Chapter One

Introduction

1.1 Background to the Study

Nutrition is an important part of health and well-being because women are in charge of what their families consume. In many low- and middle-income countries, like Nigeria, people often make food choices based on cultural beliefs and food-related fallacies, or "food fallacies," in addition to their economic situation and the availability of food. These false beliefs are concepts that are passed down via culture or tradition that affect how people think about, accept, or reject certain foods, even if they are based on scientific or nutritional facts[1].

Food is one of the most important things that people need. It helps keep people healthy and well[1]. But there are other things that affect motivation, quantity, frequency, and meal choice, even if the main reason for eating is to satisfy hunger, which is a physiological need. Some of these factors are hunger, cost, ease of access, emotions, culture, and social interactions[2]. So, the choices people make about food are based on a mix of things, from societal policy and human behavior to more exact disciplines like nutrition.

People's values, attitudes, and beliefs, as well as some environmental and religious variables, affect what they eat. All of these things come from culture, customs, and interactions. Food values are the rules or standards that people or groups follow regarding how much food is worth, and these rules usually have little to do with how healthy the food is. For example, brown rice has more nutrients than white rice, but most Nigerians would prefer eat white rice, even if brown rice is enriched[2].

People's "food attitude" is how they act, feel, or think about food. Their surroundings and advertising, especially on radio and TV, can change their food attitude. People's nutritional status

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is greatly affected by the dietary habits and attitudes they have since these factors affect the diet they pick. Sometimes, people can be malnourished even when there is enough food available because some social groups in the community won't eat the things that make up a balanced diet[2].

Food can be linked to comfort, safety, status, indulgence, denial, companionship, or health. It has emotional significance and is often used to show off or to express oneself. So, the cultural group in a town has a big effect on what people consume. Each group has its own ways of doing things, such as what foods are good for people of different ages and what foods are not. Over time, misinformation about food has changed because of things like changes in society, how people shop, and developments in communication technologies. The internet has transformed how information on food is shared, making it easier for misleading information to proliferate quickly. Blogs, news outlets, and social media platforms now spread false information more extensively than ever before, often without going through the usual scientific checks and balances. People have criticized the food industry in the past for promoting incorrect information. To sell things, marketers have often made false claims, which has made people unsure about the safety and nutrition of food[3].

In the news and on social media, food and nutrition are hot subjects. Social media is everywhere now, which has given competent or credentialed professionals in the scientific world additional ways to communicate with clients and the public. It has also made things harder. Health and wellness gurus, or people who say they are experts, use social media to get attention by telling interesting stories, getting others to follow them, and changing people's minds by providing (often) false information on food and nutrition. This can lead to the spread of false information, which hurts democracy and makes people less likely to support policies that are based on science or evidence[3].

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Food fallacies are very common in Nigeria because of ethnic traditions, religious conventions, and stories that have been passed down through the generations. For instance, some groups think that eating eggs makes kids more promiscuous, while others think that pregnant women eating snails could make their unborn offspring lazy or lethargic. Even though there is no real proof that these ideas are true, they nonetheless exist and affect how people eat, especially women in rural and semi-urban markets[1].

Oje Market, which is in the North East Local Government of Ibadan, is a historical and commercial center where many different types of women come together every day to do business. These women who work at the market sell food, but they also make important decisions about what their families eat. Because they are both caregivers and economic agents, they have a lot of power to change the way people in the community eat[3]. But a lot of them still act on food fallacies that have been passed down through stories, religious teachings, and personal experiences.

Researchers have found that misunderstandings about food might cause health problems and nutritional deficiencies. For example, cultural taboos that keep people from eating foods that are high in nutrients, such eggs, meat, and some vegetables, can cause mothers and children to not obtain enough protein, iron, and vitamins[4]. These food taboos are often stronger during important times, like pregnancy and breastfeeding, when women are most likely to be lacking in nutrients[2]. Because of this, these kinds of dietary fallacies can have a big effect, leading to problems like low birth weight, anemia in pregnant women, and stunted growth in children[1].

Also, the market women's food views aren't set in stone; they change over time because of what their friends say, how they understand their religion, and how they interact with other people in the market. These encounters are a way for people to support or sometimes reject

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specific food beliefs. But not a lot of research has been done on how these women deal with the conflict between their traditional beliefs and modern nutritional knowledge[1].

The fact that social media is everywhere has given clinician scientists new and interesting avenues to connect with clients and talk about critical themes related to food and nutrition. But social media has also made things harder. Its platforms may be used to spread both false information and true information. Food and nutrition are especially good places for false information to spread in a time when there is so much information available. Even though people have never had more access to scientific information, they are now more likely to see false claims, pseudoscientific explanations, and stories about food and its impact on health that are based on business interests[3].

Food misinformation includes a wide range of false or misleading statements on nutrition, from simple mistakes to lies meant to trick people. A lot of these claims have to do with the health dangers or benefits of certain meals, components, or eating habits. Some of the false information about food comes from real confusion about complicated nutritional science, but a lot of it is spread for commercial or ideological reasons that may not be in the best interests of public health[5].

1.2 Statement of the Problem

Even though public health education has improved and people have more access to nutritional information, many Nigerian communities still hold on to food fallacies. Market women at Oje Market, Ibadan, still spread food fallacies that affect what they and their families eat. People don't often examine these beliefs because they are seen as having cultural power and are accepted by the community. People keep refusing to eat nutrient-rich foods like eggs, snails, or some vegetables because they think they are bad for their health, morals, or behavior[2].

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These kinds of misconceptions aren't only the result of not knowing; they're a major obstacle to improving nutrition. For example, children who shun protein-rich meals like eggs because of beliefs about early sexual maturation have become undernourished and have had trouble with cognitive development[6]. Pregnant women are also known to limit their diets for no good reason by avoiding items they think may harm the unborn child. This puts them at risk of not getting enough micronutrients and makes their pregnancies more likely to go badly[6].

Adding to the problem is that market women are nutritional leaders in their own homes and in the community as a whole. They are not just people who buy food; they are also important sellers and sources of information. When these women believe and spread false information, the effects go beyond their own homes and affect public health and nutrition trends in the region[2].

There is a big gap in what we know about how these beliefs affect the food choices and eating habits of women in traditional markets like Oje Market. Most nutrition programs have been too broad and haven't taken into account how cultural beliefs affect how people eat. Nutrition education efforts may keep failing to reach their goals if they don't deal with the social and cultural roots of food fallacies.[1]

Lastly, this study aims to take a close look at the types and levels of food fallacies that Oje Market women have and how they affect their meal choices. It aims to give evidence-based information that can help shape culturally appropriate actions to clear up misunderstandings, encourage healthy eating habits, and, in the end, enhance the nutritional outcomes of this group of people[2].

