of cancer are diagnosed annually in Kenya, resulting in 18,000 deaths according to Mucheke (2012). Although cancer is curable, medical evidence shows that 40 per cent of cancers are preventable. This is because factors that contribute to NCDs are within the behavioural control of individuals. For instance high salt intake is associated with hypertension; while increased body weight is associated with poor diet. Health problems require a preventive approach instead of curative. The explosion of NCDs is an indicator of a population undergoing what is referred to as epidemiological transition. This is a shift from infectious to non-infectious diseases. This requires both short-term and long-term planning on the part of health providers. Thus, there is need to emphasize preventive medicine through public health approaches without compromising curative health. Hence, a need for additional investment in public health research with a view to strengthening preventive healthcare and support new strategies for addressing NCDs. To advance healthier public policies and create a health supporting environment, there is need to build greater awareness about the tremendous impact of healthy diet consumption on individuals (Mucheke, 2012). This is because unhealthy food may result in premature death and disability, lost productivity, and rising health care costs, among other negative consequences (Roses, 2011).

Various social behaviour theories have guided multicultural health communication interventions. For instance, according to the social-learning theory, human behaviour

is explained as an interaction between the individual characteristics, environmental influences, and behaviour. A basic premise is that people learn not only from their own experiences but also by observing the actions of others and the results of those actions (Nalova, 2001). This theory explains both human behaviour and strategies to promote behavioural change. It supports the notion that media can have an effect by showing characters, modeling desired and undesired behaviours, and showing the positive consequences that result from the adoption of desired behaviour. By modeling desired new behaviour and showing positive consequences of adopting such new behaviour, people are persuaded (Roses, 2011). Thus, people learn by observing how to perform the desired health behaviour, and then adopt it.

Summary

In this chapter, the following has been presented; the introduction and presentation of literature review. In chapter three is presented the research methodology. In the next chapters, the study findings are presented, analyzed, conclusions drawn and recommendations made.

CHAPTER THREE

Research Methodology

Introduction

The purpose of the study was to identify the sources by which NYS IBS students received nutritional information and what they believed to be a healthy diet based on their source of information. This chapter lays out a methodology for collection of data to answer the research questions posed in chapter one. In the methodology, the various steps that were generally adopted by a researcher in studying his research problem along with the logic behind them were presented according to Kothari (1990). This chapter discusses the following research elements as were used in the study; research design, population, sample size and the sampling procedures, data collection instruments, data collection, reliability of instruments, validity of instruments, data analysis, and ethical considerations.

Research Design

A research design is the manner in which a researcher goes about collecting and analyzing data to achieve research objectives. The design is the conceptual structure within which research is conducted. It constitutes the blue print for collection, measurement of, and the data analysis. The design is a means to achieve the research objectives through empirical evidence that is acquired economically (Chandran, 2004).

The study was a survey. In survey design, data is gathered from a cross-section or sample population being studied. From the sample, the study was able to get quantitative data (Singleton & Strait, 1993). Survey studies are conducted to describe the nature of existing conditions and identify standards against which conditions can

be compared, or to determine relations that exist between specific events (Cohen & Manion, 1998).

This is an effective design for social science. It was chosen because it is an effective method of collecting descriptive data of a population that was not possible to observe directly. It presents a problem to describe a given state of characteristics, behaviour, and attitudes that are relevant to the study. Hence, surveys are concerned with describing, recording, analyzing, and interpreting conditions that either exist or existed. Survey design is objective in that there is no manipulation of the variables or arranging for events to happen. Surveys are concerned with opinions that are held, or trends that are developing. Hence, surveys are appropriate in social and behavioural sciences (Kothari, 1990). Surveys constitute field research (Mugenda & Mugenda, 2003).

Population

Babbie (1998) defines population as that group about whom we want to draw conclusions. As it may not be possible to access the entire population for a survey because of limitation of resources, it is important that the researcher selects a given number of members or cases from the accessible population. These cases selected from the population are a sample. The population for this study was the NYS Institute of Business Studies' students. The target population was the 700 NYS IBS students in session during the academic year 2013/2014.

Sample Size and Sampling Procedures

According to Wimmer and Dominic (1991), a sample is a subset of the population that is taken to be representative of the entire 700 student population. The sample for

this study was 210. 210 constituted 30 percent of the total student population. Using the rule of thumb this research took as big a sample as possible. Ideally for surveys, ten percent of the population is adequate for sampling. Generally sample size depends on factors such as; the number of variables in the study, the type of research design, the method of data analysis, and the size of the accessible population. This study therefore applied the rule of thumb to obtain as big a sample as possible (Mugenda & Mugenda, 2003).

Systematic simple random sampling was used to obtain the sample for the study. Using the list of names of students obtained from the Registrar's office, as a sampling frame. Using the sampling frame, the sample for the study was obtained. To determine the sampling interval, the total population was divided by sample size. Thus 700 student population was divided by 210 sample; the answer was approximately 3.33 which were rounded off to 3. The first student on the list was picked for the study. From there every third student was picked till 210 respondents were obtained.

Data Collection Instruments

The development of tools for collection of data in any given study is very important (Mugenda & Mugenda, 2003). All the students sampled were asked to fill a self administered questionnaire form. The 210 students were required to fill in the questionnaire forms because all of them were able to read and write.

Before administering the instrument, there was pilot testing of the instrument. The best way to discover whether research instruments are adequately designed is to pre-test them. The pre-testing was likened to conducting a mini-study with a small sample to determine whether the study approach was correct, and to help fine-tune the

questions. This pre-testing was necessary to ensure the questions were correctly designed to enable respondents' ease of response (Kothari, 1990). The questionnaire was pre-tested at the NYS Garment School. At the Garment School, four students (two males and two females) were purposely and conveniently selected for pre-testing. The pre-test sample should be one percent to ten percent of the sample size (Mugenda & Mugenda, 2003). In this study, the pre-testing involved two percent of sample size which is four respondents. The subjects involved in pre-testing did not participate in the actual research. An important consideration however, was that the participants in pre-testing were identical to those who participated in the actual data collection (Mugenda & Mugenda, 2003).

Data Collection

The primary data was collected with the assistance of research assistant. The questionnaire was administered with the help of the research assistant at the time agreed with the heads of departments at the NYS IBS.

Reliability of Research Instruments

This is a measure of degree to which a research instrument yields consistent results over repeated trials (Mugenda & Mugenda, 2003). Once the questionnaire had been finalized, there was a test/retest out in the field. It was test/retested on a selected sample of four Students at the NYS Garment School. This was necessary to ensure that the instrument was reliable. The test/retest method helped to estimate reliability. The questionnaire implemented at two separate times for each subject at the NYS Garment School. In any case, any errors detected were corrected before actual data

collection was undertaken. The test/retest sample was similar to the actual sample involved in the actual study (Mugenda & Mugenda, 2003).

Validity of Research Instruments

Validity is accuracy and meaningfulness of inferences, which are based on research results (Mugenda & Mugenda, 2003). Validity is whether the research tool measures that which it was intended to measure. In other words, does the research instrument allow one to get data expected (Mugenda & Mugenda, 2003). Before carrying out the actual research, the data collection tool was pre-tested, as already pointed out, at the NYS Garment School. From the scoring and responses, the questions were rephrased accordingly. Also instructions were revised to make them clearer and therefore valid.

Data Analysis

Once raw data had been collected, it was systematically organized in a manner that facilitated analysis. The data was first cleaned, and checked for consistency. Then it was coded. Coded responses were analyzed using appropriate statistical procedures. Statistical computations done were frequencies, and percentages. With the help of computer using Excel software, data were analyzed and then interpreted and research findings presented in charts, and graphs. Thereafter conclusions were drawn and recommendations made based on research findings.

Ethical Considerations

Researchers must be people of integrity. They should therefore observe ethical issues (Mugenda & Mugenda, 2003). The respondents were protected by keeping the information given confidential. The exercise conformed to the principle of voluntary consent where respondents willingly participated in the research. In this respect the work schedule of students was respected. In addition, ethical issues such as honesty, respect for all respondents were taken into consideration.

Summary

In this chapter, the research elements used in the study have been presented. The research design has been described in detail. In addition, the target population, sample size, and sampling procedures have been presented. Data collection instruments and data collection procedures have also been described. The reliability of instruments, validity of instruments, and data analysis, has all been presented. Reviews of ethical issues taken into consideration in the study have been presented. To this end, a questionnaire which was administered to the respondents arising from this road map, the data collected was analyzed, presented and interpreted. Later, discussions are done with a view of drawing conclusions and making recommendations.

CHAPTER FOUR

Data Presentation, Analysis, and Interpretation

Introduction

This chapter gives the analysis and presentation of the data. The study used a quantitative data collection tool the questionnaire. It also gives an interpretation of the data which formed the basis for the conclusions, and recommendations.

The study was conducted at the NYS IBS in Nairobi. While collecting data, deliberate efforts were made to achieve a certain level of equity in terms of gender of the respondents. A total of 210 questionnaires were administered and 158 were received from NYS IBS college students. The response rate was 75.24 per cent of the total survey questionnaire administered. This response rate, according to Mugenda and Mugenda (2003) is adequate for analysis and reporting.

A survey questionnaire was used to identify the sources of information and perception of healthy diet among the NYS IBS students. A personal questionnaire requested demographic data, and response to sixteen item survey instrument. The survey questionnaire was distributed to NYS IBS college students in session during the month of May 2013. The survey was conducted, and the results were received, and tabulated with the help of computer using Excel software.

Response Rate

According to Altinay and Serakeras (2008), a response rate often expressed in percentage is the ratio of respondents who have actually participated in the study divided by the number of people in the sample. Babbie (2008) explains response rate as one guide on the representativeness of the sample respondents. Babbie, citing a

review of published social research literature suggest that 50 % response rate is considered adequate for analysis, whereas 60 % and 70 % are considered good and very good respectively. Also Maxfield and Babbie (2008) explain that as a rule of thumb, a response rate of 50 % is sufficient for analysis and reporting.

Out of 210 questionnaires administered, 158 (75.24%) were received. Being a response rate greater than 70 %, it was considered fit for analysis and reporting as recommended by Babbie (2008), and Maxfield and Babbie (2008). The response rate was above very good.

Gender

Majority of the respondents who filled the questionnaire were males (Figure 4.1). This suggests that there were more male students than female students at the NYS Institute of Business Studies assuming that both male and female student respondents are in equal proportion.

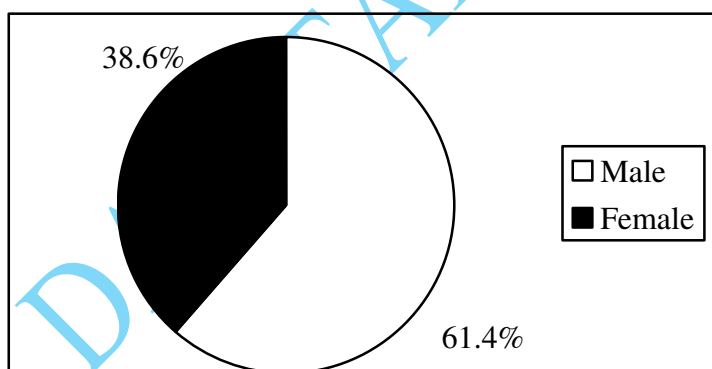


Figure 4.1

Respondents' Year of Study

Majority of respondents who filled the questionnaire were first years. Third year had the lowest number of respondents (figure 4.2).

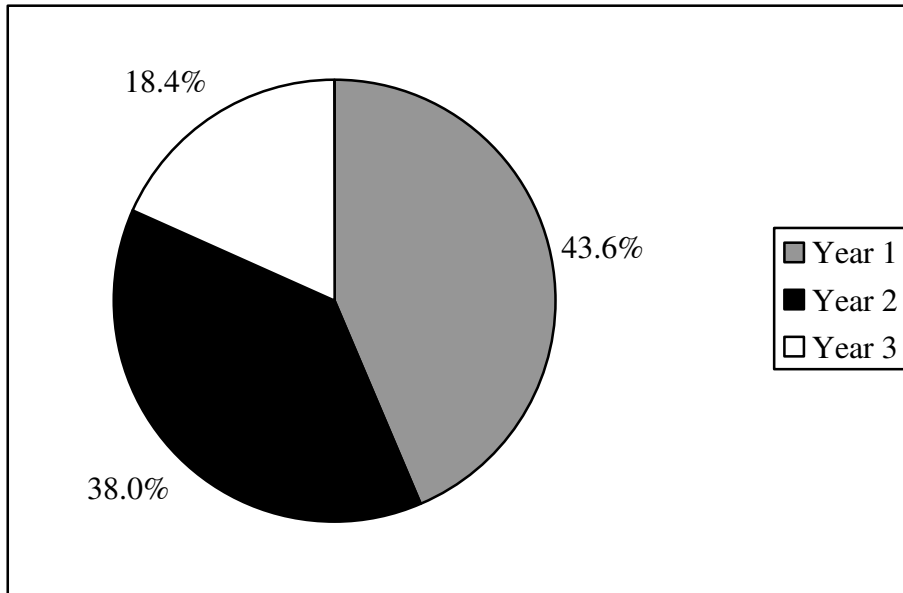


Figure 4.2

On the other hand, majority of male respondents were second years (figure 4.3).

