

**FACTORS INFLUENCING FOOD CHOICES AMONG SECONDARY SCHOOL
STUDENTS IN THIKA SUB-COUNTY, KIAMBU COUNTY, KENYA**

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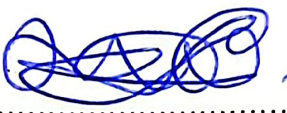
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
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DECLARATION

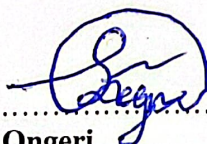
Student Declaration

This Research Project is my original work and has never been presented for a degree in any other University.

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Supervisor Approval

This Research Project has been submitted for examination with my approval as the University Supervisor.

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ABBREVIATIONS AND ACRONYMOUS

BMI	Body mass index
CDEST	County Director of Education, Science and Technology
KCSE	Kenya Certificate of secondary Education
LMIC	Low middle-income countries
LNED	Low Nutrient energy disease
MOE	Ministry of education
MOH	Ministry of Health
SPSS	Statistical package for social sciences
SCDE	Sub County Director of Education
SD	Standard Deviation
WFP	World Food Program
WHO	World health organization

DEFINITION OF OPERATIONAL TERMS

Body Mass Index (BMI) – A measure of body fat based on height and weight. It is calculated by dividing your weight in kilograms by the square of your height in meters

Food Insufficiency – Food insufficiency refers to a situation where individuals or households lack access to sufficient, safe, and nutritious food to meet their dietary needs.

Obesity – Obesity is a chronic condition characterized by excessive accumulation of body fat. It is often defined as a BMI (Body Mass Index) of 30 or higher.

Overweight – Overweight is a condition where a person's weight is above a healthy range for their height. It's often defined as a BMI (Body Mass Index) between 25 and 29.9.

ABSTRACT

This study aimed at investigating the factors that influenced food choices among secondary school students in Thika Sub-county, Kenya taking consideration on Cultural Factors, Health Considerations and School Policies. The specific objectives of the study were to ascertain the dietary preferences, identify factors that influence food choices, and to assess the influence of food choices on academic performance among secondary school student in Thika, sub-county, Kenya. The Study employed a descriptive survey research design. The target population was Secondary schools students in the Thika sub-county, with an estimated student population of 447,664 students. A simple random sampling technique was used to sample 385 respondents from 14 secondary schools. The research instruments included structured questionnaires for quantitative data collection and semi-structured interviews for qualitative data. The study used questionnaires to collect primary data that was distributed to teachers and students in school. Data collected was analysed using descriptive .A majority (70.0%) of students did not follow specific cultural or religious food practices, though the preferences of the minority with such practices must be considered value were the most influential factors in food choices, with cost, peer influence, family influence, and cultural beliefs also playing significant roles. A notable finding was that 64.3% of students believed their food choices affected their academic performance, and many perceived improved concentration and increased energy levels as the primary benefits of good dietary programs. The study highlighted that taste and flavour, availability, and nutritional. The need for comprehensive strategies to improve students' nutrition, which can lead to enhanced academic outcomes. Implementing educational programs and community initiatives focused on healthy eating can empower students to make better food choices. Evaluating the specific nutritional interventions and expanding the research to different geographic regions could offer valuable insights into the diverse factors influencing food choices among students. Such research would provide a more comprehensive understanding of dietary habits and help develop more effective strategies for improving students' nutrition and academic outcomes.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter focuses on, background of the study, statement of the problem, purpose of the study, conceptual framework, research questions, objectives, significance of the study, delimitations of the study, limitations of the study and the assumptions of the study.

1.2 Background to the Study

Food choices are influenced by several factors, including personal preferences, taste, appearance, habitual intakes, and socio-cultural factors. Poor dietary choices among secondary school students can lead to malnutrition and negative health consequences. Therefore, it is essential to identify the factors that influence food choices among secondary school students in Thika Sub-County, Kiambu County, Kenya, to promote positive dietary behaviours within this setting. The research aims to explore the factors and barriers that influence food choices within the school canteen and identify feasible strategies to promote positive dietary behaviours within this setting. The study used the ecological framework to identify multiple factors that influence pupils' selection of food in the school canteen at the individual, social, physical, and macro environment level. The study focussed on secondary school students in Thika Sub-County, Kiambu County, Kenya. Studies already show malnutrition is prevalent among students in Kiandutu, Thika Sub- County, Kiambu County. Therefore, it is essential to identify the factors that influence food choices among secondary school students in this region to promote positive dietary behaviours. The study will acknowledge the existing literature on factors that influence food choices among secondary school students. For instance, (Devine, et al, 2020) have explored the factors that influence food choices in secondary school canteens from pupil and staff perspectives. Additionally has reviewed the role of urban public food procurement in Kiambu and Machakos Counties as a

driver of food and nutrition security and sustainability. (Ngugi, 2018) has focused on the role of socio-cultural factors in influencing food choices among households in Kiambu Sub-County, Kenya.