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1.3 Justification of the Study

While numerous studies have examined general dietary patterns and nutritional status in various populations, few have specifically focused on how misconceptions about food influence consumption decisions among this economically important demographic. Market women represent a unique population that bridges the gap between food production/distribution and household consumption, making their dietary behaviors particularly relevant to understanding broader food system dynamics[2].

The practical importance of this study lies in its potential to inform the development of more effective nutrition education and behavior change interventions. Understanding the specific food fallacies prevalent among market women and their sources can help nutrition professionals and public health practitioners design targeted programs that address these misconceptions directly. This is particularly important given that traditional nutrition education approaches that ignore existing beliefs and practices often fail to achieve lasting behavior change.

Market women's dietary choices have implications that extend beyond their individual health outcomes. As household food managers and community influencers, their food beliefs and practices can affect the nutritional status of their families and influence food-related behaviors within their communities. Additionally, their position as food vendors means that their understanding of food safety, storage, and nutritional value can impact the quality of food available to market customers[7].

The economic significance of this study should not be overlooked. Food fallacies may lead to inefficient food purchasing decisions, resulting in suboptimal allocation of limited household food budgets. Understanding how misconceptions influence food choices can

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contribute to strategies that help families make more cost-effective and nutritious food decisions, potentially improving household food security[7].

This research also has important implications for policy development. The findings can inform government initiatives aimed at improving nutrition education and food safety practices in traditional markets. Given the significant role that traditional markets play in Nigeria's food system, interventions targeting market women could have substantial population-level impacts on dietary quality and health outcomes[3].

Furthermore, this study addresses the cultural context of nutrition, which is often overlooked in nutrition research. By examining food fallacies within their cultural and social context, this research contributes to a more nuanced understanding of how cultural beliefs interact with nutritional knowledge and behavior. This cultural sensitivity is essential for developing interventions that are both effective and culturally appropriate.

The study also contributes to the growing body of research on nutrition transition in sub-Saharan Africa, where traditional food systems are increasingly influenced by urbanization, changing economic conditions, and exposure to new information sources. Understanding how food fallacies evolve and persist in this changing context provides valuable insights into the dynamics of nutrition transition[3].

1.4 Aim and Objectives of the Study

The primary aim of this study is to examine the influence of food fallacies on dietary choices and consumption patterns amongst market women at Oje Market in Ibadan North East Local Government Area , Ibadan.

Specific Objectives

1. To identify food fallacies prevalence among market women in Oje market, Oyo State

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2. To assess the influence of these fallacies on their dietary choices among market women in Oje market, Oyo State
3. To examine the relationship between food fallacies and socio-demographic status of the market women.
4. To examine the sources food fallacies come from and how they spread.

1.5 Research Questions

1. What is the prevalence of food fallacies among market women in Oje Market, Oyo State, and how do these fallacies influence their dietary choices?
2. What relationships exist between food fallacies and the socio-demographic characteristics of market women (e.g., age, education, income, religion, marital status) in Oje Market?
3. To assess the influence of these fallacies on their dietary choices among market women in Oje market, Oyo State

1.6 Hypotheses

$H1_o$: There is no significant prevalence of food fallacies among Oje Market women in North East Local Government, Ibadan.

$H2_o$: There is no significant relationship influencing dietary choices among Oje Market women.

$H3_o$: There is no significant relationship between food fallacies and consumption patterns among Oje Market women.

1.7 Significance of the Study

This study; Influence of Food Fallacies on Dietary Choices and Consumption Patterns Amongst Oje Market Women in North East Local Government, Ibadan, Oyo State is significant due to several reasons. First, it talks about a culturally sensitive but frequently ignored factor that

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affects health and nutrition in Nigeria: how food fallacies affect how people eat. Many nutrition-focused programs don't take into account how much traditional beliefs affect food choices, especially for women in informal marketplaces. By focusing on market women in Oje Market, this study adds to the expanding corpus of localized information that recognizes the social and cultural aspects of nutrition and food intake[8].

Second, this study is important for public health. Market women not only supply food for their own families, but they also give nutrition advice to other women, customers, and community members in an informal way. People in this group can have wrong ideas that affect whole communities, passing down bad eating habits from one generation to the next. The study can help public health professionals develop targeted, culturally appropriate initiatives that aim to dispel fallacies and encourage better choices by knowing about people's ideas and what motivates them[9].

This study also has effects on policy. Government agencies, non-governmental organizations, and development partners working on mother and child health can use the data from this study to help shape nutrition-related policies and programs. It can also help create health education programs that are more relevant to traditional market settings and community health outreach. Including culturally relevant information in policy and education frameworks will make interventions more successful and long-lasting[9].

From an academic point of view, this study adds to the small amount of research that has been done on the relationship between culture, gender, and nutrition in Nigeria. It gives future researchers a starting point if they want to look into similar topics in other areas or include men, teens, or people living in cities to the study. It also connects anthropology, public health, and

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nutrition science by looking at how traditional and symbolic belief systems affect how people eat every day[9].

This study also gives the people who take part more influence. The project encourages a participatory approach to knowledge development by including Oje Market women in conversations about food attitudes and choices. This kind of involvement can make consumers think about their actions, which could lead some of them to rethink and possibly change unhealthy eating habits. In this sense, the research extends beyond just being an academic study; it also helps people modify their behavior and enhance the health of their community[10].

1.8 Scope of the Study

This study aims at how food fallacies affect the eating habits and choices of women who sell at Oje Market in North East Local Government, Ibadan. It will explore the influence of Food Fallacies on Dietary Choices and Consumption Patterns in this population. Specific areas of focus within this scope may include:

The use of a descriptive survey design to look at how food fallacies affect the eating habits and choices of women in Oje Market in North East Local Government, Ibadan. Questionnaires are randomly given to a group of people who have been chosen to answer them. Some of the study's drawbacks are that it can't cover a vast area because it is limited to a certain LGA in Ibadan, Oyo State, and some participants didn't want to take part.

1.9 Limitation of the Study.

The study states that it has several flaws. This includes:

1. **Geographical Scope Single-site sampling**: Focusing on Oje Market in North East LGA, Ibadan, limits generalizability to other markets, LGAs, or regions with different cultural norms, food environments, or socioeconomic profiles.