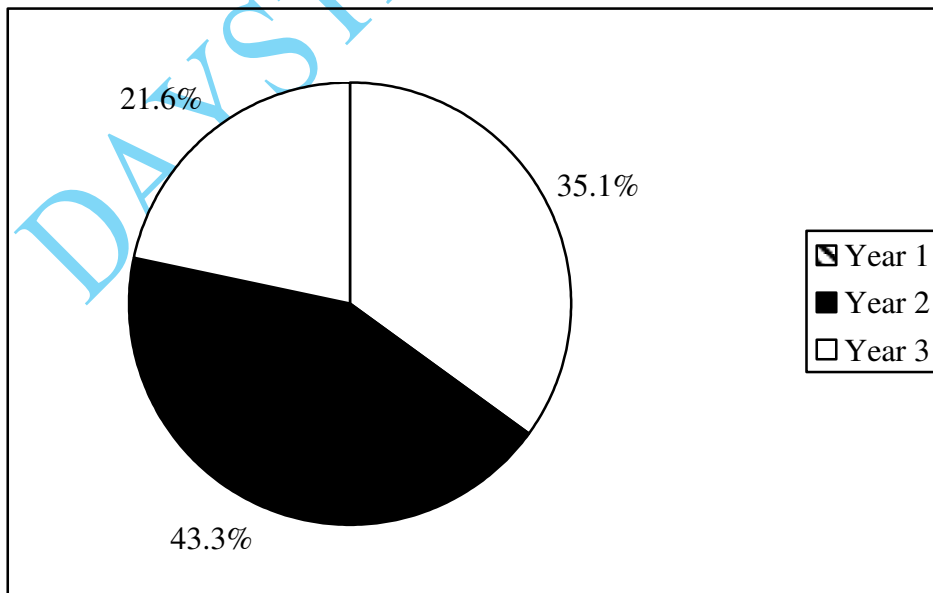


Figure 4.3

Equally majority of respondents among female students were first years (figure 4.4).

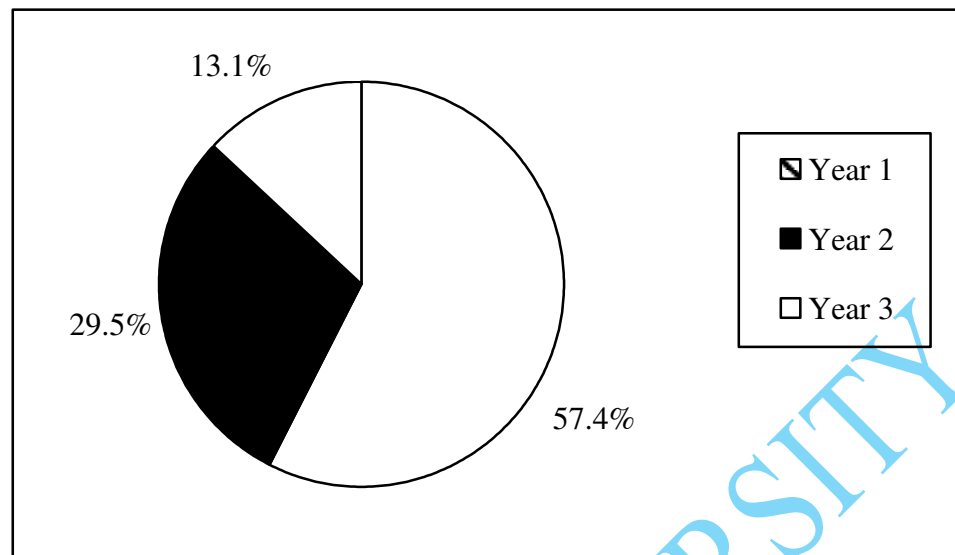


Figure 4.4

Sources of Nutritional Information

Sources of information were taken to refer to a person, thing or activity from which information about healthy diet is obtained. Through a questionnaire, the respondents were asked to list four main sources from which they seek nutritional information. Survey results indicated that the students rely on health institutions (25.9%), nutritional books (14.6%), magazines (9.5%), internet (8.9%), TV programmes (7%) among other sources (Figure 4.5).

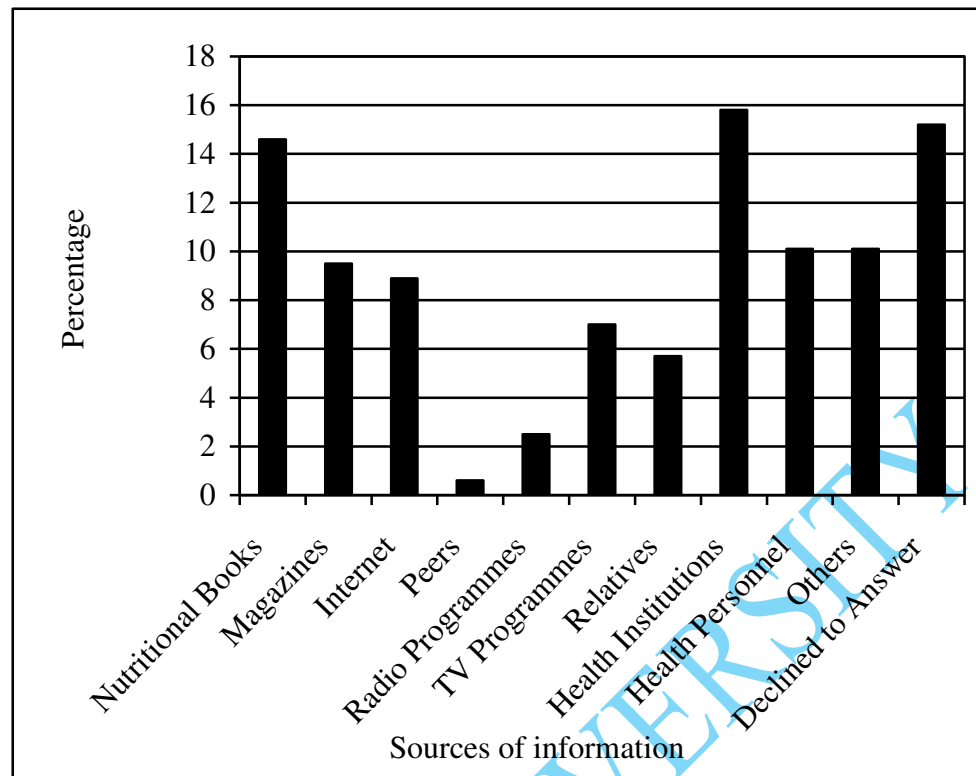


Figure 4.5

However, there was slight difference when analyzing this data by gender. Majority of male respondents sought healthy diet information from health institutions (20.8%), nutritional books (12.4%), internet (9.3%) and magazines (9.3%) among others (figure 4.6).

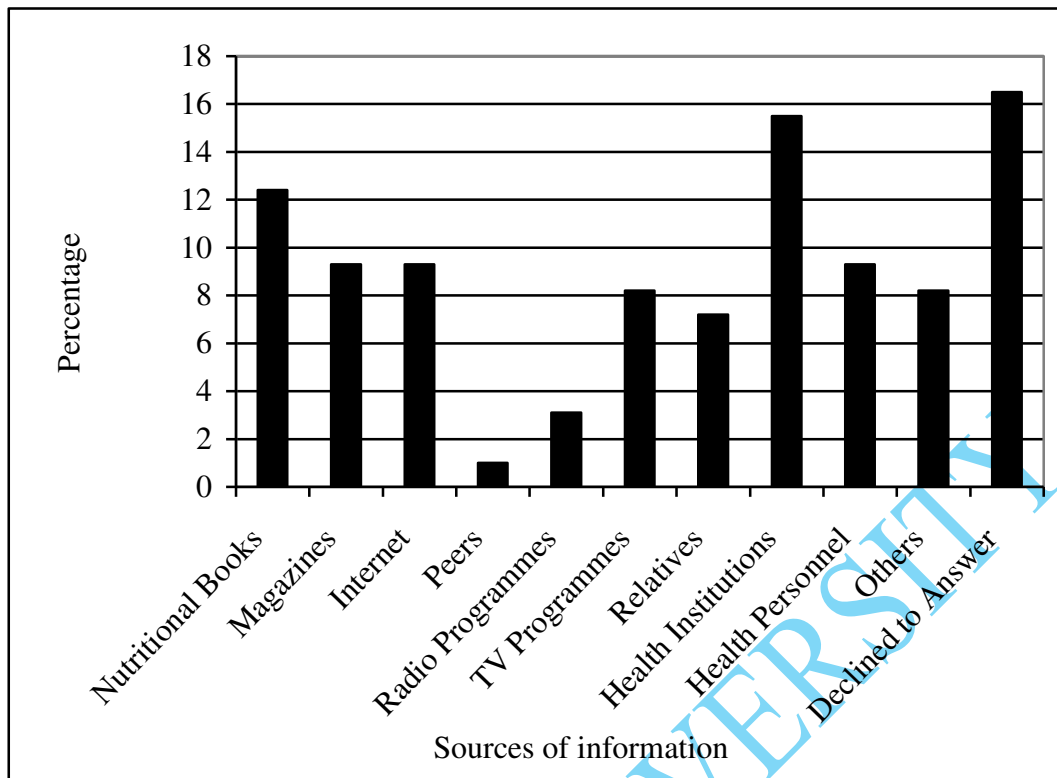


Figure 4.6

On the other hand, majority of female respondents sought healthy diet information from nutritional books (18%), health institutions (27.9%), magazines (9.8%), and internet (8.2%) as per figure 4.7.

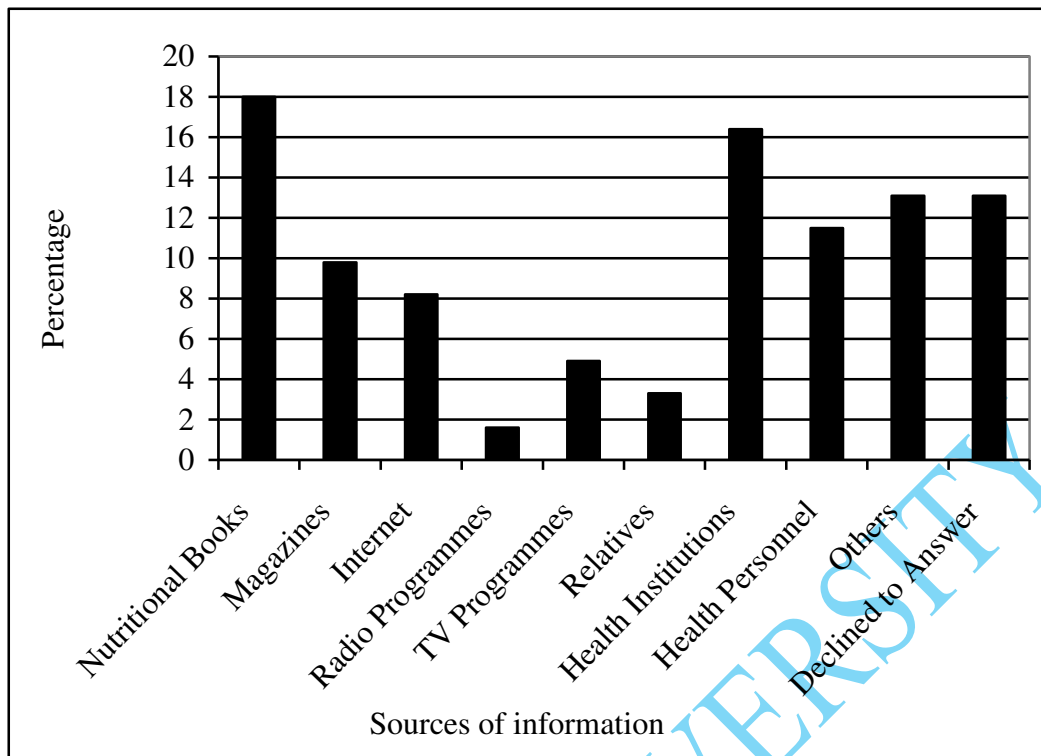


Figure 4.7

The respondents were also asked to list people from whom they seek nutrition information. Students seek healthy diet nutrition information from medical personnel (34.8%), parents (17.1%), nutritionists (11.4%), lecturers (3.2%), relatives (1.9%) among others (figure 4.8).