The study will provide insights into the factors that influence food choices among secondary school students in Thika Sub-County, Kiambu County, Kenya. The findings will be useful in developing feasible strategies to promote positive dietary behaviours within this setting.

1.3 Statement of the Problem

Food choices among secondary school students have significant implications for their health and well-being. Existing studies have identified various factors that influence food choices in schools. (Skaalvik, 2007). However, there is a need to understand how these factors specifically affect secondary school students in Thika Sub-County. Poor dietary intakes among secondary school students can lead to negative health consequences .(Skaalvik,2007 Reducing the prevalence of these poor dietary intakes is a public health priority, and schools represent an important setting to promote positive dietary behaviours (Herrnstein, 1961, 1970). Therefore, understanding the timing and reasons behind food choice problems in Thika Sub-County can help develop targeted interventions.

1.4 Research Questions

- i. What are the dietary preferences among secondary school students in Thika, sub-county, Kenya?
- ii. What are the factors that influence food choices among secondary school students in Thika, Sub- County, Kenya?
- iii. How does food choices influence academic performance among secondary school student in Thika, sub-county, Kenya?

1.5 Research Objectives

1.5.1 Main Objective

To determine the factors that influence food choices among secondary schools' students in Thika sub-county, Kenya

1.5.2 Specific Objectives

- i. To ascertain the dietary preferences among secondary school students in Thika, sub-county, Kenya.
- ii. To identify factors that influence food choices among secondary school students in Thika, Sub- County, Kenya.
- iii. To assess the influence of food choices on academic performance among secondary school student in Thika, sub-county, Kenya

1.6 Limitations of the Study

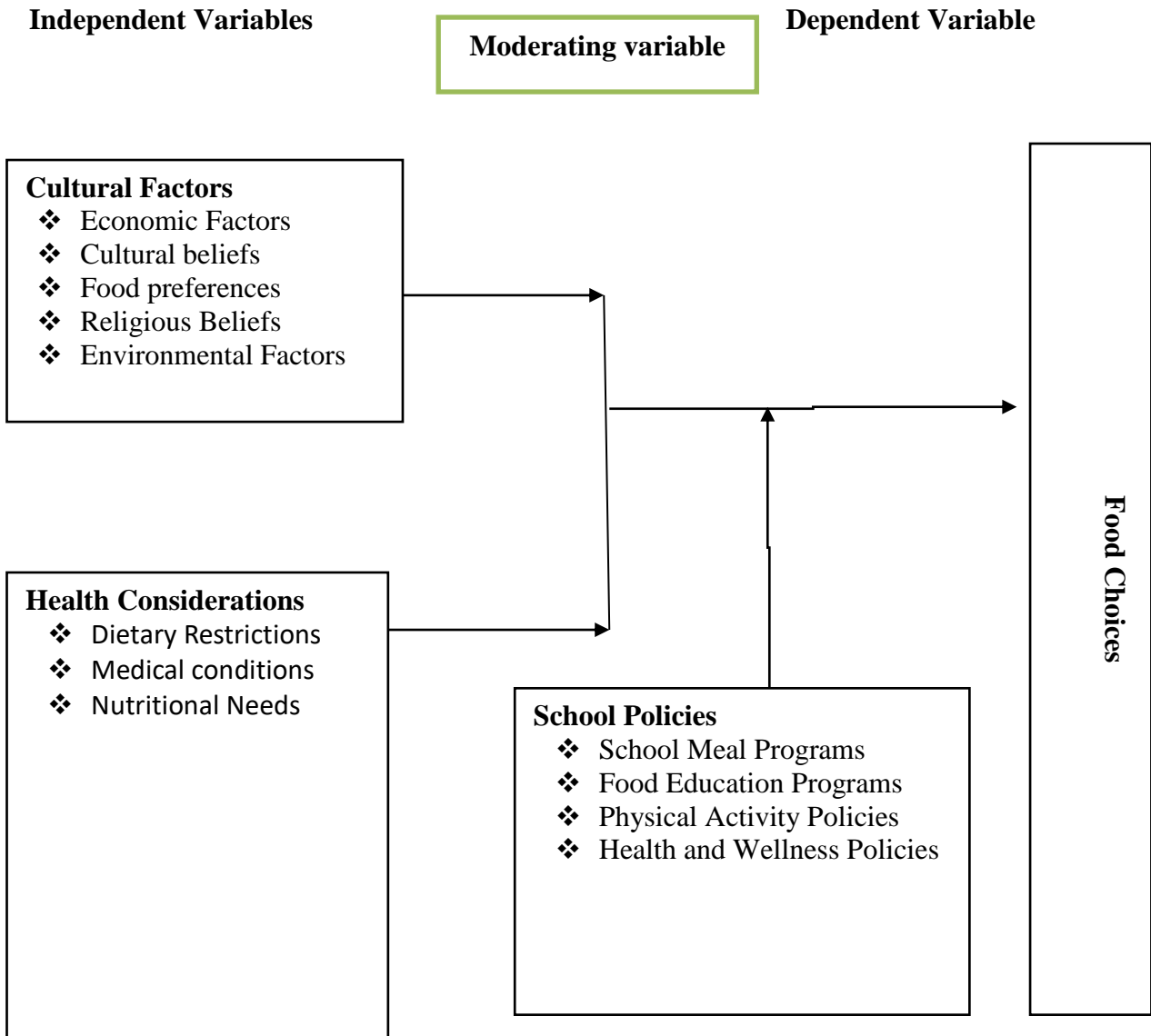
The researcher was face challenges in recruiting a representative sample of youth due to time and resource constraints. Data collected on dietary choices may be subject to self-reporting bias, as participants may not always accurately recall or report their food consumption. Seasonal variations in food availability and consumption patterns may affect the study's findings.