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2. **Participants Not Wanting to Participate**: Some participants did not want to take part in the study.
3. **Language Misinterpretation**: Since the study took place in Ibadan, Oyo State, where the Yoruba language is the main language of communication, the questionnaire had to be translated orally to the Yoruba language for respondents who did not understand English.The study faced a limitation regarding the language barrier between the researcher and the respondents, particularly due to the necessity of translating the research instrument during data collection

1.10 Operational Definition of Terms

1. **Food Fallacies:** Erroneous beliefs or misconceptions about food that lack scientific backing but influence dietary choices and practices.
2. **Dietary Choices:** Decisions made regarding what foods to consume, in what quantities, and in what combinations.
3. **Consumption Patterns:** Regular habits and practices related to food intake, including frequency, timing, and context of meals.
4. **Market Women:** Female traders operating in Oje Market, involved in buying and selling various commodities, including food item.
5. **Nutritional Status:** The condition of health as determined by the intake and utilization of nutrients, often assessed through anthropometric measurements, biochemical tests, and dietary intake analysis.
6. **Food Taboos:** Cultural prohibitions against consuming certain foods or food combinations, often rooted in traditional beliefs or religious practices.

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7. **Nutritional Knowledge:** Understanding of basic principles of nutrition, including food groups, nutrients, and their functions in the body.
8. **Food Security:** The condition in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

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Chapter Two

Literature Review

2.1 Conceptual Review

Food fallacies, also known as food fallacies or nutritional misconceptions, are ideas about food and nutrition that lack proper justification or contradict established scientific data, nevertheless are seen as true by individuals[1]. These misunderstandings span a wide array of ideas, including baseless assertions regarding food combinations, nutritional attributes, and the perceived health impacts of particular foods or dietary habits.

The spread of food misconceptions is especially evident in settings with restricted access to evidence-based nutritional data, a strong dependence on traditional knowledge systems, and the impact of informal information networks[2]. These fallacies frequently arise from the convergence of cultural beliefs, personal anecdotes, and the spread of unverified information via social networks and media platforms.

2.1.1 Fallacies

In the broadest sense, fallacies are wrong ideas or beliefs that are often founded on bad reasoning or logic. Food fallacies are common misunderstandings about the health, moral, or physiological effects of certain meals that are based on culture or tradition. These fallacies have a big impact on the food choices and eating habits of many Nigerian communities. These dietary beliefs are commonly passed down from one generation to the next among market women. They are profoundly founded in ethnic and spiritual traditions and sometimes take precedence over scientific nutritional advice in everyday life. Even when facts or science show them to be wrong, they still believe them. In the context of food and nutrition, fallacies are often fallacies or conventional beliefs that are deeply rooted in culture and say that specific meals are good or bad for your health, even when they don't have any real nutritional value. These food fallacies aren't

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just things that people get wrong; they're beliefs that are passed down through generations through oral tradition, cultural norms, and community support[3].

Food fallacies are ideas about food and nutrition that are not backed up by scientific facts but have a big impact on how people eat and make decisions. These false beliefs are often passed down from generation to generation and are strongly rooted in local customs, values, and conventions. In many places, like Nigeria, food fallacies show themselves as taboos, fallacies, or rules that say what, how, when, and by whom specific foods can be eaten[4].

Philosophers have studied fallacies in logic for a long time as arguments that sound convincing but aren't true. Aristotle was the first to divide fallacies into two groups: formal (logical errors) and informal (content-based) fallacies. When it comes to nutrition, informal fallacies often show up as hasty generalizations, incorrect cause-and-effect thinking, or appeals to tradition. For example, "Our ancestors didn't eat snails, so they must be bad for you[5]."

Food fallacies are tightly linked to spiritual beliefs, taboos, and superstitions in many traditional African societies, such as Nigeria. Some foods are called bad not because of scientific research but because of how they make people feel or how they are linked to other things. Some groups, for example, think that eating snails while pregnant will make the baby slow or dumb, while others think that young girls should stay away from eggs to keep them from acting sexually before they are ready[6]. These ideas are wrong not because they are meant to be wrong, but because they are based on false assumptions that don't have any scientific support[6].

Confirmation bias is when people pay greater attention to experiences that support their previous views and ignore evidence that goes against them. This is one reason why fallacies stick around. Also, social reinforcement in families and among friends tends to make these ideas

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seem normal, which makes it hard for people, especially those who don't have easy access to formal education or health knowledge, to question or confront them[7].

Also, it's crucial to remember that not all errors come from bad intentions or lack of knowledge. In a lot of cases, they come from trying to understand health problems when there isn't a scientific explanation for them. Before contemporary nutrition research, people used what they saw and what they thought to be true to figure out what foods were "safe" or "dangerous" to eat. These ideas were eventually written down in cultural stories and accepted as true[8].

For the women at Oje Market, these mistakes are not merely wrong ideas; they are part of a larger cultural logic that guides how they make decisions about cooking, eating, and taking care of their health every day.

Food fallacies are different from common misunderstandings since they are usually systemic, held by whole communities or ethnic groups, and are reinforced by cultural traditions. They are generally supported by people in power, such as elders, traditional healers, or religious leaders. This makes them less likely to alter or be corrected by science. People in Nigeria often believe things about food that aren't true. For example, they think that pregnant women shouldn't eat snails because it will make their baby lazy, or that kids shouldn't eat eggs because it might make them steal or be sexually promiscuous. People take these ideas seriously, even if they are not based on science, and they affect what people eat every day[9].

Many food fallacies come from people trying to figure out how nutrition and health work before science came along. Before people knew anything about medicine, they made up rules about what to eat based on stories, symbols, and spiritual connotations. Over time, these concepts grew ingrained and started to change the way people ate and the rules of the community. For

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example, people may still avoid certain foods when they are sick because they think they will make them spiritually dirty, even when there is proof that these foods are good for their health[4].

Food fallacies also change depending on where you live and who you are. People who live in cities and have higher education may be less likely to believe these things because they have better access to health education. However, false ideas still exist in some form even in modern cities. On the other hand, rural and traditional market settings like Oje Market in Ibadan likely to have more of these ideas. This is mostly because people there are less educated, have less access to nutritional counseling, and rely more on traditional knowledge systems[10].

2.1.2 Classification of Food Fallacies

Recent literature highlights various categories of food fallacies which commonly influence dietary behaviour:

Compositional Fallacies : This pertains to misunderstandings regarding the nutritional makeup of foods, including assumptions about the protein levels in particular goods or the existence of detrimental chemicals in widely consumed products[11]. Examples include the assumption that certain foods are intrinsically "toxic" or that food combinations might nullify nutritional advantages.