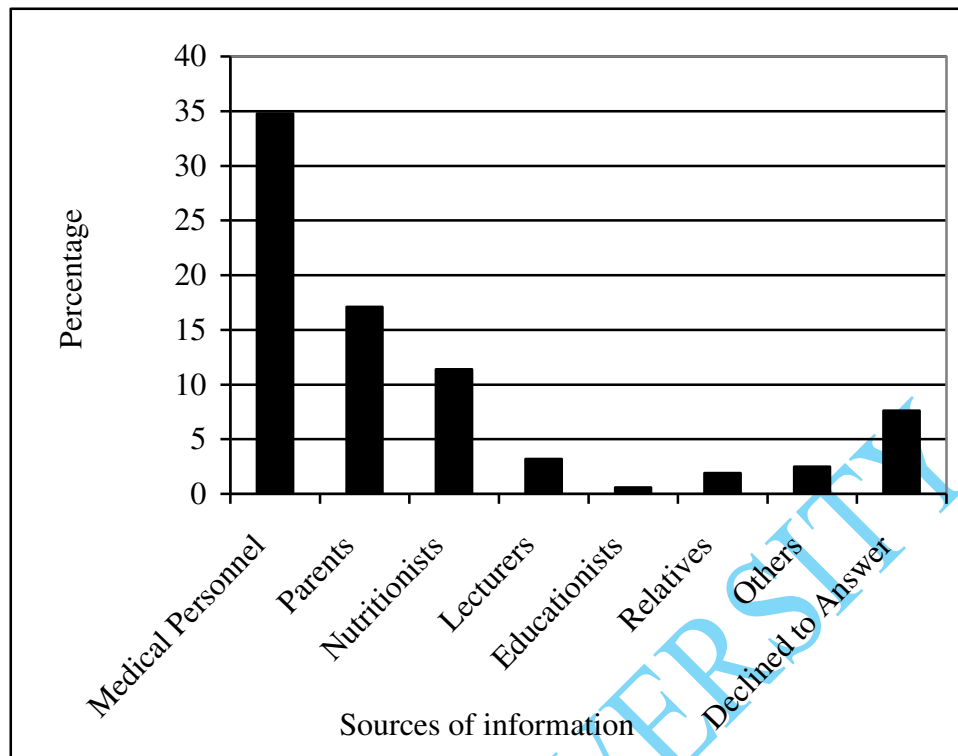


Figure 4.8

In terms of gender, the research revealed that male respondents seek healthy information from parents (21.6%), nutritionists (14.4%), NYS administration (9.3%), peers (4.1%), relatives (2.1%) among others (figure 4.9).

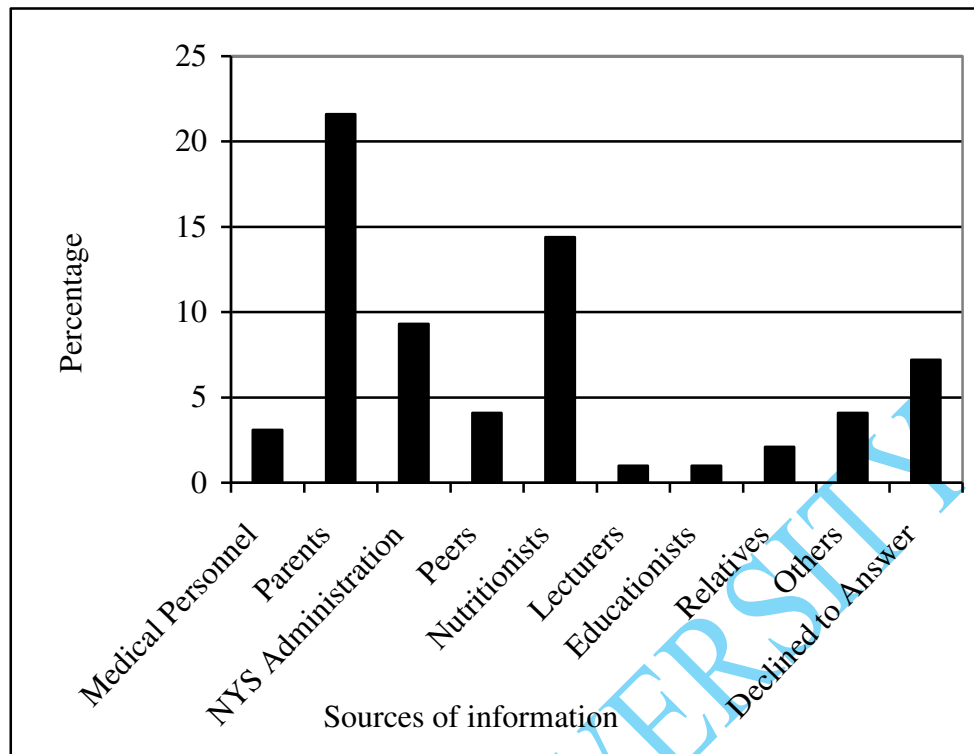


Figure 4.9

Female respondents on the other hand seek healthy diet information from NYS administration (31.1%), parents (9.8%), lecturers (6.6%) and nutritionists (6.6%), among others (figure 4.10).

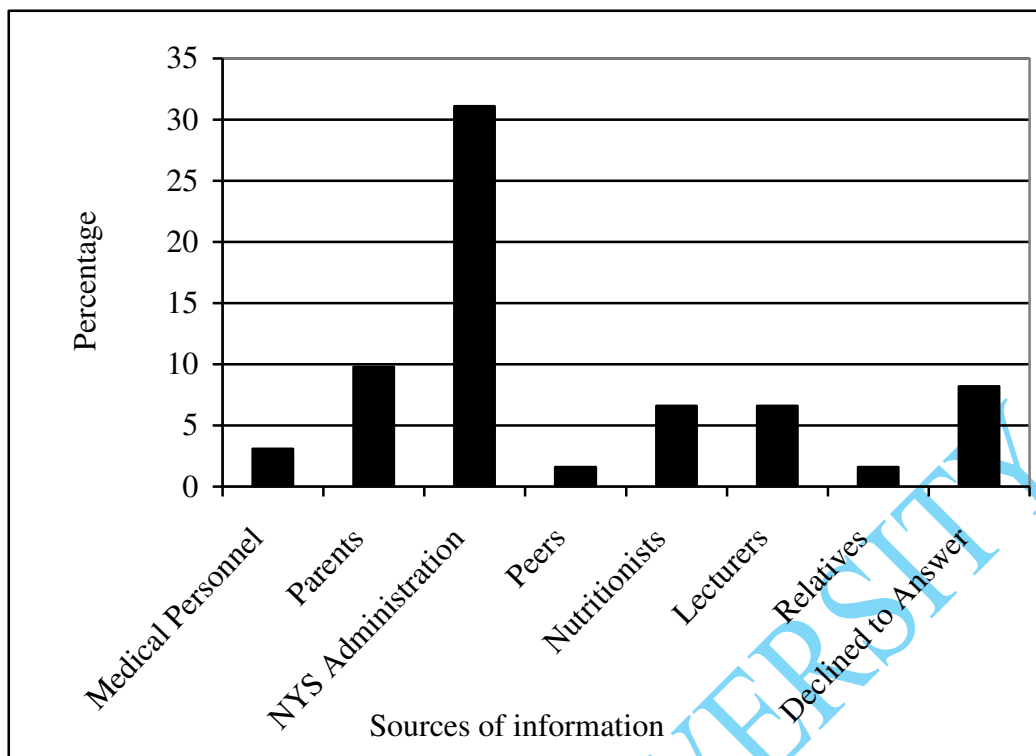


Figure 4.10

Students' Perception of Healthy Diet

The students' perception of healthy diet was addressed by question 18 of the survey research tool. The results of the analysis revealed that many respondents fully understood what constitutes a healthy diet (61.4%). This was measured by students' listing of the main food groups which constitutes healthy diet. Thus 61.4% of students were able to list the main food groups of a healthy diet. Only a minority of students could not tell what constitutes a healthy diet ((17.1%). The 17% could only manage to list one constituent of healthy diet and/or some could not list a single constituent of healthy diet as per figure 4.11.

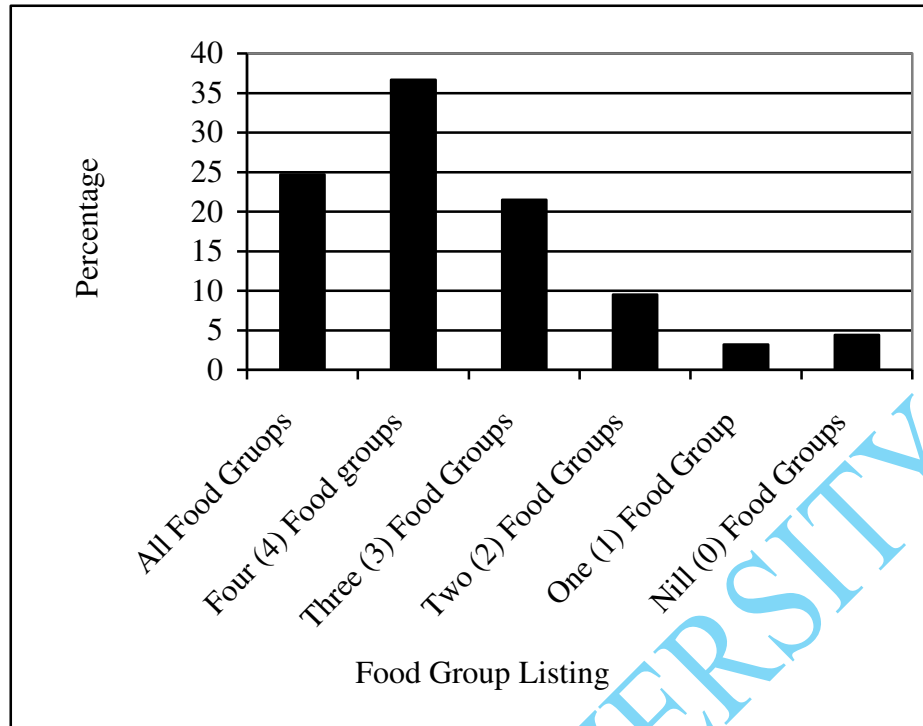


Figure 4.11

An analysis based on gender revealed that the majority of male students fully comprehended what constituted a healthy diet (80.5%) as per figure 4.12.

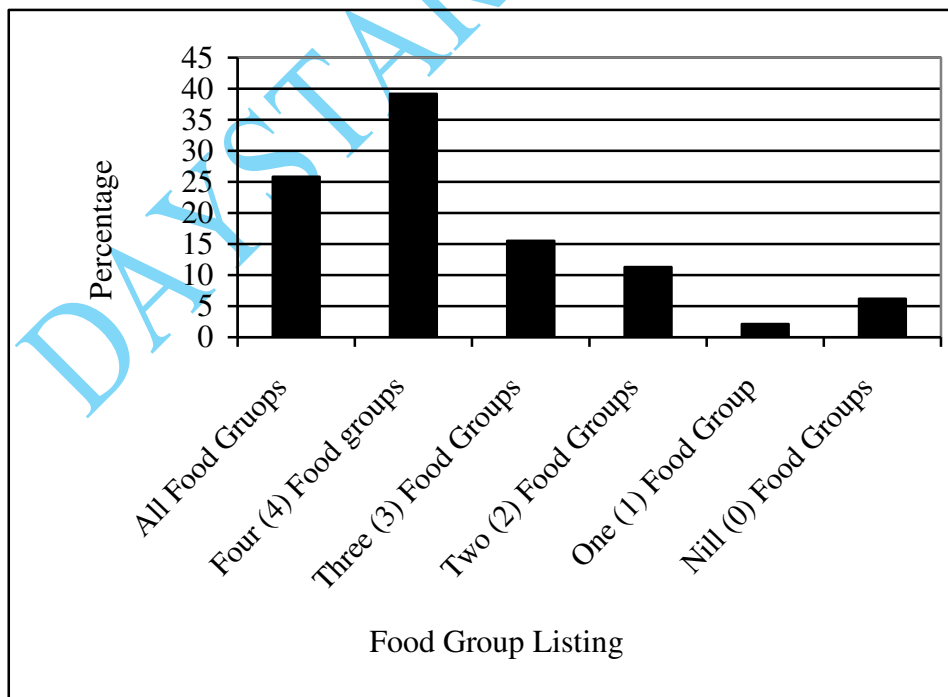


Figure 4.12

This analysis also revealed that female students were equally conversant with what constitutes a healthy diet (85.9%) as per figure 4.13.