1.7 Delimitations of the Study

The study was conducted within Thika, Kiambu County, Kenya. The study focused on youth aged 18 to 24 years residing within this sub-county. The study investigated the influence of food choices and nutrition status among youth within the specified age range.

1.8 Conceptual Framework

Conceptual framework showing on factors influencing food choices among secondary school students in Thika sub-county, Kiambu County



1.9 Significance of the Study

The study will provide insights into the factors that influence food choices among secondary school students in the area. The study will also help to identify the most common food choices among the students and the factors that influence their choices. This information is useful in developing interventions to promote healthy eating habits among the students.

Significance of the Study:

1.10 Assumptions of the Study

That the respondents were willing to share information with the researcher and the responses received was a true reflection of their views on their food choices on nutrition status.

That the targeted respondents would give fair and honest responses to study instruments seek by the researcher freely

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will focus on variables being studied by investigating other studies on the same area. It focused on factors that influence food choices among secondary school students which were identified earlier are, to ascertain the dietary preferences, factors that influence food choices and assess the influence of food choices on academic performance among secondary school student in Thika, sub-county, Kenya.

2.2 Food Choices

The processes involved in choosing what to eat has been studied from a range of perspectives. Each perspective has a different target and purpose, resulting in new theories being developed and existing theories being applied to explain the parts of the food choice process that are of interest. Models of Individual Behaviour Early models of food choice behaviour were based on research with animals. It was found that animals could quickly learn and apply knowledge about which behaviour would result in the greatest food reward (Herrnstein, 1961, 1970) for the least amount of effort (Pulliam, 1974). When these models were applied to the eating behaviour of humans, they were unable to take in to account the complexity of the factors, which influence human consumption behaviour (Conner & Armitage, 2002). The Expectancy x Value (EV) theory is a model, which was developed to explain human decision-making. The premise of this theory is that “ individuals are motivated to maximize the chances of desirable outcomes occurring and minimize the chances of undesirable outcomes occurring” (Conner & Armitage, 2002). An individual forms an attitude towards target behaviour by evaluating the perceived likelihood that performing the behaviour will result in positive or negative outcomes. Positively evaluated

behaviours are those, which the individual perceives to be more likely to result in positive outcomes. The Theory of Reasoned Action (TRA), an extended theory of human behaviour based on the EV theory, proposes a mediator between the attitudes held regarding behaviour and the likelihood of performing the behaviour. This mediator is defined as the individual's intention. An individual can hold many different beliefs about a particular behaviour, only a subset of which can be salient at one time (Ajzen & Fishbein, 2000). Different beliefs, about the same behaviour, was more, or less, salient depending on the context. It is these salient beliefs, which predict the individual's attitude towards the behaviour and perception of social pressure to perform, or not perform, the behaviour (Conner & Armitage, 2002). Because the salience of beliefs will differ across contexts and for different behaviours, the amount of influence exerted by each factor will differ also. Interventions have been developed which target the salience of beliefs about nutritional value of foods, by providing contextual cues such as advertisements in cafeterias or supermarkets Skaalvik, S. (2007). Much behaviour require some level of skill or ability, an opportunity, or some external resource to be successfully performed. The TRA only applies to behaviours that the individual has the power to choose to perform, or not perform. To account for the level of control the individual has over whether they can, or will, perform a behaviour, Sutton, R. E., & Wheatley, K. F. (2003). added the factor of Perceived Behavioural Control to the TRA, creating the Theory of Planned Behaviour (TPB). Perceived behavioural control is the individual's perception of internal and external factors.