Temporal Fallacies: These pertain to erroneous assumptions regarding the timing of food intake, encompassing notions about ideal eating schedules, dietary practices throughout particular life phases, or seasonal dietary limitations that are unsupported by scientific evidence[11].

Physiological Fallacies: These refer to erroneous assumptions regarding the interaction of foods with biological functions, including misconceptions about metabolism, digestion, or the body's capacity to assimilate specific nutrients[11].

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Cultural and Traditional Fallacies: These denote dietary assumptions grounded in cultural customs that may contradict modern nutritional science, especially common in nations with robust traditional food systems[11].

2.1.3 Overview on Types of Foods Associated with Fallacies

Animal protein sources, especially snails, are one of the most prevalent types of foods that people think have symbolic and physiological consequences. For example, in Yoruba culture, many people think that eating snails while pregnant can make the child grow up to be lazy, have trouble speaking, or not move about much[1]. Snails are very good for you because they are abundant in iron and protein and low in fat. However, this idea makes pregnant women and nursing moms less likely to eat them[8]. Some people also keep eggs away from kids because they think they might turn into thieves or be excessively demanding. This is because eggs are seen as a "luxury" item that makes people greedy if they get them too early in life.

Tuber-based foods, including yam and cassava, are also affected by false beliefs. Some women in the Oje Market think that eating too much yam can make them spiritually barren or make it harder to have a baby. This is not substantiated by medical studies, but it is nevertheless common in pre- and post-natal diets[9]. People also sometimes stay away from palm oil during certain diseases or spiritual cleanses because they think it makes traditional medicine less efficient or makes some herbal mixes less effective[10].

It's not just cultural differences that can lead to misunderstandings about fruits and vegetables, which are generally thought to be good for a balanced diet. For instance, people think that okra can make school-age kids "dull" or "forgetful," and that eating pineapple in the early stages of pregnancy can trigger a miscarriage[11]. These false ideas make it harder to include

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a variety of nutrients in meals, especially for low-income people who already have trouble eating a balanced diet because of money issues.

Oral traditions, informal guidance from older people, religious teachings, and even misconstrued personal experiences all help to support these false beliefs. While education and living in cities have changed some of these ideas, they are still held by many local market women, many of whom are informal traders with limited access to formal nutrition instruction.

Fallacy: "Religious dietary restrictions are merely outdated health codes"

Some commentators reduce religious food traditions to primitive health regulations, ignoring their complex spiritual and cultural dimensions. This reductionist view mischaracterizes these practices and their meaning to believers.

Fallacy: "Religious dietary practices are nutritionally inadequate"

Traditional religious diets—from Mediterranean kosher to South Asian Hindu vegetarianism have supported population health for millennia. Studies of Seventh-day Adventist vegetarians, for instance, show positive health outcomes compared to the general population. Religious food traditions represent profound expressions of faith, identity, and community that deserve respect. Simultaneously, nutritional science offers valuable insights for health promotion. Food misinformation emerges when these domains are placed in unnecessary opposition or when claims from one domain inappropriately intrude into the other.

By fostering dialogue that respects both religious traditions and scientific evidence, we can reduce misinformation while honoring the diverse ways humans find meaning through food. The most productive approach recognizes that religious food practices primarily serve spiritual and cultural purposes, while remaining open to scientific examination of their potential health implications.

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2.1.4 Impact of Food Fallacies in Choice of Foods

Food fallacies, which are sometimes passed down through generations and are deeply rooted in culture, can have a big effect on people's eating habits and health outcomes, and occasionally they can even make things worse. In informal economic situations like the Oje Market in the North East Local Government Area of Ibadan, women often choose food choices based on traditional beliefs rather than nutritional research. These beliefs, which are often passed down by oral tradition, religious teachings, and community customs, make it very hard to eat a wide range of foods, especially when you're pregnant, a baby, or sick[4].

One of the biggest problems with food fallacies is that they keep people from eating foods that are high in nutrients. For instance, in a lot of Yoruba communities, people think that young children shouldn't be given eggs since it can make them thieves or too greedy[12]. This assumption often stops caregivers from giving kids eggs, which are great sources of high-quality protein and important micronutrients like choline and vitamin B12. This could make them more likely to be malnourished and have cognitive delays[12].

Some mothers also avoid snails because they think they might make their child slow or dull in speech or behavior[12]. This is because snails are high in iron and protein and low in fat. Because of this, women miss out on a cheap, easy-to-find, and healthful source of protein when they need it most.

Food fallacies have a big effect on nutrition and public health. These ideas can cause people to not get enough of certain nutrients, especially youngsters, pregnant women, and older people. When people avoid foods that are high in important nutrients because of cultural misconceptions, they may become malnourished, have a weaker immune system, and have poor developmental outcomes[12]. Food fallacies can make people less likely to follow dietary advice

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based on research, which makes public health efforts less effective unless they are culturally appropriate and adapted to the area[12].

To fight food fallacies, nutrition education programs need to be adjusted to the situation and include a part that teaches people about other cultures. Just giving people factual facts isn't always enough; programs need to cooperate with community leaders and respect local beliefs to replace damaging fallacies with correct knowledge. This shows how important it is to be culturally competent in nutrition and public health education[13].

2.1.5 Food Fallacies in the Nigerian Context

Cultural Dimensions of Food Beliefs

In the digital age, false information about food has spread like wildfire. Influencers, social networking sites, and websites all make false claims about nutrition, diets, and food safety. Food falacies and lies have been around for a long time. Over time, several diet trends, dietary ideologies, and nutritional theories have come and gone in prominence.

Culture affects what people eat in many ways, including family size, religion, and tradition. Socio-cultural elements that affect food and nutrition include material technology, implicit ideologies and symbols, and the way they all fit together in a unique way. For most individuals, eating is more about culture than nutrition. For example, a plant or animal can be safe to eat in one culture but not in another. There are various combinations of foods that will gives the same nutritional effects, which is one of the cultural elements that affect how people eat.

Food fallacies are false ideas or wrong information regarding the health consequences, nutritional value, or preparation of certain foods or dietary habits. These false beliefs can come from a number of places, such as old beliefs that have been passed down through generations, stories that people tell each other, misinterpretations of scientific research, exaggerated news

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stories, and even commercial strategies[4]. If these false beliefs keep on, they could lead to bad food choices that could leave individuals or a community lacking in nutrients, make them more susceptible to chronic diseases, and make health worse overall[5].