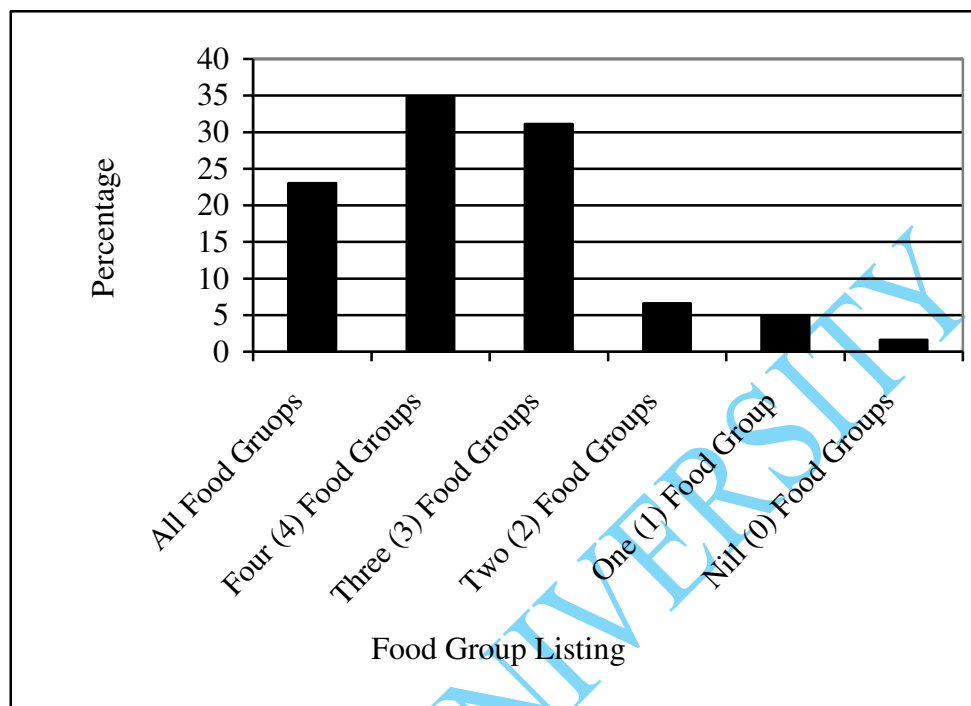


Figure 4.13

Students' Avoidance of Mess Food

The students were asked whether they skipped mess food. The response was that 81% of all students responded with a yes answer (figure 4.14). However, the majority of students who skipped mess food were females (86.9%). However, it was not established whether the students considered the food from outside the mess to be healthy.

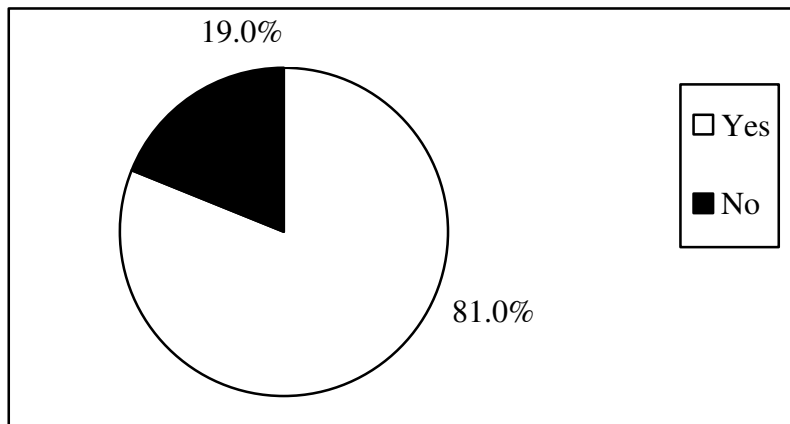


Figure 4.14

Reasons Why Students Skip Mess Food

Results of analysis revealed that the students were concerned about quality of cooking (60.1%), monotony (13%), and thus no variety to choose, wrong serving time (1.9%), and poor hygienic conditions at the mess (6.3%).

Summary of Key Findings

Sources of Information on Healthy Diet Information

It has been established that students seek nutrition information from print, electronic, and interpersonal sources. The main sources include; nutritional books (14.6%), magazines (9.5%), internet (8.9%), and health institutions (25.9%). On the other hand the students relied on interpersonal sources which included; medical personnel (34.8%), NYS administration (17.7%), parents (17.1%), nutritionists (11.4%), lecturers (3.2%) and, peers (3.2%) among other sources.

Students' Perception of Healthy Diet

It was established that many students fully comprehended the concept of healthy diet (82.9%). The students were able to list at least three to five constituents of healthy diet. Very few students (17.1%) did not seem to understand the concept of healthy diet.

Reasons Why Students Skipped Mess Food

It was established that 81% of students skipped mess food. However, the majority of those skipping mess food were female. 86.9% of female students skipped mess food whereas only 77.3% of male students skipped mess food.

Many reasons were advanced to explain why students skipped mess food. The main reasons included; poor cooking (60.1%), monotony of same foods (8.2%), poor hygienic conditions at the kitchens (6.3%), inadequate rations (6.3%), medical reasons (3.8%), and peer pressure (2.5%) among others.

CHAPTER FIVE

Discussions, Conclusions, and Recommendations

Introduction

The purpose of the study was to find out the sources of information and perception of healthy diet among the National Youth Service College students. The objectives of the study were; to identify the sources the students relied on for nutritional information, to examine the students' perception of healthy diet, and to establish why the students avoided the healthy diet served at the mess and instead opted for foods from outside the mess. The chapter gives a summary of the key findings, conclusions, recommendations to NYS, and recommendations on areas of further research.

Sources of Nutritional Information

It has been established that students seek nutrition information from print, electronic, and interpersonal sources. The main sources include; nutritional books (14.6%), magazines (9.5%), internet (8.9%), and health institutions (25.9%). On the other hand the students relied on interpersonal sources which included; medical personnel (34.8%), NYS administration (17.7%), parents (17.1%), nutritionists (11.4%), lecturers (3.2%) and, peers (3.2%) among other sources.

Based on these findings, it can be concluded that the students utilize a variety of sources to gain information on healthy diet. It can be pointed out that the sources range from electronic for instance the TV and internet, print which includes books and magazines, and interpersonal sources which include NYS administration, parents, nutritionists, and peers.

This finding disagrees with the findings of Baxter, Egbert, and Ho (2008) whose study concluded that 3% of American college students would turn to health professionals for health information. In Kenya, socialization is set up in such way that it is done by parents, grand parents, and elders in society. The students at NYS IBS also come from a multicultural set up where they have been socialized differently depending on their society of origin. Thus, given the diversity of the NYS IBS society, we do not anticipate the heterogeneous students to behave uniformly when seeking healthy diet information. Hence, interpersonal networks seem to dominate because kinship ties are still very strong as opposed to the American society where individualism seems to dominate. Furthermore, NYS being a paramilitary force, the students are socialized to adhere to chain of command and military discipline based on their platoons and company formations. The student schedules are normally tidy and students do not have enough free time to spend on net or watching TV or listening to radio.

Also the findings seem to disagree with the findings of Fishman (2006) that when it comes to increasing awareness and knowledge of health issues, news media are possibly more important than interpersonal communication. It should be pointed out that the NYS IBS students are unique in many ways as already explained.

The findings seem to agree with the research of Banas (2008) who concluded that students relied on the internet to locate information regarding healthful eating. The results of this survey indicate that only 8.9% of NYS IBS students seek healthy diet information on internet. However, this percentage is low due to the fact that, NYS IBS students work under a closely controlled and monitored military environment. This is because the students can only access computer laboratories at limited time and they can only do so under an instructor. The instructors may not allow students to use

learning time surfing the net. Equally however, the students cannot use their internet enabled mobile phones. The phones are allowed at the Institute. The phones are only allowed for use at limited times normally during weekends when students are not doing fatigue, during evenings in week days between 16 to 18 hours and at night after preps time which normally ends at 21 hours.

The study found out that gender is an important moderator. This agrees with Mill (1988) who found that women tend to be more communal and are more likely to discuss their feelings, concerns, and health status with other women. Hence, the women are more aware than men of how risk factor compared with those of same gender, peers, and thus, greater salience of comparative risk is important in predicting healthy diet concern. This is demonstrated by a high number of female students consulting peers and fellow women who are NYS administrators and their company commanders.

Students' Perception of Healthy Diet

It was established that many students fully comprehended the concept of healthy diet (82.9%). The students were able to list at least three to five constituents of healthy diet. Very few students (17.1%) did not seem to understand the concept of healthy diet. The results indicated that many students fully comprehended the concept of healthy diet. However, many students went in for fast food. This can be explained by the fact that fast food is not only cheaper compared to healthy food but also readily available. Thus, for convenience the students go for it more out of necessity and due to financial challenges. This is because according to students, "they have little time to argue with mess" officers. It appears like the messing officers are hostile to students. According to one respondent, "most ingredients are taken away by messing officers".

As a result ingredients used to cook are inadequate. For instance, “an ingredient like meat pilferage thus reduced ration of meat with a lot of tasteless soup”.

However, there is need to build on this positive aspect of student knowledge to ensure that the students actually put into use and practice healthy eating. Providing social support is an important ingredient in healthy communication. This can be done by mobilization and promotion of the concept of healthy eating practice. This can be done by empowering the students to embrace healthy eating.

According to this study, the family plays an important role in perception of healthy diet. The finding agrees with the findings of Boris and Lewis (2006) who concluded that the family is an important factor in perception of healthy diet. The family is very important in social and historical context. Thus work place has taken up family-like roles as demonstrated by the students consulting NYS administration on healthy diet matters.

The study finding also agrees with that of Kar, Alcalay, and Alex (2001) who pointed out that there is need to perform interpersonal communication. It has been demonstrated that interpersonal communication has a lot of influence on NYS IBS students. The finding also revealed that society (i.e. school, religion, family, peers, background, clubs, culture, experience, and moral values,) strongly influenced NYS IBS college student's perception of healthy diet. This phenomenon can be explained by the fact that NYS IBS female students are more social and share information unlike male counterparts. Thus, explaining why more females sought nutrition information from their administrators and company commanders.

It was also revealed that many students were not satisfied with the ration of food served to them at the mess (71%). Based on gender, it was revealed that 77.3% of males and 68.9% of females were not satisfied of the ration served. As a result, many

students were opting to eat snacks (50.0 %). The students' preferred snacks included cakes, bread, biscuits, *mandazi*, eggs, and drinking fluids like yoghurt, juices, and soda. Much of these foods constituted fast food which was contradictory to a healthy lifestyle. Hence, it will be accurate to point out that fast food is contrary to a healthy diet. This should be a cause of concern to the NYS administration. Thus, although NYS IBS students did have an accurate view of healthy diet, their snacking shows that they have not put into practice what they know about healthy diet. This is because research has indicated that it is difficult to consume a healthy diet by primarily consuming fast foods (Turley, 2009).

Reasons Why Students Skipped Mess Food

It was established that 81% of students skipped mess food. However, the majority of those skipping mess food were female. 86.9% of female students skipped mess food whereas only 77.3% of male students skipped mess food.

Many reasons were advanced to explain why students skipped mess food. The main reasons included; poor cooking (60.1%), monotony of same foods (8.2%), poor hygienic conditions at the kitchens (6.3%), inadequate rations (6.3%), medical reasons (3.8%), and peer pressure (2.5%) among others.

It was established that there are many challenges at the mess at NYS IBS. The mess officers should ensure that student do not skip mess food by being more friendly. The mess officers should talk to students and ensure student food is cooked for students and not used for the benefit of non students. This could create students' trust in mess officers. Currently student confidence and trust in mess officers is low.

Conclusion

Based on the findings, of this study, the following conclusions were arrived at. Because of these findings, the NYS administration, dietitians, and healthcare professionals must present information regarding healthy diet in forms such as pamphlets and magazine articles that would be easily accessed by NYS IBS college students in order for them to be more informed about the benefits of a healthy diet.

This study also revealed that many students did comprehend the principles of healthy diet but did not practice it. The students might understand the principles of healthy eating but their practices are not fully known. Hence there may be a discrepancy between this knowledge of healthy diet consumption and the practice of healthy eating among the students.

Based on the outcome of the study, it is suggested that the following information be availed to address the challenge of all students; holding regular talks to students by professionals for instance nutritionists, medical personnel, and dieticians to sensitize students about healthy diet practice. There should be put in place regular measures and a mechanism to ensure that there is carried out inspections of the messes and kitchens by public health officers. This will assure that the highest standards of hygiene possible are kept. The foods should be prepared on time and served on time while still warm to students, or else the Service should come up with equipments that can keep the food warm incase it will be served late.

Finally, but not least, the NYS top administration should address student feelings that the messing officers do not seem to treat students well. Whereas we agree that NYS is a military out fit, it is the recommendation of this study that the mess officers should

embrace and practice some elements of human relations in dealing with NYS IBS students. Also the practice of having officers taking away student foods should be addressed. Thus, officers should ensure the safe custody of student food. Once taken from stores, the ingredients should be used for the good of students and not officers and their families. Thus need to train mess officers to uphold and adhere to work ethics and integrity.

Areas for further study

The study found out that many students did not fully understand what constituted a healthy diet. Thus, the practice of snacking should be a cause for concern given that some of the snacks constituted of unhealthy diet. However, it should be noted that the findings were based on the views of a relatively small sample (158) of students. It is therefore recommended that if the results are to be generalized for the NYS, a bigger population of NYS is recommended to replicate the current results. Likewise, such a study could be carried out in other NYS colleges so as to correlate the results. A study of that nature could focus on specific areas such as challenges facing students in diet selection, and unhealthy diet and the concept of disease.

This study provided information regarding the dietary choices and forces influencing dietary decisions among NYS IBS students. It warrants further investigation; thus the following recommendations for further research and study are offered; this study should be replicated using a different population to determine the sources of information and perception of healthy diet among NYS college students in Kenya.

Specifically;

(1) A study should be conducted to determine what kind of dietary practices for healthy eating do the NYS students embrace.

(2) A study on the effects of advertisements on healthy eating among NYS college students should be carried out.