2.3 Factors Influencing Food Choices.

2.3.1 Culture and Religion

Culture has an enormous influence on what we eat. The world is teeming with unique cultures. Each culture comes with its own customs, social institutions, and expectations and,

of course, food. In addition, each one of these cultures influences how we eat and what we eat from the day we are born. People in different cultures consume certain foods for many reasons. Other foods, on the other hand, are discouraged. Some are even prohibited.

At times, the foods we grew up eating are not particularly beneficial, nutritionally speaking. Some people find it difficult to shift from eating traditional foods to which they have been accustomed all their lives to new ones. For this reason, it is important to make the adjustments incrementally, finding more nutritious substitutions, while still enjoying some of those traditional foods. Religion is also one of the factors that influence food choices.

Some religions encourage abstinence from certain meats such as beef or pork. Other religions frown upon the use of alcohol. Others still avoid caffeinated products, as mandated by their religious sect (Taris, 2006).

2.3.2 Family and Peers

Our family has an enormous influence on the foods we eat. As such, it is one of the most noteworthy factors that influence food choices. Specifically, our parents play an integral role in what we like to eat. According to the National Centre for Biotechnology “ children come with a set of behavioural predispositions that allow them to learn to accept the foods made available to them. As a result, children who grow up in a household that values health and nutrition are much more likely to eat balanced, nutritious foods as adults. Children who are exposed to less nutritious foods, on the other hand, have values pertaining to food selection and preferences that are shaped accordingly. This is an important observation for anyone wishing to make changes to his or her eating habits. It may, therefore, be more difficult to make certain food selections for some people. This may not be a matter of lack of willpower. Rather, it may be one borne more out of habit. From the moment we begin school, our values and choices are shaped by those with whom we associate. As we grow up and gain greater

independence, the degree to which our parents influence our food selections diminishes. The impact our families have on what we eat begins to be replaced by what we see our peers eat, particularly at school. Because we are impressionable as young children and because we like to fit in, it is very easy to emulate the behaviour of others. Frequently, we may begin to accept certain behavioural patterns as the norm. At times, this means eating foods we see others eating, regardless of if we like them. To eat more intuitively and according to our own individual needs and preferences, it is important to break free from such unquestioning conformity. This, however, is not to say that a person should never try foods he or she sees peers eating. This principle applies to selecting foods and in life. Always selecting foods simply because others are eating it may do little for self-discovery (Schleicher, 2018).

2.3.3 Physical Stage of Development

Though often overlooked or omitted, this factor influences our food choices is nonetheless important. Unquestionably, our physical stage of development affects what foods we eat and how much. A growing adolescent with a fast metabolism may require more food and with greater frequency than an older adult (Ngugi, 2018).

2.3.4 Cost and Income

Unfortunately, in many parts of the world where food is scarce it is impossible to have any choice at all when it comes to food. This is an incredibly sad fact and it certainly requires a staunch and sustained effort on humans to eradicate. For many of us, however, it is possible to have some say in what foods are bought and eaten. Without a doubt, how much food costs are an important factor that influences food choices. Frequently, how much money we have at our disposal severely restricts what food we can buy. This is especially true when foods that are more nutritious tend to cost more than heavily processed, nutrient-drained foods. With guidance from health professionals and a little self-research, learning to buy and eat nutritious

foods is no doubt possible, even on a tight budget. How much money we make is certainly one of the factors that influence food choices. With a good income, we have greater purchasing power. This power can translate to being able to afford a wider variety of food products. It is cause and effect. Nonetheless, it is important to learn to purchase food that is as nutritious as possible with the money we have (.Groot & Maassen, 2007).

2.3.5 Availability and Access

Depending on where we live, we may not have easy access to a variety of foods. In fact, we may not have access to some at all. Consequently, the food choices that are made are entirely based on what is currently available. At times, limited availability may make it difficult to eat nutritionally balanced meals. There is no doubt about that. Many remote, geographically isolated communities, in this country and many others, experience problems with food availability (Furrer& Skinner, 2003).

2.4 Factors Influencing Dietary Preferences

Students referred to the food environment, individual preferences, religion, time, and School environment as the major factors that influence the process of dietary habits change and the adaptation to the Kenyan culture.

2.4.1 Food environment.

This environment is a collection of several factors such as the place. Where food is obtained, food prices, community characteristics, restaurant proximity, store. Availability and other factors that influence individual' s food choices and eating habits (Willis &Buck, 2007).

2.4.2 Food access.

Food access, according to this study, was defined as having sufficient resources economically and physically to obtain appropriate foods for a nutritious diet. Food access is also associated with economic factors, time of immigration, and/or employment status.

(Winham, 2009). Across the focus groups, access to the fast and convenience foods were easy, while traditional food items were difficult to obtain. The factors that play the major role in food access are economics and transportation.