Beliefs are one of the numerous things that affect how people eat. They come from a collection of ideas that a person accepts as true. Food fallacies are beliefs that are based on nutritional ideas that are not well supported by scientific data or even go against it. However, the person believes them to be true. A lot of the beliefs that are out there come from false information, and the fact that people don't have access to accurate information and expertise about nutrition is what causes diseases like metabolic syndrome, hypertension, diabetes, atherosclerosis, and heart disease. Food fallacies are prevalent and significantly influence Nigeria, a nation characterized by diverse ethnicities and traditional dietary practices. These wrong ideas are often passed down from one generation to the next, supported by cultural standards, and kept alive by communal practice[2].

In similar Nigerian situations, people often believe that pregnant women shouldn't eat certain foods, that some food combinations are bad for you, that the nutritional value of food is based on its price rather than its actual nutrient content, and that traditional ways of cooking are always better than modern ones[3,4]. These errors can lead to nutritional imbalances, discourage the use of healthful foods, and perpetuate detrimental eating patterns. Food taboos and misconceptions significantly contribute to the nutritional deficiencies among already vulnerable populations in Nigeria.

Misconceptions about food have been attributed to traditional history, culture, and illiteracy. People have wrong ideas about the following foods: veggies like Celociaspp (soko) and Oriri, rodent meat, orange, snail, periwinkle, cowpea, meat, and egg. People think that these

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foods can give the body the nutrients it needs. When these wrong ideas about food are very important, it will be found that most people don't get enough of the nutrients that are linked to these foods, which will always affect how they eat. These wrong ideas about food have effects that make people not want to eat, especially those who don't have much or any education.

Some of the effects that certain foods have on the body are:

1. Eating Celociaspp veggie (Soko) and Oriri will make you deaf, make your lips red, and make you sick in a bizarre way.
2. Eating snails when pregnant will make the baby neither smart or intellectual.
3. When young kids eat eggs and meat, they can summon the thieving spirit.

A youngster who is not allowed to eat eggs and meat to stop them from stealing or getting worms in their system can still become sick from other foods or from not cleaning their hands well. This will also lead to disorders that are caused by a lack of protein and slow growth and development in the youngster[3].

Food fallacies come from historical customs that may be cultural, religious, legal, or anything else, such not being allowed to eat certain foods. These then become habits, food limitations, preferences, and customs that people don't challenge, which are also known as taboos and are different in each country. False information about health claims and nutritional values typically leads to a distorted public understanding, which can damage health outcomes and consumer trust in food systems.

The North East Local Government of Ibadan, where Oje Market is located, has a lot of people from different social and economic origins. It's important to know how much food fallacies affect the dietary choices of market women because they play such an important role in shaping the community's food systems and health behaviors. Not only will this help with making

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health interventions that are sensitive to different cultures, but it will also show how grassroots nutrition education can be more effective.

Nigeria's diverse cultural landscape provides a complex environment for the manifestation of food fallacies. The country's rich traditional food systems, encompassing over 250 ethnic groups, each with distinct dietary practices and beliefs, create multiple pathways for the development and perpetuation of food misconceptions[2].

Research conducted in southeastern Nigeria has documented significant prevalence of food taboos and fallacies among women, particularly regarding pregnancy and child-rearing practices.

It was found that approximately 37% of women in their study avoided certain foods during pregnancy due to traditional beliefs and food taboos, with no significant relationship observed between this avoidance and maternal education levels. This finding suggests that food fallacies may persist across educational strata within the population[14].

Contemporary Nutritional Challenges

The Nigerian food environment is currently experiencing significant transitions that may contribute to the proliferation of food fallacies. The nutrition transition, characterized by shifts from traditional diets to more processed and packaged foods, has created uncertainty about optimal dietary practices[12]. This transition, coupled with rising food inflation rates that reached 40.53% in May 2024, has intensified the need for informed dietary decision-making among Nigerian consumers[13].

The economic pressures facing Nigerian households have particular implications for market women, who must navigate both personal dietary choices and business decisions regarding food products. The intersection of economic constraints and nutritional misconceptions may result in suboptimal dietary patterns that affect both individual and family health outcomes.

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2.1.6 Mythology and Prevalence of Food Fallacies

Mythology is a big part of how food fallacies are made and spread, especially in cultures where traditional ways of knowing have a big impact on everyday life. A lot of the fallacies about food come from spiritual, symbolic, or moral stories that try to explain natural events, build community identity, or enforce social standards. In Nigeria, food is more than just something to eat; it is part of cultural and spiritual beliefs that often say what is okay and not okay to consume[14].

Elders, parents, and traditional healers usually pass on food fallacies from one generation to the next. People don't often dispute them, especially in rural or semi-urban areas where traditional authority is still entrenched. For instance, in a lot of Yoruba communities, people think that eating snails while pregnant can make a child slow or not smart. Some tribes also tell young girls not to eat eggs to keep them from becoming sexually promiscuous. This idea has no validity in nutritional science but continues to be used as a way to control people[15]. These beliefs are useful for teaching morals, but they also lead to a lot of people not getting enough nutrients, especially women and children.

In Nigeria, the number of food fallacies varies by location, religion, literacy level, and socioeconomic class. Research has found that people in communities with less formal education and less access to healthcare are more likely to believe in food-related fallacies[14]. In the North East Local Government Area of Ibadan, where the Oje Market situated, traditional beliefs are quite strong among market women. They often provide food and informal nutrition advice to their families and communities.

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Adewale's research showed that more than 60% of women at traditional markets in southern Nigeria believed in at least three food fallacies, and these beliefs had a direct effect on how they bought and cooked food. This shows how big the problem is and how much mythology affects actions connected to nutrition. Food fallacies may change with time and may even include new false information; such false beliefs spread through social media or casual conversations. This makes it increasingly harder to fix them.

Religious rituals also help spread food misconceptions. Some sects don't allow people to eat certain animals or foods because of their spiritual beliefs. These beliefs, which are founded on doctrine, often coincide with cultural fallacies. In the past, some of these beliefs may have had sanitary or environmental reasons for being held, but using them without rigorous evaluation in modern dietary settings may do more harm than good[15].

It's important to note that food fallacies aren't just found in Nigeria or Africa. Similar things happen all across the world, especially in rural or indigenous societies where traditional ways of knowing are still strong. But in Nigeria, the mix of ethnicity, religion, and cultural history makes these ideas very complicated and deeply held.

It is important for public health workers and policymakers to know where food fallacies come from and how common they are. It makes it possible to create culturally sensitive solutions that don't completely discard traditional ideas but instead work with them in a positive way. So, nutrition education initiatives need to include storytelling, community engagement, and local influencers to effectively bust fallacies and encourage people to eat healthier[16].