(3) A study should be conducted to determine how NYS college students make their daily food choices.

Summary

This chapter has given a summary of the key findings, conclusions, recommendations to the NYS administration, and recommendations on areas of further study. In chapter one was presented introduction and background to the study, followed by review of relevant literature in chapter two, research methodology in chapter three and the analysis, interpretation, discussion of key findings in chapter four.

This study contributes to the field of communication; in that it has given the Kenyan perspective of NYS IBS students' sources of information and perception of health diet. It has revealed that there is a discrepancy between knowledge of healthy diet and the actual practice of healthy eating. This therefore calls for proper communication to students regarding the practice of healthy eating. It is recommended that this be done using multiple channels ranging from print, electronic to interpersonal communication for optimum effect.

The findings have demonstrated that seeking and consuming information do not necessarily lead to information decision making especially if information seeking occurs under conditions of perceived risk. Thus, a need to use both traditional communication systems and also modern technological advances to dispense healthy diet related information. Moreover, emphasis should be on interpersonal communication.

References

- Afifi, W.A., & Weiner, J. L. (2004). Seeking information about sexual health: applying theory of motivated information management in J. P. Dillard (Ed) *Human Communication Research* 32 (1), 35-57.
- Ajzen, I. (1998). *Attitudes, personality behaviour*. Chicago: The Dorsey Press.
- Ajzen, I. (2013). Retrieved from; <http://www.people.umass.edu/aizen/tpb.ag.html>.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs: Prentice Hall
- Altinay, L., & Serakeras, A. (2008). *Planning research in hospitality and tourism*. United Kingdom: Elsevier Ltd.
- Ariely, D., & Norton, M. I. (2009). Conceptual Consumption. *Annual Review of Psychology*, 60, 475-499
- Aukett, R., Ritchie, R., & Mill, N. (1988). Gender differences in friendship patterns, Sex roles, 19 (1-2), 57-66 minority, majority, and unanimous group members in the communication of information in *Journal of Human Communication* 32(2), 178-197.
- Babbie, E.R. (1998). *The Basics of social research* (8th ed.). California: Wadsworth publishing company.
- Baker, L. M. (1995). Anew method of studying patient information needs and information seeking patterns. In *Proceedings of the International Symposium on Health Information Research* (pp 67-75) Sheffield: University of Sheffield, Department of Information Studies.
- Banas, J. (2008). A tailored approach to identifying and addressing college students' online health information literacy, in *American Journal of Health Education*.39 (4).
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs: Prentice Hall.
- Baxter, L., Egber, N., & Ho, E. (2008). Everyday health communication experiences of college students. *Journal of American college Health*. 56 (4).
- Beaglehole, R., Bonita, R., Horton, R., Adams, C., Alleyne, G., Asaria, P., et al. (2011). Priority Actions for the non-communicable diseases crisis. *Lancet*, 377, 1438-1447.
- Bensley, R.J.,& Brookins-Fisher, J. (2009). *Community Health Education Methods: practical Guide 3rd ed*. Boston: Jones and Bartlett Publishers.
- Bertrand, J. T. (2006). Introduction to the special issue on cost-effectiveness Analysis in Ratzan, S. C. (Ed) (2006) *Journal of Health*. 13(2).
- Bord, R. J., & O'Connor, R. E. (1997). The gender gap in environmental attitudes: The case of perceived vulnerability to risk. In *Social Science Quarterly* 78 (4), 830-840.
- Boris, E., & Lewis, C. H. (2006). Care giving and wage earning: A historical perspective on work and family. In Pitt-Catsoupes, E. E., Kossek, Sweet, S. (Eds.). *The work and family handbook: Multi disciplinary perspective and approaches*. (pp 73-98). Mahwah, NJ: Lawrence Erlbaum Associate Inc.

- Boston University, (2013). Retrieved from <http://healthcommunication.edu/health-communication-defined/>
- Brasher, D. E., Goldsmith, D. J, & Hsieh, E. (2002). Information seeking and avoiding in health contexts, in *Human Communication Research*, 28,258-271.
- Brenda, D. (1980). Communication gaps and Inequalities: Moving towards Recommendations. In Devin, & Voigt (Eds.). *Progress in Communication Science Vol.II*. New Jersey: Ablex Communication gaps & inequalities Publishing Corporations.
- Chandran, E. (2004). *Research Methods: A Quantitative approach with illustrations from Christian Ministries*. Nairobi: Star Bright Services.
- Choi, W. J., & Kim, H. K. (2011). Health claim for food products advertised on Korean television and their regulation: a content Analysis. In *Journal of Health Communication* 16 (S3) 2011.
- Christakis, N. A. & Fowler, J. H. (2007). The Spread of Obesity in a large social network over 32 years. *New England Journal of Medicine*, 357,370-379.
- Citizen Television. (2012). "The Silent Killer" *Royal Media Services*. Sunday 19th February, 2012, Nairobi, Kenya.
- Cohen, L., & Manion, L. (1998). *Research methods in Education (4th ed.)*. London and New York: Hodder and Stoughton.
- Combs, B. & Slovic, P. (1979). News paper coverage of causes of death. In *Journalism quarterly*, 56,837-843.
- Cox, E. (1986). As level psychology for specification B. In Perception and attention. What is albinism? (Chapter 8).retrieved April 29, 2013from <http://books.Googleco.ke/books?idIvc6DsouAjQC&pg=PA193sdq=PA193&=perceptionsyc>.
- DGAC. (2010). History of dietary guidelines, appendix E-4.*Report of the DGAC on dietary Guidelines for Americans*. Retrieved from mypyramid.gov
- Dutta-Bergman, M.J. (2005). Developing a profile of consumer intention to seek out additional information beyond a doctor: The role of communicative and motivation variables. *Health Communication*, 17,1-16.
- Eagleman, D. (2011). *Incognito: The secret lives of the brain*. New York: Pantheon books.
- Eagly, A. H. (1987). *Sex differences in social behaviour: A social role interpretation*. Hillsdale, NJ: Lawrence Erlbaum Associate Inc.
- Fight the Obesity Epidemic. (FOE) (2004). our children are among the fattest in the world. Retrieved April 27, 2013, from <http://www.foe.org.n2/facts2.html>.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behaviour: An introduction to theory and research. Reading, M.A: addisson-wesley.
- Fishman, J. M. (2006). Mass Media and Medicine: When the most trusted media misled. *Mayo clinic proceedings*, 81, 291-293.

- Godin, G. & Kok, G. (1996). The theory of planned behaviour: A review of its applications to related behaviours. In *American Journal of health promotion* 2 (87-98).
- Government of Kenya. (2007). *Kenya Vision 2030*. Nairobi: Government Printer.
- Government of Kenya. (2008). *Millennium Development Goals: Report for Kenya 2007*. Nairobi: Government Printer.
- Government of Kenya. (2009). *what is new and cool for Youth*. Nairobi: Government Printer.
- Greenfield, S., Kaplan, S., & Ware, J. E. (1985). Expanding patient involvement in care: Effects on patient outcomes. *Annals of internal medicine*, 10 (4), 1027-1035.
- Hart, A., Henwood, F., & Wyatt, S. (2004). The role of the internet in patient-practitioner relationships: findings from qualitative study. *Journal of Medical internet research*. 6 (30) e36.
- Hesselgrave, D.J. (1991). *Communication Christ Cross-Culturally: An introduction to missionary communication*. Grand Rapids: Zondervan.
- Hibbard, J. & Pope, C. (1983). Gender roles, illness orientation and use of medical services. In *Social Science and Medicare*, 17 (3), 129-137.
- Hicks, J. J. (2001). The strategy behind Florida's "truth" Campaign. *Tobacco Control*, 10 (1), 3-5.
- Horn, G. (2008). Brain Science, addiction and drugs (Working Group Report). London: *The Academy of Medical Sciences*.
- Institute of Medicine. (2004). *Health Literacy: A Prescription to End Confusion*. Washington DC: National Academy of Sciences.
- Johnson, S. E., Baur, C., Meissner, H.I. (2011). Back to Basics: Why Basic Research is needed to create Effective Health Literacy interventions. In Ratzan, S. C. (Ed.), *Journal of Health Communication* 16 (S3) 2011.
- Kar, S.B., Alcalay, R., & Alex, W.S. (2001). The emergency of a new public health paradigm in United States. In: Kar, S.B., Alcalay, R., & Alex, W.S. (2001). *Health Communication: multicultural Perspective*. New Delhi: Sage Publishers Inc.
- Katz, J.E., & Aspder P. (1997). Anatomy of strangers? *Communication of ACM*, 40 (12),81-86.
- Keeling, R. (2001). Food: Sustenance and symbol. *Journal of American college Health*. 49.
- Kenyatta, J. (1938). *Facing Mount Kenya*. Nairobi: East African Education Publishers.
- Kimberley, N. K. (2006). A decade of Research on Health Content in Media: The Focus on Health Challenges and Social Cultural Context and Attendant Informational and Ideological problems. In Scott, C.R. (Ed) *Journal of Health Communication: International Perspective*. Carbondale, Illinois, USA: Illinois University.

- Koontz, H., & Weinhrich, H. (1988). *Management*. Singapore: McGraw Hill Book co.
- Kothari, C. R. (1990). *Research Methodology: Methods and Techniques*. Jaipur: New Age International (Pty) Ltd, Publishers.
- Kowalski, R.E. (1987). *The Eight Week Cholesterol Cure*. New York: Harper & Row.
- Leedy, P. D. (1997). *Practical Research: Planning and Design* (6 ed.). New York: Macmillan Publishing.
- Littlejohn, S.W. (1989). *Theories of Human Communication* (3rd ed). California: Belmont.
- Mahal, A., Koran A., & Engelgar, M. (2010). *The economic Implications of non-communicable diseases for India*. Washington, D.C: World Bank.
- Maxfield, M. G. & Babbie, E. R. (2008). *Basics of Research Methods for Criminal Justice and Criminology* (2 ed.). Belmont, CA: Cengage Learning.
- McKenna, K. Y, A., & Barg, J. A. (1998). Coming out the age of the internet: Identity “de-marginalization” through group participation> *Journal of Personality and Social Psychology*, 75, 681-694.
- Ministry of Youth Affairs. (2006). *National Policy for Youth Polytechnics and Vocational Training Sector, Final draft*.
- Montana, P. (2008). *Management and Communication* (4th ed.).New York: Barron’s Educational Service Inc.
- Mucheke, S.K. Lifestyle diseases now threaten Kenya’s achievement on healthcare. *Daily Nation*. Tuesday, October, 2012.Nairobi.
- Mugambi, N. (2011). “Check ups that could save your life”. *Daily Nation*. Wednesday, December 21, 2011. Nairobi, Kenya.
- Mugenda, O. M. & Mugenda, A. G. (2003). *Research Method: Quantitative and Qualitative Approaches*. Nairobi: ACTS Press.
- Nalova, M.R. (2001). *The Effectiveness of communicating across cultural landscape*. Grand Rapids, Michigan: Londervan Publishing.
- Nguiri, N. L. (2008). *Powerful parenting: What every Parent Should Know*. Nairobi: Queenex Holdings Ltd.
- NYS. (2007). Unpublished Departmental Committee Report, on Service training paper.
- Paasche-Orlow, M. K., Wilson, E. A., McCormack, L. (2010). The evolving field of health literacy research. *Journal of Health Communication*, 15 (s2) 5-8.
- Parker, R., & Ratzan, S. C. (2010). Health literacy: A second decade of distinction for Americans. *Journal of Health Communication*, 14, 20-33.
- Pearson, R., M .J. (2008). College students’ judgment of others based on described eating pattern. *American Journal of Health Education*. 39(4).
- Piotrow, P. T., Kincaid, D.L., Rimon, J .G, Rinehart, W.E. (1997). *Health communication: Lessons from family planning and reproductive Health*. Praeger, CT: Praeger.