2.4.3 Cost of Food

Cost of Food plays a role in the dietary pattern changes. The participants from Middle East and Asia said that meat and vegetables are in the same price range in the United States, whereas in the home country vegetables are cheaper than meat.

2.4.4 Food Availability.

Food availability was defined as having available quantities of food. on a consistent basis near a person' s living area (Yusuf et al., 2001). The participants mentioned. that there are fewer traditional food ingredients available in the United States, whereas there are more American food choices.

2.5 Food Choices and Academic Performances

Relationships between nutrition and brain function have been the focus of much research. Studies have shown the impact of dietary foundations on normal brain functions. Chemical messengers within the brain called neurotransmitters have been studied in conjunction with nutrition. (Skaalvik,2007). suggested that the brain can no longer be viewed as an autonomous organ, free from other metabolic processes in the body; instead, the brain needs to be seen as being affected by nutrition, the concentration of amino acids and choline which let the brain create and use many of its neurotransmitters such as serotonin, acetylcholine, dopamine, and norepinephrine. Food consumption is vital to the brain being able to make the right number of amino acids and choline. These are two precursor molecules obtained from the blood that are needed for the brain to function normally. In a test of mental function called verbal memory, scientists found that volunteer' s abilities to remember everyday

words slowed significantly only after three weeks of low zinc. A lack of protein, also known as Protein Energy Malnutrition, led to poor school performance by children and caused young children to be lethargic, withdrawn, and passive, all of which help affect social. in addition, emotional development, Carbohydrates are commonly found in grains, fruits, and vegetables. Carbohydrates are broken down into glucose, which is where the brain gets its energy. Fluctuating levels of carbohydrates may cause dizziness and mental confusion, both of which can affect cognitive. performance. Eating a carbohydrate-heavy meal can cause one to feel calmer and relaxed. because of a brain chemical called serotonin and its effect on mood. Serotonin is created within the brain through the absorption and conversion of tryptophan. Tryptophan is absorbed within the blood and this absorption is enhanced with carbohydrates (Erickson, 2006).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the following research design, study area, target population, sampling techniques, sample size, measurement of variables, research instruments, validity of measurement, reliability of measurement, data collection techniques call mom that analysis, logistics and ethical consideration.

3.2 Research Design

The research design for this study was a mixed-methods approach, specifically a sequential explanatory design. This design combined both quantitative and qualitative methods to provide a comprehensive understanding of the factors that influence food choices among secondary school students in Thika Sub-County, Kiambu County, Kenya.

3.3 Study Variables

The independent variables included factors such as cultural belief and Health consideration, which were assessed using a Likert scale. moderating variables encompass school policies, including vegetarianism, food intolerances, and religious or dietary restrictions, which are also, evaluated using a Likert scale. The dependent variables focus on the food choices, including the type of food, frequency of consumption, and portion size, measured through multiple-choice questions

3.4 Study Area

The study was conducted in Thika Sub-County, Kiambu County, Kenya. Thika Sub-County was selected as the study area due to its diverse population, including many secondary school students, making it an ideal location to investigate the factors that influence food choices among this demographic.

3.5 Target Population

The target population for this study were secondary school students in Thika Sub-County. According to data obtained from the Kiambu County Education Department, there are a total of 213 Secondary schools in the sub-county, with an estimated student population of 447,664. The unit of measurement is the individual secondary school student.

3.6 Sampling Techniques

A stratified random sampling techniques was used to select schools and students for the study. Stratification was based on the type of school (public and private) and gender (male and female) to ensure a representative sample. A total of 123 secondary school (public and private) were selected, with 100 school for each gender category.

3.7 Sample Size

The following formula by Fischer at al 1998 was used to arrive at the desired sample size

Using Fisher formula to arrive at the desired sample size.

$$N = \frac{Z^2 \times P \times (1-P)}{d^2}$$

Where:

N = Sample Population Desired

Z = 1.96 (95% Confidence Level for Standard Normal Deviation)

P = the Estimated Proportion (0.5)

d = Margin of error (0.05)

$$= \frac{1.96^2 \times 0.5 \times (1-0.5)}{(0.05)^2}$$

$$= 384.16$$

$$= = 385$$

3.8 Research Instruments

The research instruments included structured questionnaires for quantitative data collection. The questionnaires were developed based on established scales and validated instruments to ensure reliability and validity.

3.9 Validity

To enhance validity, construction of instrument was strictly based on research study objectives. The research also ensured content validity was enhanced by reviewing related literature review of the study.

3.10 Reliability

Reliability was assessed using the questionnaire's internal consistency. This ensured that the questionnaire items consistently measured the intended constructs.