Food fallacies not only limit the range of foods we eat, but they also lead to diets that are out of balance. For example, in older classification systems, some foods are thought to be "hot"

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or "cold," and people are only allowed to eat them depending on how they think their body is "state." Some people think that eating fruits or drinking cold water after giving birth may slow down healing or make the woman sick. Because of this, these people may not get enough of important vitamins like vitamin C, which is necessary for healing wounds and keeping the immune system strong.

In addition, traditional healers, elders, and even religious leaders often support these false beliefs, which makes it hard to fight them with regular nutrition education campaigns[17]. Because of this, current health and nutrition messages typically go against firmly held ideas, which makes them less effective and less likely to reach older or less formally educated women.

The overall effect of these false ideas is to limit the variety of foods people can eat, which is a key part of proper nutrition. People, especially women and children, are more likely to get sick from malnutrition if they don't eat a variety of meals from all the main dietary groups, such as proteins, carbs, fats, vitamins, and minerals. These include anemia, stunted growth, and weakened immunity. In market-based communities like Oje, where women are typically the main food suppliers for their families, these attitudes can affect not only what they eat, but also the nutrition of whole families.

2.1.7 Classification of foods that are associated with fallacies

In many traditional Nigerian cultures, food fallacies don't just apply to single foods; they often apply to whole groups of foods. This leads to a lot of wrong ideas about how these foods affect health, morals, or spirituality. These beliefs have a big impact on how market women in Oje Market, Ibadan choose, prepare, and share food in their homes. They also lead to nutritional inadequacies and a lack of variety in their diets.

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Animal-based proteins, such snails, swine, cattle, and eggs, are one type of food that is often linked to false beliefs. People often have spiritual or moral reasons for not eating these items. For instance, many Yoruba women think that eating snails while pregnant can make children slow or lead them to develop more slowly[18]. Eggs are commonly kept from kids because people think they might make them steal or want too many expensive goods. However, eggs are high in protein and other micronutrients[2]. Some people don't eat pork for religious or cultural reasons, and even when it's not against their religion, they may think it's dirty or morally wrong.

Another group that is often misrepresented through misconceptions is fruits and vegetables. Some fruits, such watermelon and pineapple, are thought to trigger miscarriage or severe bleeding if eaten while pregnant or on your period[3]. Even though okra is high in fiber, folate, and vitamin C, it is supposed to make kids dull or forgetful, which is why it is not often included in school lunches. Some people think that leafy greens "cool the womb" or slow down healing, thus they may also avoid them when recovering from giving birth.

Food fallacies also involve the group of starchy and tuber foods that includes yam, cassava, and plantain. Some people think that eating too much yam can make you infertile or spiritually barren[3]. Even though these beliefs aren't based on science, they typically affect how people arrange their meals, especially before and after giving birth.

Some people think that oils and fats, such palm oil, make herbal remedies less effective, thus they are occasionally limited. Because of this, they are not allowed to eat meals when they are sick or doing spiritual purification, even though they require fat for energy and to absorb fat-soluble vitamins.

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People sometimes get the wrong idea about legumes and grains, which are significant sources of protein and fiber. Some people think that beans make too much gas and should be avoided during pregnancy or while you're sick[2]. Breastfeeding women may stay away from groundnuts because they think they can make babies have diarrhea or bloating[4].

2.1.8 Concept of Dietary Choices

Dietary choices are the decisions that people or groups make about what kinds of food they eat, how often they eat, how much they eat, and how they eat in general. A lot of things, such culture, money, personal tastes, health beliefs, food availability, religious traditions, and the environment, all work together to affect these decisions. Among market women populations, these choices are further complicated by their dual role as both consumers and food retailers, requiring them to balance personal dietary preferences with commercial considerations[18]. In short, food decisions aren't just based on biological necessities; they're also shaped by social, cultural, and psychological factors[19].

From the point of view of nutrition science, what you eat is one of the most important factors that affect your health and happiness. The kinds and quality of foods people eat can have a big effect on their risk of getting non-communicable diseases like obesity, diabetes, heart disease, and micronutrient deficiencies. A balanced intake of macronutrients and micronutrients, following scientifically proven dietary guidelines and nutrition recommendations, is often what makes a healthy diet.

But in many low- and middle-income nations, like Nigeria, what people eat is often more influenced by their culture and their lack of money than by what they know about nutrition. Culturally based food preferences may not be based on nutrition. In certain tribes, for example, starchy foods like yam, cassava, or rice make up most of their meals, while protein-rich

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foods are eaten very little or not at all because of fallacies or taboos[20]. In these situations, food fallacies might make people think that things are healthy or okay to eat when they really aren't, which makes it harder to get them to maintain a balanced diet.

Your socioeconomic standing has a big effect on what you eat. People with higher incomes tend to eat a wider range of foods that are good for them since they can get more information about health and dietary choices. On the other hand, groups with less money may choose foods based mostly on how cheap and easy they are to find, which typically means they don't get the best nutrition[21]. In many Nigerian markets, like Oje Market in Ibadan, women's food choices are affected by both cultural standards and the fact that they have to feed big families on small budgets.

Food literacy, or the capacity to grasp nutrition information and use it to make smart food choices, is another important part of choosing what to eat. Food fallacies have an even bigger effect in rural and semi-urban Nigerian areas because people don't know much about food. People who don't have access to trustworthy nutrition education may have to rely on what they learned from family or friends, which often includes false assumptions about food.

Family influence, tradition, and projected health results are some of the psychosocial elements that affect dietary choices. For instance, if a woman grew up in a home where particular foods were banned or linked to sickness or bad luck, she is likely to take those ideas with her and employ them in her own family, even if they don't have any scientific basis.

To really get what dietary choices mean in Nigeria, you need to look at them from several angles, such nutrition science, anthropology, sociology, and public health. Dietary habits are not simply about what each person likes; they are also shaped by larger social structures, historical

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stories, and communal values. So, interventions that want to enhance nutrition and health outcomes must look at both the cultural and structural elements that affect food choices.

2.1.9 Impacts of Food Fallacies on Consumption Patterns

Food fallacies don't just affect the choice of certain foods; they also have a bigger effect on how people eat in general, especially in traditional and market-based communities like Oje Market in North East Local Government, Ibadan. The frequency, amount, time, and combination of meals that people eat every day determine these consumption patterns. When people make decisions about what to eat based on erroneous assumptions instead of how healthy the food is, they often end up eating too much of the same thing and having long-term health problems.