- Pitt-Catsoupes, M., Kossek. E. & Sweet S. (2006). Charting new territory: Advancing multi-disciplinary perspectives, methods, and approaches in the study of work and family. In Pitt-Catsoupes; M. Kossek E. E., & Sweet S. (Eds.) (2006). Charting new territory: Advancing multi-disciplinary perspectives, methods, and approaches. In the study of work and family.
- RAND health. (2001, October). Consumers and health care quality information: Need, availability, utility. Oakland, CA: California.
- Random House Kernerman Webster's College Dictionary 2010. Retrieved from: www.thefreedictionary.com/source.
- Ratzan, S. C. (2006). Throughout the Health Sector: Communication Must Influence. In Ratzan, S. C. (Ed.) *Journal of Health Communication* 13 (2).
- Rice.edu,(2013).Retrieved from <http://www.rice.edu/projects/HispanicHealth/Acculturation.html>
- Rimal, R.W., & Real, K> (2003). Perceived risk and efficacy beliefs as motivators of change. *Human Communication Research*, 29, 370-400.
- Rodney, W. (1989). *How Europe underdeveloped Africa*. Nairobi: Heinemann Kenya.
- Roses, M. (2011). "Building a healthier World" *Journal of Health Communication* 16, 3-5.
- Seventh Day Adventist Church. (2010). *Health and Healing*. Kendu Bay: Africa Herald.
- Severin, J.S., and Tankard J. W. Jnr. (2006). *Communication Theories: Origins, Methods and uses in mass media 4th Edition*. New York: Longman.
- Silberg, W. M., Lundberg, G. D., & Musacchio, R. A. (1997). Assessing, controlling, and assuring the quality of medical information on the internet. *Journal of American Medical Association*, 277, 1244-1245 role of the internet in patient-practitioner relationships: Findings from a qualitative: study. *Journal of Medical Internet Research*, 6 (3), e36.
- Simisite.com (2013). Retrieved from http://wiki.answers.com/Q/what_is_exotic_food
- Singleton, R., and Strait, B.C. (1993). *Approaches to Social Research* (2nd Ed). New York: Oxford Univ. Press.
- Tu, H. T., & Hargraves, J. L. (2003). Seeking health care information: Most consumers still on the sidelines. *Issue Briefs, Centre for the study of Health Systems Change*, 61, 1-4.
- Tubbs, S. & Moss, S (1974) *Human Communication: An Interpersonal Perspective* (1 ed.). New York: Random House.
- U.S. Department of Health and Human Services. (2000). Healthy people 2010, fact sheet. Office of disease prevention and health promotion. Retrieved from <http://www.health.gov/healthypeople>
- Vanswol, I. M., & Seinfeld, E. (2006). Differences between minority, majority, and unanimous group members in the communication of information. In *Human Communication Research* 32 (2) 2006, 178-197.

- Wanja, J. (2011). "Children growing fatter and sickly due to junk food". *Daily Nation*: Friday may 6, 2011 Nairobi Kenya.
- Wellman, B., & Wortley, S. (1991). Different strokes for different folks: Communities and Social support. *American Journal of Sociology*. 96 (3), 558-588.
- Whitney, E. & Rolfes, S. R. (2008). *Understanding Nutrition: International Student Edition*. Belmont: Thomson Wadsworth.
- Willis, R. J. B. (2001) *How to stay healthy*. Lincolnshire: Straborough Press Ltd.
- Wimmer, R.D. & Dominic, J.R. (1991). *Mass Media Research: An Introduction*. Belmont: Wadsworth Publisher.
- Wood, J. (2007). *Interpersonal Communication*. Belmont: Thomson Wadsworth.
- World Bank. (1996). *From plan to Market. World Development Report 1996*. New York: Oxford University Press.
- World Health Organization. (1998). *Health for all in the twenty first century*. (Online), P.6. Available: <http://www.who.org/wha-1998/pff98/ea5.pdf>.
- World Health Organization. (2006). *Tough Choices: Investing in health for development. Experiences from national follow-up to the commission on Macroeconomics and Health*. Geneva Switzerland: Author.
- World Health Organization. (2010). *Background document- informal dialogue with the private sector in the preparation of the UN High level meeting of the General Assembly on Noncommunicable Diseases*. Geneva, Switzerland Author.
- World Health Organization. (2011). *Global status report on alcohol and health*. Geneva, Switzerland: Author.

APPENDIX I: Frequencies: All Respondents

Statistics							
		GENDE R	YEAST	SEKNUT MO	SEKNUT LE	SEKNUT SE	SONUTRI MO
N	Valid	158	158	158	158	158	158
	Missin g	0	0	0	0	0	0

Statistics							
		SONUTRI LE	SONUTRI SE	YEARC O	CULTU RE	FAMIL Y	RELIGIO US
N	Valid	158	158	158	158	158	158
	Missin g	0	0	0	0	0	0

Statistics							
		PRESSUR E	SCHOO LIN	SOCIET Y	SKIPFO OD	SATISFI ED	REAME SS
N	Valid	158	158	158	158	158	158
	Missin g	0	0	0	0	0	0

Statistics							
		REAME SS2	MAIFOO DS1	MAIFOO DS2	MAIFOO DS3	RECOM MEN	ENCO U1
N	Valid	158	158	158	158	158	158
	Missin g	0	0	0	0	0	0

Statistics				
		ENCOU2	ENCOU3	FOOGROUPS
N	Valid	158	158	158
	Missing	0	0	0

Frequency Table: All Respondents

GENDER: Gender of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	97	61.4	61.4	61.4
	Female	61	38.6	38.6	100.0
	Total	158	100.0	100.0	

YEAST: Year of study of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 1	69	43.7	43.7	43.7
	Year 2	60	38.0	38.0	81.6
	Year 3	29	18.4	18.4	100.0
	Total	158	100.0	100.0	

SEKNUTMO: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Most preferred person)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	5	3.2	3.2	3.2
	Medical personnel	55	34.8	34.8	38.0
	Parents	27	17.1	17.1	55.1
	Nutritionists	18	11.4	11.4	66.5
	Lecturers	5	3.2	3.2	69.6
	Educationists	1	.6	.6	70.3
	NYS Administration	28	17.7	17.7	88.0
	Relatives	3	1.9	1.9	89.9
	Declined to answer	12	7.6	7.6	97.5
	Other , specify	4	2.5	2.5	100.0
	Total	158	100.0	100.0	

SEKNUTLE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Least preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	53	33.5	33.5	33.5
	Medical personnel	10	6.3	6.3	39.9
	Parents	3	1.9	1.9	41.8
	Nutritionists	5	3.2	3.2	44.9
	Lecturers	5	3.2	3.2	48.1
	Educationists	3	1.9	1.9	50.0
	NYS	19	12.0	12.0	62.0
	Administration				
	Relatives	8	5.1	5.1	67.1
	Declined to answer	34	21.5	21.5	88.6
	Other , specify	18	11.4	11.4	100.0
Total	158	100.0	100.0		

SEKNUTSE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Second most preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	8	5.1	5.1	5.1
	Medical personnel	14	8.9	8.9	13.9
	Parents	26	16.5	16.5	30.4
	Nutritionists	12	7.6	7.6	38.0
	Lecturers	20	12.7	12.7	50.6
	Educationists	2	1.3	1.3	51.9
	NYS	18	11.4	11.4	63.3
	Administration				
	Relatives	10	6.3	6.3	69.6
	Declined to answer	37	23.4	23.4	93.0
	Other , specify	11	7.0	7.0	100.0
Total	158	100.0	100.0		

SONUTRIMO: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Most preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	23	14.6	14.6	14.6
	Magazines etc	15	9.5	9.5	24.1
	Internet	14	8.9	8.9	32.9
	Peers	1	.6	.6	33.5
	Radio programmes	4	2.5	2.5	36.1
	TV programmes	11	7.0	7.0	43.0
	Relatives	9	5.7	5.7	48.7
	Health institutions	25	15.8	15.8	64.6
	Health personnel	16	10.1	10.1	74.7
	Declined to answer	24	15.2	15.2	89.9
	Other, specify	16	10.1	10.1	100.0
Total	158	100.0	100.0		

SONUTRILE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Least preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	16	10.1	10.1	10.1
	Magazines etc	11	7.0	7.0	17.1
	Internet	4	2.5	2.5	19.6
	Peers	11	7.0	7.0	26.6
	Radio programmes	6	3.8	3.8	30.4
	TV programmes	12	7.6	7.6	38.0
	Relatives	11	7.0	7.0	44.9
	Health institutions	6	3.8	3.8	48.7
	Health personnel	7	4.4	4.4	53.2
	Declined to answer	36	22.8	22.8	75.9
	Other, specify	38	24.1	24.1	100.0
Total	158	100.0	100.0		

SONUTRISE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Second most preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	4	2.5	2.5	2.5
	Magazines etc	12	7.6	7.6	10.1
	Internet	10	6.3	6.3	16.5
	Peers	12	7.6	7.6	24.1
	Radio programmes	6	3.8	3.8	27.8
	TV programmes	4	2.5	2.5	30.4
	Relatives	8	5.1	5.1	35.4
	Religious institutions	1	.6	.6	36.1
	Health institutions	9	5.7	5.7	41.8
	Health personnel	5	3.2	3.2	44.9
	Declined to answer	59	37.3	37.3	82.3
	Other, specify	28	17.7	17.7	100.0
	Total	158	100.0	100.0	

YEARCO: The year of study in college influences my diet choice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	107	67.7	67.7	67.7
	No	51	32.3	32.3	100.0
	Total	158	100.0	100.0	

CULTURE: My community culture influences my diet choice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	71	44.9	44.9	44.9
	No	87	55.1	55.1	100.0
	Total	158	100.0	100.0	

FAMILY: My family upbringing strongly influences my diet choice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	102	64.6	64.6	64.6
	No	56	35.4	35.4	100.0
	Total	158	100.0	100.0	

RELIGIOUS: My religious affiliation influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	51	32.3	32.3	32.3
	No	107	67.7	67.7	100.0
	Total	158	100.0	100.0	

PRESSURE: Peer pressure has influenced my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	36.7	36.7	36.7
	No	100	63.3	63.3	100.0
	Total	158	100.0	100.0	

SCHOOLIN: My schooling at high school strongly influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	82	51.9	51.9	51.9
	No	76	48.1	48.1	100.0
	Total	158	100.0	100.0	

SOCIETY: The society in which I was brought up influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	95	60.1	60.1	60.1
	No	63	39.9	39.9	100.0
	Total	158	100.0	100.0	
SKIPFOOD: Do some students skip to eat mess food?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	128	81.0	81.0	81.0
	No	30	19.0	19.0	100.0
	Total	158	100.0	100.0	

SATISFIED: Are you satisfied with the quantity of the ration served to students?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	41	25.9	25.9	25.9
	No	117	74.1	74.1	100.0
	Total	158	100.0	100.0	

REAMESS: List the six main reasons why some students do not eat mess food (Major reason)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor hygiene	10	6.3	6.3	6.3
	Poor quality food	95	60.1	60.1	66.5
	Lack of variety	13	8.2	8.2	74.7
	Poor timing	3	1.9	1.9	76.6
	Inadequate ration	10	6.3	6.3	82.9
	Peer pressure	4	2.5	2.5	85.4
	High disposable income	1	.6	.6	86.1
	Cultural background	1	.6	.6	86.7
	Medical reasons	6	3.8	3.8	90.5
	Other, specify	15	9.5	9.5	100.0
	Total	158	100.0	100.0	

REAMESS2: List the six main reasons why some students do not eat mess food (Second major reason)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor hygiene	30	19.0	19.0	19.0
	Poor quality food	28	17.7	17.7	36.7
	Lack of variety	30	19.0	19.0	55.7
	Poor timing	9	5.7	5.7	61.4
	Inadequate ration	23	14.6	14.6	75.9
	Peer pressure	5	3.2	3.2	79.1
	High disposable income	1	.6	.6	79.7
	Medical reasons	12	7.6	7.6	87.3
	Declined to answer	1	.6	.6	88.0
	Other, specify	19	12.0	12.0	100.0
	Total	158	100.0	100.0	

MAIFOODS1: List five foods which students mostly eat besides the mess food (Major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	79	50.0	50.0	50.0
	Fruits	24	15.2	15.2	65.2
	Fluids	23	14.6	14.6	79.7
	Declined to answer	6	3.8	3.8	83.5
	Other, specify	26	16.5	16.5	100.0
	Total	158	100.0	100.0	

MAIFOODS2: List five foods which students mostly eat besides the mess food (Second major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	38	24.1	24.1	24.1
	Fruits	45	28.5	28.5	52.5
	Fluids	39	24.7	24.7	77.2
	Declined to answer	8	5.1	5.1	82.3
	Other, specify	28	17.7	17.7	100.0
	Total	158	100.0	100.0	

MAIFOODS3: List five foods which students mostly eat besides the mess food (Third major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	15	9.5	9.5	9.5
	Fruits	29	18.4	18.4	27.8
	Fluids	25	15.8	15.8	43.7
	Declined to answer	43	27.2	27.2	70.9
	Other, specify	46	29.1	29.1	100.0
	Total	158	100.0	100.0	

RECOMMEN: Supposed you were asked to advise the NYS administration concerning the quality of the food served to students at the mess, what can you recommends?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balanced diet	54	34.2	34.2	34.2
	Hygiene	5	3.2	3.2	37.3
	Rations	23	14.6	14.6	51.9
	Proper cooking	41	25.9	25.9	77.8
	Professional cooks	14	8.9	8.9	86.7
	Timing	6	3.8	3.8	90.5
	Curb food theft	5	3.2	3.2	93.7
	Declined to answer	6	3.8	3.8	97.5
	Other, specify	4	2.5	2.5	100.0
	Total	158	100.0	100.0	

ENCOU1: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	59	37.3	37.3	37.3
	Hire professionals	21	13.3	13.3	50.6
	Improve hygiene	15	9.5	9.5	60.1
	Improve ration	10	6.3	6.3	66.5
	Improve timing	18	11.4	11.4	77.8
	Observe balanced diet	24	15.2	15.2	93.0
	Declined to answer	7	4.4	4.4	97.5
	Other, specify	4	2.5	2.5	100.0
	Total	158	100.0	100.0	