3.11 Data Collection Techniques

The primary data was collected by use of questionnaires that was distributed to respondents. Questionnaires were the most appropriate tool to use because it contains both open and close-ended questions. Open-ended questionnaire allowed free responses from the respondents without providing or suggesting any structure for replies while structured questionnaire limited the respondents. Structured questionnaire was used to avoid the responses of the respondents from being influenced from external variables compared to open ended questionnaires that will give respondents total freedom to express their views in unbiased manner, (Collis and Hussey, 2012). This offered well-focused data, which was ideal for large populations, and people who responded to questions in a minimal time and funds.

3.12 Data Analysis

The researcher employed descriptive statistical methods, specifically frequencies and percentages, to analyse the data. The analysed data was subsequently organized and presented in a structured format using tables for clarity and ease of interpretation

3.13 Logistical and Ethical Considerations

The researcher endeavoured to remain ethical in conducting the research. The opinions of the respondents were respected, and total confidentiality exercised by the researcher. The researcher included a confidentiality clause in the research instruments and makes any clarifications sought by the respondents. The researcher also requested the respondents to voluntarily participate in the study. Other ethical issues were also observed. Furthermore, no one was forced or coerced to provide information. To ensure that privacy of respondents is utmost, no personal information was collected. Finally, respondents were informed of the objectives of the study before data collection process, which is education only

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.1 Introduction

This chapter summarizes the key findings of the study on factors influencing food choices among secondary school students in Thika Sub-County, Kiambu County, Kenya, and presents recommendations based on these findings. The focus is on interpreting the results to understand the impact of various factors on students' dietary habits and academic performance, and suggesting practical measures to enhance students' nutritional well-being and academic success.

4.1 Demographic Information

Table 1: Demographic Distribution of Respondents (N=385)

Category	Subcategory	Frequency	Percentage (%)
Gender	Male	226	58.6%
	Female	159	41.4%
Age	14-15 years	105	27.3%
	16-17 years	198	51.4%
	18-19 years	82	21.4%
Level of Study	Form Two	154	40.0%
	Form Three	127	32.9%
	Form Four	104	27.1%
Key N= Number of respondents			

The gender distribution of the respondents, with 58.6% being male and 41.4% female, highlights a nearly balanced representation, which is essential for a comprehensive analysis of factors influencing food choices among secondary school students in Thika Sub-County. Gender differences in dietary preferences and behaviours are well documented, with males and females often having distinct nutritional needs and cultural influences. For example, societal expectations might lead to differences in the types and quantities of food consumed.

By ensuring an almost equal gender distribution, the study can capture a holistic view of how both male and female students' food choices are shaped, thus providing valuable insights for developing gender-sensitive nutritional interventions. The age and form distribution also play crucial roles in understanding the dietary habits of students. The respondents are evenly spread across three age groups: 14-15 years (31.7%), 16-17 years (57.1%), and 18-19 years (42.9%), allowing the study to analyse how food preferences evolve with age. Younger students may be more influenced by parental choices and peer pressure, while older students might make more independent dietary decisions influenced by their increased awareness of health and nutrition. Additionally, the distribution across different school forms, with Form Two students representing 40.0%, Form Three 32.9%, and Form Four 98.5%, enables the study to assess how academic pressures and social interactions at various educational stages impact food consumption patterns. This detailed demographic breakdown ensures that the study's findings are relevant across different age groups and academic levels, aiding in the development of targeted nutritional programs.

4.2 Dietary Preferences

4.2.1 Most Important Meal and Food Group Consumption

Table 2 Most Important Meal and Food Group Consumption (N=385)

Category	Subcategory	Frequency	Percentage (%)
Most Important Meal			
Breakfast	Male	165	42.9%
	Female	220	57.1%
Lunch	Male	66	17.1%
	Female	319	82.9%
Dinner	Male	193	50.1%
	Female	192	49.9%
Food Group Consumption			
Fruits and Vegetables	Daily	248	64.3%
	2-3 times a week	55	14.3%
	Once a week	33	8.6%
	Rarely	49	12.8%
Proteins	Daily	127	32.9%
	2-3 times a week	104	27.1%
	Once a week	82	21.4%
	Rarely	72	18.6%
Carbohydrates	Daily	220	57.1%
	2-3 times a week	94	24.3%
	Once a week	66	17.1%
	Rarely	5	1.4%
Fast Food	Daily	165	42.9%
	2-3 times a week	108	28.0%
	Once a week	79	20.6%
	Rarely	33	8.6%
Key N= Number of respondents			

The table examines the respondents' preferences for their most important meal of the day, with dinner being the most preferred by 67.1% of students, followed by lunch (27.1%) and breakfast (5.7%). This table highlights the significance of breakfast among secondary school students, possibly due to its role in providing energy and concentration for morning academic activities. The preference for different meals can be influenced by various factors such as

family routines, cultural practices, and individual schedules. Understanding the importance placed on each meal helps in identifying the critical times when students are more likely to consume nutritious food, thereby aiding in the design of effective nutritional programs and interventions. The table also illustrates how frequently students consume various food groups. The data indicates that fruits and vegetables are the most commonly consumed daily (248 respondents), followed by carbohydrates (220 respondents) and fast food (165 respondents). Proteins, while still prevalent, is consumed less frequently on a daily basis, with a higher number of respondents consuming it 2-3 times a week or once a week. This table highlights the nutritional choices of students and their inclination towards energy-providing carbohydrates.