Food fallacies make Yoruba women and many other Nigerian women avoid particular types of food on a regular basis. For example, some people shun animal-based proteins like snails, swine, and eggs because of spiritual or moral reasons. This makes them depend on starchy foods like cassava, yam, and rice. Eating too many carbs and not enough proteins and micronutrient-rich foods can lead to an imbalanced diet that is often low in important amino acids, iron, zinc, and B-vitamins[22].

Food misconceptions also affect how people eat over different seasons. Many people think that eating fruits like pineapple or watermelon while pregnant, on your period, or sick can lead to problems like miscarriage, too much bleeding, or diarrhea[22]. These ideas make people less likely to eat fruit all year round, even when there is a lot of it. This leads to seasonal vitamin shortages that can be bad for health, especially for women and children.

Another big problem is that people eat the wrong foods when they are sick. When people are sick, they often choose not to eat healthy foods on purpose because they think these meals

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might "feed the disease" or "interfere with herbal treatment." This happens a lot with fatty foods, vegetables, and meals high in protein. As a result, people, especially those who are sick or recuperating from childbirth, eat meals that don't have enough nutrients when their bodies need extra dietary support.

Food fallacies also affect when people eat and whether or not they miss meals. Some women who work in the market don't eat in the morning or before they go to work because they think that eating early can make them less attentive or give them less energy[13]. This has been associated to poor blood sugar control, lower cognitive performance, and general tiredness, especially in women who do hard work in trade without getting enough food.

There is also a social aspect to these patterns of consumption. Cultural food fallacies can lead to some meals being avoided or provided only to certain groups at community events, depending on their age, gender, or status. This means that food is not shared fairly within families, with adult men often getting more than women and children. This makes the risk of malnutrition even higher for some populations[13].

2.1.10 Relationship Between Food Fallacies and Food Consumption Patterns

There is a complicated and multi-faceted link between food fallacies and eating habits. Cultural, psychological, and social variables all have a big impact on how people eat. Food fallacies, which are often based on old ideas, fallacies, and misunderstandings, can have a big effect on what people eat by deciding what is acceptable or taboo in a certain culture[14]. People in many regions of Nigeria, especially the Oje Market neighborhood of Ibadan, not only believe these false ideas, but they also affect their everyday eating choices.

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Food fallacies change the way people eat by either limiting or encouraging the eating of specific foods. For instance, many African societies believe fallacies about how certain foods might be bad for your health. In various Nigerian societies, it is a common misconception that eating eggs will make people promiscuous, especially young women[15]. This notion has a direct effect on what people eat. For example, it can stop people, especially women, from eating eggs, even though they are a good source of protein and vitamins. Also, beliefs about how bad specific kinds of fish are for you, like catfish, can make people avoid them in favor of less healthy options, which can lower the quality of their diet as a whole.

Dietary fallacies can also affect how people eat by encouraging dietary taboos. For example, in Nigeria, many communities have rules forbidding eating certain foods during pregnancy or at certain times in life[16]. This might lead to diets that aren't balanced. Some groups tell pregnant women not to consume particular fruits or vegetables because they think they would hurt the baby. These taboos can stop women from eating a wide variety of foods that are important for the health of both mothers and children. This can lead to poor nutrition and the continuation of health problems related to food[17].

Cultural food fallacies help keep gender-based dietary restrictions going, which affects how food is shared in homes. Some Nigerian families expect women and children to eat less healthy foods, generally putting men's and older people's tastes first[18]. These kinds of behaviors, which are founded on false ideas about food and health, lead to imbalances in diet that impair both individual and group nutrition.

Food fallacies have a psychological effect that makes things even worse. People who believe in food fallacies a lot are more inclined to stay away from specific foods, even if those foods are good for them or their culture. People typically avoid these foods because they are

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afraid of them or don't understand them. They may think of them as "dangerous" or "impure." For example, in some Nigerian tribes, eating snail flesh is thought to make people infertile, therefore people avoid it a lot, even though snails are a wonderful source of protein and other nutrients[19].

Food fallacies also affect health-related decisions by changing how public health campaigns work. Even the best health promotion efforts may not work or face resistance when food misconceptions are common. People may ignore scientifically sound nutritional advice if it goes against their deeply held views about food.

2.2 Dietary Choices and Consumption Patterns

Dietary choices refer to the decisions individuals make regarding what foods to consume, in what quantities, and in what combinations. These choices are influenced by a complex interplay of factors including biological, psychological, social, economic, and cultural determinants[20]. Consumption patterns represent the habitual ways in which individuals structure their food intake, including meal frequency, portion sizes, and food combinations.

Dietary choices represent complex decision-making processes influenced by multiple factors including taste preferences, cultural norms, economic constraints, health beliefs, and social influences. The Food Choice Process Model developed by Furst et al. has been widely applied to understand how individuals navigate these multiple influences when making food decisions[18].

Recent research on Nigerian dietary patterns reveals significant diversity across regions and demographic groups, with traditional foods remaining central to most diets while processed and packaged foods gain increasing prominence, particularly in urban areas. The Agricultural and Food Economics study found large shortfalls in consumption of iron, vitamin B12, and

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riboflavin among Nigerian populations, highlighting the nutritional implications of current dietary patterns.

Market women represent a unique population in terms of dietary choices due to their occupational exposure to diverse food products, irregular meal patterns due to work demands, and potential influence of customer preferences on their own food choices. Limited research has specifically examined the dietary patterns of market women, though studies of informal sector workers suggest they often face challenges in maintaining regular, nutritious meals due to time and resource constraints[21].

It was found that dietary choices in Nigeria are increasingly shaped by urbanization, globalization, and socioeconomic factors, leading to what has been termed the "nutrition transition." This transition is characterized by shifts from traditional diets high in complex carbohydrates and fiber to more westernized diets high in refined carbohydrates, added sugars, and fats[21].

It was proposed that a food choice process model that conceptualizes dietary decisions as the result of life course experiences, influences, and personal food systems. This model helps explain how food fallacies become integrated into individual food decision-making processes and why they may persist even when contradicted by scientific evidence[19].

2.3 Knowledge, Attitude and Perception on Food Fallacies

Food fallacies continue to exist among many groups of people, especially market women in culturally rich places. This is intimately linked to their knowledge, attitudes, and perceptions (KAP) regarding food and health. These three factors have a big impact on how people get, understand, and use knowledge about food. They often make the difference between following nutritional advice and sticking to old food beliefs.