ENCOU2: Give five (5) recommendations which if implemented will encourage all students to eat (Recommendation 2)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	26	16.5	16.5	16.5
	Hire professionals	26	16.5	16.5	32.9
	Improve hygiene	21	13.3	13.3	46.2
	Improve ration	16	10.1	10.1	56.3
	Improve timing	18	11.4	11.4	67.7
	Secure the food	4	2.5	2.5	70.3
	Observe balanced diet	32	20.3	20.3	90.5
	Declined to answer	8	5.1	5.1	95.6
	Other, specify	7	4.4	4.4	100.0
	Total	158	100.0	100.0	

ENCOU3: Give five (5) recommendations which if implemented will encourage all students to eat (Recommendation 3)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	20	12.7	12.7	12.7
	Hire professionals	23	14.6	14.6	27.2
	Improve hygiene	14	8.9	8.9	36.1
	Improve ration	14	8.9	8.9	44.9
	Improve timing	22	13.9	13.9	58.9
	Secure the food	4	2.5	2.5	61.4
	Observe balanced diet	30	19.0	19.0	80.4
	Declined to answer	11	7.0	7.0	87.3
	Other, specify	20	12.7	12.7	100.0
	Total	158	100.0	100.0	

FOOGROUPS: List the groups of food that make a healthy diet.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All food groups	39	24.7	24.7	24.7
	Four (4) food groups	58	36.7	36.7	61.4
	Three (3) food groups	34	21.5	21.5	82.9
	Two (2) food groups	15	9.5	9.5	92.4
	One (1) food group	5	3.2	3.2	95.6
	None	7	4.4	4.4	100.0
	Total	158	100.0	100.0	

Appendix II: Frequencies: Male Respondents

Statistics							
		GENDE R	YEAST	SEKNUT MO	SEKNUT LE	SEKNUT SE	SONUTRI MO
N	Valid	97	97	97	97	97	97
	Missing	0	0	0	0	0	0

Statistics							
		SONUTRI LE	SONUTRI SE	YEARC O	CULTUR E	FAMIL Y	RELIGIO US
N	Valid	97	97	97	97	97	97
	Missing	0	0	0	0	0	0

Statistics							
		PRESSUR E	SCHOOLI N	SOCIET Y	SKIPFOO D	SATISFI ED	REAMES S
N	Valid	97	97	97	97	97	97
	Missing	0	0	0	0	0	0

Statistics							
		REAMES S2	MAIFOO DS1	MAIFOO DS2	MAIFOO DS3	RECOMM EN	ENCOU 1
N	Valid	97	97	97	97	97	97
	Missing	0	0	0	0	0	0

Statistics				
		ENCOU2	ENCOU3	FOOGROUPS
N	Valid	97	97	97
	Missing	0	0	0

Frequency Table: Male Respondents

GENDER: Gender of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	97	100.0	100.0	100.0

YEAST: Year of study of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 1	34	35.1	35.1	35.1
	Year 2	42	43.3	43.3	78.4
	Year 3	21	21.6	21.6	100.0
	Total	97	100.0	100.0	

SEKNUTMO: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Most preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	4	4.1	4.1	4.1
	Medical personnel	34	35.1	35.1	39.2
	Parents	21	21.6	21.6	60.8
	Nutritionists	14	14.4	14.4	75.3
	Lecturers	1	1.0	1.0	76.3
	Educationists	1	1.0	1.0	77.3
	NYS	9	9.3	9.3	86.6
	Administration				
	Relatives	2	2.1	2.1	88.7
	Declined to answer	7	7.2	7.2	95.9
	Other , specify	4	4.1	4.1	100.0
Total	97	100.0	100.0		

SEKNUTLE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Least preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	27	27.8	27.8	27.8
	Medical personnel	7	7.2	7.2	35.1
	Parents	2	2.1	2.1	37.1
	Nutritionists	1	1.0	1.0	38.1
	Lecturers	3	3.1	3.1	41.2
	Educationists	3	3.1	3.1	44.3
	NYS	14	14.4	14.4	58.8
	Administration				
	Relatives	5	5.2	5.2	63.9
	Declined to answer	21	21.6	21.6	85.6
	Other , specify	14	14.4	14.4	100.0
Total	97	100.0	100.0		

SEKNUTSE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Second most preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	6	6.2	6.2	6.2
	Medical personnel	9	9.3	9.3	15.5
	Parents	16	16.5	16.5	32.0
	Nutritionists	7	7.2	7.2	39.2
	Lecturers	14	14.4	14.4	53.6
	Educationists	1	1.0	1.0	54.6
	NYS	10	10.3	10.3	64.9
	Administration				
	Relatives	9	9.3	9.3	74.2
	Declined to answer	22	22.7	22.7	96.9
	Other , specify	3	3.1	3.1	100.0
	Total	97	100.0	100.0	

SONUTRIMO: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Most preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	12	12.4	12.4	12.4
	Magazines etc	9	9.3	9.3	21.6
	Internet	9	9.3	9.3	30.9
	Peers	1	1.0	1.0	32.0
	Radio programmes	3	3.1	3.1	35.1
	TV programmes	8	8.2	8.2	43.3
	Relatives	7	7.2	7.2	50.5
	Health institutions	15	15.5	15.5	66.0
	Health personnel	9	9.3	9.3	75.3
	Declined to answer	16	16.5	16.5	91.8
	Other, specify	8	8.2	8.2	100.0
	Total	97	100.0	100.0	

SONUTRILE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Least preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	11	11.3	11.3	11.3
	Magazines etc	11	11.3	11.3	22.7
	Internet	2	2.1	2.1	24.7
	Peers	5	5.2	5.2	29.9
	Radio programmes	3	3.1	3.1	33.0
	TV programmes	11	11.3	11.3	44.3
	Relatives	5	5.2	5.2	49.5
	Health institutions	6	6.2	6.2	55.7
	Health personnel	4	4.1	4.1	59.8
	Declined to answer	22	22.7	22.7	82.5
	Other, specify	17	17.5	17.5	100.0
Total	97	100.0	100.0		

SONUTRISE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Second most preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	3	3.1	3.1	3.1
	Magazines etc	5	5.2	5.2	8.2
	Internet	4	4.1	4.1	12.4
	Peers	9	9.3	9.3	21.6
	Radio programmes	4	4.1	4.1	25.8
	TV programmes	2	2.1	2.1	27.8
	Relatives	4	4.1	4.1	32.0
	Health institutions	3	3.1	3.1	35.1
	Health personnel	3	3.1	3.1	38.1
	Declined to answer	37	38.1	38.1	76.3
	Other, specify	23	23.7	23.7	100.0
	Total	97	100.0	100.0	

YEARCO: The year of study in college influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	66	68.0	68.0	68.0
	No	31	32.0	32.0	100.0
	Total	97	100.0	100.0	

CULTURE: My community culture influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	46	47.4	47.4	47.4
	No	51	52.6	52.6	100.0
	Total	97	100.0	100.0	

FAMILY: My family upbringing strongly influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	65	67.0	67.0	67.0
	No	32	33.0	33.0	100.0
	Total	97	100.0	100.0	

RELIGIOUS: My religious affiliation influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	36.1	36.1	36.1
	No	62	63.9	63.9	100.0
	Total	97	100.0	100.0	

PRESSURE: Peer pressure has influenced my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	30.9	30.9	30.9
	No	67	69.1	69.1	100.0
	Total	97	100.0	100.0	

SCHOOLIN: My schooling at high school strongly influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	50.5	50.5	50.5
	No	48	49.5	49.5	100.0
	Total	97	100.0	100.0	

SOCIETY: The society in which I was brought up influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	61	62.9	62.9	62.9
	No	36	37.1	37.1	100.0
	Total	97	100.0	100.0	

SKIPFOOD: Do some students skip to eat mess food?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	75	77.3	77.3	77.3
	No	22	22.7	22.7	100.0
	Total	97	100.0	100.0	

SATISFIED: Are you satisfied with the quantity of the ration served to students?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	22.7	22.7	22.7
	No	75	77.3	77.3	100.0
	Total	97	100.0	100.0	

REAMESS: List the six main reasons why some students do not eat mess food (Major reason)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor hygiene	8	8.2	8.2	8.2
	Poor quality food	62	63.9	63.9	72.2
	Lack of variety	3	3.1	3.1	75.3
	Poor timing	2	2.1	2.1	77.3
	Inadequate ration	8	8.2	8.2	85.6
	Peer pressure	1	1.0	1.0	86.6
	Cultural background	1	1.0	1.0	87.6
	Medical reasons	4	4.1	4.1	91.8
	Other, specify Total	8 97	8.2 100.0	8.2 100.0	100.0

REAMESS2: List the six main reasons why some students do not eat mess food (Second major reason)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor hygiene	25	25.8	25.8	25.8
	Poor quality food	17	17.5	17.5	43.3
	Lack of variety	19	19.6	19.6	62.9
	Poor timing	6	6.2	6.2	69.1
	Inadequate ration	16	16.5	16.5	85.6
	Peer pressure	3	3.1	3.1	88.7
	Medical reasons	4	4.1	4.1	92.8
	Declined to answer	1	1.0	1.0	93.8
	Other, specify Total	6 97	6.2 100.0	6.2 100.0	100.0

MAIFOODS1: List five foods which students mostly eat besides the mess food (Major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	49	50.5	50.5	50.5
	Fruits	16	16.5	16.5	67.0
	Fluids	14	14.4	14.4	81.4
	Declined to answer	3	3.1	3.1	84.5
	Other, specify	15	15.5	15.5	100.0
	Total	97	100.0	100.0	

MAIFOODS2: List five foods which students mostly eat besides the mess food (Second major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	23	23.7	23.7	23.7
	Fruits	33	34.0	34.0	57.7
	Fluids	23	23.7	23.7	81.4
	Declined to answer	3	3.1	3.1	84.5
	Other, specify	15	15.5	15.5	100.0
	Total	97	100.0	100.0	

MAIFOODS3: List five foods which students mostly eat besides the mess food (Third major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	8	8.2	8.2	8.2
	Fruits	21	21.6	21.6	29.9
	Fluids	15	15.5	15.5	45.4
	Declined to answer	23	23.7	23.7	69.1
	Other, specify	30	30.9	30.9	100.0
	Total	97	100.0	100.0	

RECOMMEN: Supposed you were asked to advise the NYS administration concerning the quality of the food served to students at the mess, what can you recommends?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balanced diet	28	28.9	28.9	28.9
	Hygiene	3	3.1	3.1	32.0
	Rations	20	20.6	20.6	52.6
	Proper cooking	25	25.8	25.8	78.4
	Professional cooks	13	13.4	13.4	91.8
	Curb food theft	2	2.1	2.1	93.8
	Declined to answer	5	5.2	5.2	99.0
	Other, specify	1	1.0	1.0	100.0
Total	97	100.0	100.0		

ENCOU1: Give five (5) recommendations which if implemented will encourage all students to eat (Recommendation 1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	43	44.3	44.3	44.3
	Hire professionals	5	5.2	5.2	49.5
	Improve hygiene	11	11.3	11.3	60.8
	Improve ration	8	8.2	8.2	69.1
	Improve timing	13	13.4	13.4	82.5
	Observe balanced diet	9	9.3	9.3	91.8
	Declined to answer	6	6.2	6.2	97.9
	Other, specify	2	2.1	2.1	100.0
	Total	97	100.0	100.0	

ENCOU2: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 2)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	14	14.4	14.4	14.4
	Hire professionals	10	10.3	10.3	24.7
	Improve hygiene	15	15.5	15.5	40.2
	Improve ration	14	14.4	14.4	54.6
	Improve timing	13	13.4	13.4	68.0
	Secure the food	2	2.1	2.1	70.1
	Observe balanced diet	19	19.6	19.6	89.7
	Declined to answer	6	6.2	6.2	95.9
	Other, specify	4	4.1	4.1	100.0
	Total	97	100.0	100.0	

ENCOU3: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 3)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	11	11.3	11.3	11.3
	Hire professionals	16	16.5	16.5	27.8
	Improve hygiene	7	7.2	7.2	35.1
	Improve ration	10	10.3	10.3	45.4
	Improve timing	14	14.4	14.4	59.8
	Secure the food	4	4.1	4.1	63.9
	Observe balanced diet	16	16.5	16.5	80.4
	Declined to answer	7	7.2	7.2	87.6
	Other, specify	12	12.4	12.4	100.0
	Total	97	100.0	100.0	

FOOGROUPS: List the groups of food that make a healthy diet.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All food groups	25	25.8	25.8	25.8
	Four (4) food groups	38	39.2	39.2	64.9
	Three (3) food groups	15	15.5	15.5	80.4
	Two (2) food groups	11	11.3	11.3	91.8
	One (1) food group	2	2.1	2.1	93.8
	None	6	6.2	6.2	100.0
	Total	97	100.0	100.0	

APPENDIX III: Frequencies: Female Respondents

Statistics							
		GENDE R	YEAST	SEKNUT MO	SEKNUT LE	SEKNUT SE	SONUTRI MO
N	Valid	61	61	61	61	61	61
	Missin g	0	0	0	0	0	0