4.2.3 Factors Influencing Food Choices

The table below ranks various factors influencing food choices on a scale from "Not at all" to "Extremely." Availability and nutritional value are rated highly as influential factors, with many students rating them as "Very" or "Extremely" important. Cost of food, peer influence, family influence, and cultural or religious beliefs also play significant roles but to a slightly lesser extent. This table highlights the complex interplay of sensory preferences, accessibility, economic considerations, social influences, and cultural beliefs in shaping students' dietary choices. Understanding these factors can help in designing interventions that address the most impactful elements affecting students' food selections.

Table 3 Factors Influencing Food Choices (N= 385)

Factors Influencing Food Choices			
Category	Subcategory	Frequency	Percentage (%)
Availability of Food	Not at all	49	12.9%
	Slightly	67	17.4%
	Moderately	88	22.9%
	Very	104	27.1%
	Extremely	77	20.0%
Cost of Food	Not at all	66	17.1%
	Slightly	77	20.0%
	Moderately	83	21.4%
	Very	90	23.4%
	Extremely	69	18.0%
Peer Influence	Not at all	60	15.7%
	Slightly	83	21.4%
	Moderately	93	24.3%
	Very	72	18.6%
	Extremely	77	20.0%
Cultural or Religious Belief	Not at all	83	21.4%
	Slightly	83	21.4%
	Moderately	71	18.6%
	Very	77	20.0%
	Extremely	71	18.6%
Key			
N= Number of respondents			

4.3. Influence of Food Choices on Academic Performance

Table five shows that 62.9% of respondents believe that their food choices affect their academic performance, while 37.1% do not. This perception underscores the recognized importance of nutrition in cognitive function and academic success. Students who perceive a strong link between their diet and academic performance may be more motivated to make healthier food choices. This awareness can be leveraged in educational campaigns to promote better dietary habits for improved academic outcomes. Table 5 also details the specific ways students believe their food choices impact their academic performance. Improved concentration (21.4%) and increased energy levels (35.7%) are the most commonly cited

effects, followed by improved mood (15.4%) and better memory (27.4%). This indicates that students are aware of the tangible benefits of good nutrition on their mental and physical states, which directly contribute to their academic capabilities. These insights can guide the development of nutritional programs that emphasize the connection between diet and cognitive functions.

The research shows that 64.3% of respondents notice changes in their academic performance with different foods, while 35.7% do not. This indicates that a majority of students are observant of how their dietary choices affect their academic outcomes, reinforcing the importance of nutrition education. For those who do not perceive a difference, there might be a need for increased awareness and education on the benefits of healthy eating. This information is crucial for designing effective nutritional strategies that can enhance academic performance through better dietary practices.

Table 5: Food Choices and Academic Performance

Category	Subcategory	Frequency	Percentage (%)
Food Choices Affect Academic Performance	Yes	242	62.9%
	No	143	37.1%
Ways Food Choices affect Academic Performance	Improved concentration	83	21.4%
	Increased energy levels	137	35.7%
	Better memory	105	27.4%
	Improved mood	60	15.4%
Key N= Number of respondents			

CHAPTER FIVE : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter provided a comprehensive summary of the key findings derived from the study, formulated conclusions based on these findings, and offered well-informed recommendations for practical application or further research. Each section was tailored to address the study objectives and provide actionable insights.

5.2 Summary

The study indicated that gender distribution among the respondents was nearly equal, with 58.6% male and 41.4% female students, providing a balanced perspective on food choices across genders. Age distribution was fairly even across the 14-15 years, 16-17 years, and 18-19 years age groups, revealing how food preferences and nutritional needs shift during adolescence. Regarding dietary preferences, dinner emerged as the most important meal for 67.1% of students, underscoring its role in providing the energy needed for academic activities. The study also found that carbohydrates were the most frequently consumed food group daily, while fruits and vegetables were consumed less frequently. A majority (70.0%) of students did not follow specific cultural or religious food practices, though the preferences of the minority with such practices must be considered value were the most influential factors in food choices, with cost, peer influence, family influence, and cultural beliefs also playing significant roles. A notable finding was that 64.3% of students believed their food choices affected their academic performance, and many perceived improved concentration and increased energy levels as the primary benefits of good dietary programs. The study highlighted that taste and flavour, availability, and nutritional. Furthermore, 58.3% of students reported noticing changes in their academic performance based on different foods.