Statistics							
		SONUTRI LE	SONUTRI SE	YEARC O	CULTUR E	FAMIL Y	RELIGIO US
N	Valid	61	61	61	61	61	61
	Missin g	0	0	0	0	0	0

Statistics							
		PRESSUR E	SCHOOL IN	SOCIET Y	SKIPFOO D	SATISFI ED	REAME SS
N	Valid	61	61	61	61	61	61
	Missin g	0	0	0	0	0	0

Statistics							
		REAMES S2	MAIFOO DS1	MAIFOO DS2	MAIFOO DS3	RECOMM EN	ENCOU 1
N	Valid	61	61	61	61	61	61
	Missing	0	0	0	0	0	0

Statistics				
		ENCOU2	ENCOU3	FOOGRUPS
N	Valid	61	61	61
	Missing	0	0	0

Frequency Table: Female Respondents

GENDER: Gender of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	61	100.0	100.0	100.0

YEAST: Year of study of the person filling the questionnaire					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 1	35	57.4	57.4	57.4
	Year 2	18	29.5	29.5	86.9
	Year 3	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

SEKNUTMO: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Most preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	1	1.6	1.6	1.6
	Medical personnel	21	34.4	34.4	36.1
	Parents	6	9.8	9.8	45.9
	Nutritionists	4	6.6	6.6	52.5
	Lecturers	4	6.6	6.6	59.0
	NYS Administration	19	31.1	31.1	90.2
	Relatives	1	1.6	1.6	91.8
	Declined to answer	5	8.2	8.2	100.0
	Total	61	100.0	100.0	

SEKNUTLE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Least preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	26	42.6	42.6	42.6
	Medical personnel	3	4.9	4.9	47.5
	Parents	1	1.6	1.6	49.2
	Nutritionists	4	6.6	6.6	55.7
	Lecturers	2	3.3	3.3	59.0
	NYS Administration	5	8.2	8.2	67.2
	Relatives	3	4.9	4.9	72.1
	Declined to answer	13	21.3	21.3	93.4
	Other , specify	4	6.6	6.6	100.0
	Total	61	100.0	100.0	

SEKNUTSE: List five people from whom you seek nutritional information in order of prevalence (the first being the most preferred and number five is the least preferred person). (Second most preferred person)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Peers	2	3.3	3.3	3.3
	Medical personnel	5	8.2	8.2	11.5
	Parents	10	16.4	16.4	27.9
	Nutritionists	5	8.2	8.2	36.1
	Lecturers	6	9.8	9.8	45.9
	Educationists	1	1.6	1.6	47.5
	NYS Administration	8	13.1	13.1	60.7
	Relatives	1	1.6	1.6	62.3
	Declined to answer	15	24.6	24.6	86.9
	Other , specify	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

SONUTRIMO: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Most preferred source)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	11	18.0	18.0	18.0
	Magazines etc	6	9.8	9.8	27.9
	Internet	5	8.2	8.2	36.1
	Radio programmes	1	1.6	1.6	37.7
	TV programmes	3	4.9	4.9	42.6
	Relatives	2	3.3	3.3	45.9
	Health institutions	10	16.4	16.4	62.3
	Health personnel	7	11.5	11.5	73.8
	Declined to answer	8	13.1	13.1	86.9
	Other, specify	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

SONUTRILE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Least preferred source)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	5	8.2	8.2	8.2
	Internet	2	3.3	3.3	11.5
	Peers	6	9.8	9.8	21.3
	Radio programmes	3	4.9	4.9	26.2
	TV programmes	1	1.6	1.6	27.9
	Relatives	6	9.8	9.8	37.7
	Health personnel	3	4.9	4.9	42.6
	Declined to answer	14	23.0	23.0	65.6
	Other, specify	21	34.4	34.4	100.0
Total	61	100.0	100.0		

SONUTRISE: List five main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred. (Second most preferred source)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nutritional books	1	1.6	1.6	1.6
	Magazines etc	7	11.5	11.5	13.1
	Internet	6	9.8	9.8	23.0
	Peers	3	4.9	4.9	27.9
	Radio programmes	2	3.3	3.3	31.1
	TV programmes	2	3.3	3.3	34.4
	Relatives	4	6.6	6.6	41.0
	Religious institutions	1	1.6	1.6	42.6
	Health institutions	6	9.8	9.8	52.5
	Health personnel	2	3.3	3.3	55.7
	Declined to answer	22	36.1	36.1	91.8
	Other, specify	5	8.2	8.2	100.0
Total	61	100.0	100.0		

YEARCO: The year of study in college influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	41	67.2	67.2	67.2
	No	20	32.8	32.8	100.0
	Total	61	100.0	100.0	

CULTURE: My community culture influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	41.0	41.0	41.0
	No	36	59.0	59.0	100.0
	Total	61	100.0	100.0	

FAMILY: My family upbringing strongly influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	37	60.7	60.7	60.7
	No	24	39.3	39.3	100.0
	Total	61	100.0	100.0	

RELIGIOUS: My religious affiliation influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	26.2	26.2	26.2
	No	45	73.8	73.8	100.0
	Total	61	100.0	100.0	

PRESSURE: Peer pressure has influenced my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	45.9	45.9	45.9
	No	33	54.1	54.1	100.0
	Total	61	100.0	100.0	

SCHOOLIN: My schooling at high school strongly influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	33	54.1	54.1	54.1
	No	28	45.9	45.9	100.0
	Total	61	100.0	100.0	

SOCIETY: The society in which I was brought up influences my diet choice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	34	55.7	55.7	55.7
	No	27	44.3	44.3	100.0
	Total	61	100.0	100.0	

SKIPFOOD: Do some students skip to eat mess food?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	53	86.9	86.9	86.9
	No	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

SATISFIED: Are you satisfied with the quantity of the ration served to students?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	31.1	31.1	31.1
	No	42	68.9	68.9	100.0
	Total	61	100.0	100.0	

REAMESS: List the six main reasons why some students do not eat mess food (Major reason)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor hygiene	2	3.3	3.3	3.3
	Poor quality food	33	54.1	54.1	57.4
	Lack of variety	10	16.4	16.4	73.8
	Poor timing	1	1.6	1.6	75.4
	Inadequate ration	2	3.3	3.3	78.7
	Peer pressure	3	4.9	4.9	83.6
	High disposable income	1	1.6	1.6	85.2
	Medical reasons	2	3.3	3.3	88.5
	Other, specify	7	11.5	11.5	100.0
Total	61	100.0	100.0		

MAIFOODS1: List five foods which students mostly eat besides the mess food (Major food)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	30	49.2	49.2	49.2
	Fruits	8	13.1	13.1	62.3
	Fluids	9	14.8	14.8	77.0
	Declined to answer	3	4.9	4.9	82.0
	Other, specify	11	18.0	18.0	100.0
	Total	61	100.0	100.0	

MAIFOODS2: List five foods which students mostly eat besides the mess food (Second major food)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	15	24.6	24.6	24.6
	Fruits	12	19.7	19.7	44.3
	Fluids	16	26.2	26.2	70.5
	Declined to answer	5	8.2	8.2	78.7
	Other, specify	13	21.3	21.3	100.0
	Total	61	100.0	100.0	

MAIFOODS3: List five foods which students mostly eat besides the mess food (Third major food)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Snacks	7	11.5	11.5	11.5
	Fruits	8	13.1	13.1	24.6
	Fluids	10	16.4	16.4	41.0
	Declined to answer	20	32.8	32.8	73.8
	Other, specify	16	26.2	26.2	100.0
	Total	61	100.0	100.0	

RECOMMEN: Supposed you were asked to advise the NYS administration concerning the quality of the food served to students at the mess, what can you recommends?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balanced diet	26	42.6	42.6	42.6
	Hygiene	2	3.3	3.3	45.9
	Rations	3	4.9	4.9	50.8
	Proper cooking	16	26.2	26.2	77.0
	Professional cooks	1	1.6	1.6	78.7
	Timing	6	9.8	9.8	88.5
	Curb food theft	3	4.9	4.9	93.4
	Declined to answer	1	1.6	1.6	95.1
	Other, specify	3	4.9	4.9	100.0
	Total	61	100.0	100.0	

ENCOU1: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	16	26.2	26.2	26.2
	Hire professionals	16	26.2	26.2	52.5
	Improve hygiene	4	6.6	6.6	59.0
	Improve ration	2	3.3	3.3	62.3
	Improve timing	5	8.2	8.2	70.5
	Observe balanced diet	15	24.6	24.6	95.1
	Declined to answer	1	1.6	1.6	96.7
	Other, specify	2	3.3	3.3	100.0
	Total	61	100.0	100.0	

ENCOU2: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 2)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	12	19.7	19.7	19.7
	Hire professionals	16	26.2	26.2	45.9
	Improve hygiene	6	9.8	9.8	55.7
	Improve ration	2	3.3	3.3	59.0
	Improve timing	5	8.2	8.2	67.2
	Secure the food	2	3.3	3.3	70.5
	Observe balanced diet	13	21.3	21.3	91.8
	Declined to answer	2	3.3	3.3	95.1
	Other, specify	3	4.9	4.9	100.0
	Total	61	100.0	100.0	

ENCOU3: Give five (5) recommendations which if implemented will encourage all students to eat
(Recommendation 3)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improve quality	9	14.8	14.8	14.8
	Hire professionals	7	11.5	11.5	26.2
	Improve hygiene	7	11.5	11.5	37.7
	Improve ration	4	6.6	6.6	44.3
	Improve timing	8	13.1	13.1	57.4
	Observe balanced diet	14	23.0	23.0	80.3
	Declined to answer	4	6.6	6.6	86.9
	Other, specify	8	13.1	13.1	100.0
Total	61	100.0	100.0		

FOOGROUPS: List the groups of food that make a healthy diet.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All food groups	14	23.0	23.0	23.0
	Four (4) food groups	20	32.8	32.8	55.7
	Three (3) food groups	19	31.1	31.1	86.9
	Two (2) food groups	4	6.6	6.6	93.4
	One (1) food group	3	4.9	4.9	98.4
	None	1	1.6	1.6	100.0
	Total	61	100.0	100.0	

APPENDIX IV: INTRODUCTION/CONSENT LETTER

Dear Participant,

I am Peter Sitima M.A. (Communication) Postgraduate student at Daystar University. I have completed my coursework and now pursuing the thesis which is the final part of my course. I am now carrying out a research. The research will enable me to fulfill the requirements the M.A postgraduate degree course to graduate. I am carrying out a study on the sources of information and perception of healthy diet among NYS College students in Kenya. You have been selected to take part in this research as a participant. I will be grateful if you could assist me fill in this questionnaire. The information provided will provide important data for academic purposes only. All information provided will be confidential and will be for research purposes only.

Thank you for your support and cooperation.

QUESTIONNAIRE FOR STUDENTS

Instructions to respondents:

This questionnaire consists of 18 question items. The purpose of the questionnaire is to collect data which will be used to answer the research questions. Be assured that the information you give will be treated with a lot of confidentiality. You are requested to observe the following.

- (i) Do not write your name anywhere on the questionnaire
- (ii) Answer each question truthfully and to the best of your knowledge.
- (iii) Kindly answer ALL questions
- (iv) In case you need any assistance you are encouraged to seek for the assistance of the researcher or research assistants.
- (v) Thank you in advance for your cooperation.

1. Gender of the person filling the questionnaire: Male () Female () other ()

2. Year of study of the person filling the questionnaire:

First () Second () Third ()

3. List five people from whom you seek nutritional information in order of prevalence. The first being the most preferred and number five is the least preferred person.

(I)-----

(II)-----

III)-----

(IV)-----

(V)-----

4. List four main sources from which you seek nutritional information in order of preference? The first being the most preferred and number five is the least preferred source.

(I)-----

(II)-----

(III)-----

(IV)-----

For questions 5 to 12 tick yes or no as it applies to you.

YES NO

(5) The year of study in college influences my diet choice () ()

(6) My community culture influences my diet choice () ()

(7) My family upbringing strongly influences my diet choice () ()

- (8) My religious affiliation influences my diet choice () ()
- (9) Peer pressure has influenced my diet choice () ()
- (10) My schooling at high school strongly influences my diet choice () ()
- (11) The society in which I was brought up influences my diet choice () ()
- (12) Do some students opt not to eat mess food? () ()
- (13) Are you satisfied with the quantity of the ration served to students? () ()

(14) List six main reasons why some students do not eat mess food.

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----
- (v)-----
- (vi)-----

(15) List five foods which students eat from outside the mess

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----
- (v)-----
- (vi)-----

(16) Supposed you were asked to advise the NYS administration concerning the quality of the food served to students at the mess, what can you recommends?

(17) Give five recommendations which if implemented at the mess, it will encourage all students to eat mess food.

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----
- (v)-----

(17) What is healthy diet? -----

(18) List five food groups that make up a healthy diet.

- (I)-----
- (II)-----
- (III)-----
- (IV)-----
- (V)-----

End of questionnaire. Thank you for your cooperation.