5.3 Conclusions

- i. Traditional foods remain a staple among secondary school students in Thika; the rise of fast food consumption poses potential health risks. Addressing these dietary preferences through educational initiatives and community engagement is essential to improve nutritional outcomes and overall health for students in the region.
- ii. These insights highlight the importance of implementing targeted programs to foster healthier eating behaviors and improve food literacy among students. By addressing these influencing factors, stakeholders can work to enhance the dietary choices and overall well-being of secondary school students in Thika.
- iii. These findings stress the need for comprehensive strategies to improve students' nutrition, which can lead to enhanced academic outcomes. Implementing educational programs and community initiatives focused on healthy eating can empower students to make better food choices.

5.4 Recommendations

5.4.1 Recommendations from the Study

- i. Develop a structured survey that includes questions on students' favorite foods, meal frequency, dietary restrictions, and cultural influences. Were distributed to various schools to gather quantitative data. Organize focus group sessions with students to discuss their dietary choices, preferences, and the reasons behind them. This qualitative data can provide deeper insights into their eating habits. Assess the availability of different food options in local markets and school canteens. This can affect students' choices and preferences.

- ii. Conduct research on local food vendors and markets to understand what foods are popular and accessible to students, and how this shapes their choices. Evaluate existing school food policies and how they may encourage or discourage certain dietary choices among students. Study how seasonal availability of certain foods affects students' choices and preferences throughout the year.
- iii. Investigate how peer groups impact individual food choices and whether those choices correlate with academic performance. Utilize statistical methods to analyse data for significant patterns or correlations between food choices and academic outcomes.

5.4.2 Recommendations for Further Research

Future research should consider longitudinal studies to observe how food choices and their effects on academic performance evolve over time effectiveness. Evaluating the specific nutritional interventions and expanding the research to different geographic regions could offer valuable insights into the diverse factors influencing food choices among students. Such research would provide a more comprehensive understanding of dietary habits and help develop more effective strategies for improving students' nutrition and academic outcomes.

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APPENDICES.

Appendix i: Questionnaire.

Introduction

My name is Janes Odipo, a Degree student from Greta University. I am conducting research entitled “ Factors influencing food choices among Secondary School Students in Thika sub-county, Kiambu County, Kenya.” I request you to allow me to ask you some questions. The information you will give will be treated confidentially and anonymously used for writing the research report and will not be used for any other purpose.

Instructions

1. For the structured questions circle the correct answers and for the unstructured ones give your opinion in the space provided.
2. The information given was purely for learning purposes.

PART A: Demographic Information

1. Gender:
 - A. Male
 - B. Female
2. Age years
3. Form
 - A. Form two
 - B. Form three
 - C. Form four

SECTION B: Dietary Preferences

1. Which meal do you consider the most important in your daily routine?
 - A. Breakfast
 - B. Lunch
 - C. Dinner
2. How often do you consume the following food groups?

Fruits and Vegetables:

- A. Daily
- B. 2-3 times a week
- C. Once a week
- D. Rarely

Proteins (e.g., meat, beans, eggs):

- A. Daily
- B. 2-3 times a week
- C. Once a week
- D. Rarely

Carbohydrates (e.g., rice, bread, potatoes):

- A. Daily
- B. 2-3 times a week
- C. Once a week
- D. Rarely

Fast Food:

- A. Daily
 - B. 2-3 times a week
 - C. Once a week
 - D. Rarely
3. Do you have any dietary restrictions or preferences (e.g., vegetarian, vegan, allergies)?
- A. No
 - B. Yes
4. Yes (please specify) _____
5. Do you like or avoid any certain cuisines or dishes for cultural or religious reasons?
Please elaborate.

PART C: Factors Influencing Food Choices

Please indicate the extent to which each of the following factors influences your food choices. Use the scale below:

- i. Not at all influential
- ii. Slightly influential

- iii. Moderately influential
- iv. Very influential
- v. Extremely influential

		1	2	3	4	5
1	Availability of Food:					
2	Cost of food					
3	Peer Influence					
4	Cultural or Religious Belief					

SECTION D: Influence of Food Choices on Academic Performance

1. Do you think your food choices affect your academic performance?
 - A. Yes
 - B. No
2. If yes, how do they affect your academic performance? (Select all that apply)
 - A. Improved concentration
 - B. Increased energy levels
 - C. Better memory
 - D. Improved mood
3. Have you noticed any changes in your academic performance when you eat different types of food?
 - A. Yes
 - B. No
4. If yes, please explain how your academic performance changes with different types of food.

.....

Thanks for Your Time.