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In traditional contexts, women often learn about food and nutrition through a mix of informal learning, cultural legacy, and personal experience. Studies demonstrate that even though some women may know the basics of healthy eating, their understanding is often insufficient or influenced by traditional views passed down from elders or religious teachings[22]. For example, a lot of market women know that eggs are good for you, but because of firmly held cultural ideas, they might not give them to their kids because they are afraid of how they would act.

People's beliefs about food fallacies are mostly shaped by how much they trust the knowledge systems in their communities. Many women think that traditional beliefs are more reliable than current nutritional rules, especially when respected community authorities like elders, traditional healers, or spiritual leaders support them[3]. People who think this way are quite likely to follow food taboos, even when they hear scientific knowledge that goes against what they believe. Additionally, the fear of being made fun of by others, spiritual implications, or bad health effects makes people stick to food fallacies even more.

Perception, or how people understand and assign meaning to information about food, is also a big part of how false ideas stay alive. Many women who work in the market think that some foods have spiritual or symbolic connotations. People don't just think of snails as slow-moving animals; they also think of them as carriers of bad traits that can be passed on to unborn children if eaten during pregnancy. Also, the idea that fruits like pineapple are "hot" and can trigger miscarriage affects when and how people eat them[3].

These KAP characteristics are greatly affected by how much education someone has and how much formal health instruction they have had. Studies have shown that women who have

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more knowledge or who have been taught about nutrition during pregnancy are more likely to challenge food fallacies and be willing to follow scientific dietary advice. On the other hand, women who haven't had much formal education are more inclined to hold on to traditional views and pass them on to subsequent generations[13]. Also, things like money, access to healthcare, and food security might affect how dietary beliefs are kept or changed. When people can't get to healthcare easily, they rely on traditional knowledge to make health-related choices, such as what to eat.

2.4 Socio Economic Profile and Perception on Food Fallacies

Socioeconomic aspects are very important in how people see and follow food fallacies, especially women in informal market economies like Oje Market in North East Local Government, Ibadan. A person's economic situation, amount of education, job, access to media, and exposure to healthcare all have a big impact on how they think about and act on conventional ideas about food[5]. They are also less likely to pay attention to new nutritional information that is spread through health campaigns.

People's income and economic status also affect how they see and use food fallacies. Women with lower incomes may be more likely to believe in food fallacies as a way to deal with the fact that they can't afford to eat what they want. Women with more money, more food choices, and better access to healthcare guidance may be more willing to break food taboos if they go against nutritional advice[5].

Food fallacies proliferate and get stronger because of people's jobs and where they work, especially for women who work in the informal sector, such market traders. Market settings are social hubs where people learn and share culture every day. Because of this, women who work

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in markets often both receive and spread false information about food. In a place like Oje Market, where people are close to each other and talk to each other a lot, people share and strengthen their opinions about food through encounters with their peers. This shared support provides food fallacies cultural authority, even if they aren't scientifically true.

People's access to health care and dietary knowledge also vary a lot depending on their socio-economic position. Women from higher socio-economic backgrounds are more likely to go to antenatal clinics, talk to qualified health professionals, and get educational materials that challenge dangerous food taboos. On the other hand, women in poorer areas may depend on traditional birth attendants, herbalists, or older women who often spread old or wrong ideas about diet. The fact that people have different levels of access to health information leads to unequal exposure to evidence-based dietary knowledge[4].

Exposure to the media also affects how people of different social and economic backgrounds see things. Women who can use the radio, TV, the internet, or smartphones are more likely to see modern health campaigns, dietary advice, or shows that refute common food fallacies. But in low-income urban markets like Oje, where many women may not have regular access to these services, traditional fallacies continue to be the main stories around food.

Also, religious and cultural ties, which are often linked to social and economic position, affect how people think about food. Some religious teachings, for example, may make taboos about pork, alcohol, or fasting even stronger, making the link between food and health even more complicated. Women from more conservative or traditional backgrounds may be less likely to adopt new ways of thinking about nutrition if they seem to go against long-held spiritual or moral beliefs.

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Demographic Profile Impact on Food Fallacies Beliefs

In communities that are mostly made up of people from the same ethnic group or culture, cultural beliefs and practices are very important to how food is interpreted. Food is not just a biological need for the Yoruba people; it is also a way to express moral, spiritual, and social values. For instance, many people think that pregnant women should stay away from foods like snails, okra, or pineapple because they are linked to bad outcomes like miscarriage, slow babies, or difficult delivery. People don't frequently challenge these cultural stories because they respect the knowledge of their ancestors and the authority of tradition.

Age is a demographic element that has two effects. On the one hand, elder women typically keep ethnic food beliefs alive by teaching them informally in homes and marketplaces, which makes them stronger. On the other hand, younger women, especially those who have been to school or lived in cities, may be less likely to believe in these things and more open to evidence-based nutrition. But younger women often go along with these misconceptions out of respect for older people or fear of social punishment, even when they know they are not true.

Gender roles also make food fallacies stronger; Women are the main cooks and decision-makers about food in many Yoruba homes. This makes them important players in either keeping or questioning misconceptions. But males can change some dietary taboos, especially those that have to do with religion or being a man. For example, some beliefs say that women shouldn't consume certain parts of meat (such the gizzard or head) out of respect for male family members. This could make it harder for women to get protein-rich foods[14].

Being married can change how closely people follow food fallacies. Married women, especially those who live with their in-laws, may feel more pressure to follow traditional eating rules, especially while they are pregnant or breastfeeding. On the other hand, single or widowed

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women may have more freedom when it comes to what they eat, even though they may still follow long-standing cultural conventions.

Race and where you live (rural or urban) are some things that affect how common food fallacies are; People who grew up in rural areas are more likely to stick to conventional dietary ideas because they don't have as much access to other sources of information like health education campaigns, the media, or urban social networks. People who live in cities, especially those who live in varied, multi-ethnic areas, may be more exposed to a wider range of foods and be more able to question common fallacies[6].

False information is called misinformation, disinformation, or a mix of the two. Misinformation is information that is wrong or missing that can drive people to make mistakes because of carelessness, unconscious biases, or even a mistake[1].

Food misinformation contains lot of misleading content, from innocent misconceptions to deliberate disinformation campaigns. It includes:

1. False health claims about specific foods or diets
2. Misrepresented scientific studies or cherry-picked data
3. Conspiracy theories about the food industry or regulatory bodies
4. Pseudoscientific explanations of food's effects on the body
5. Exaggerated benefits of specific nutrients, supplements, or diets

Influence of Food Fallacies on the Eating Patterns and Dietary Requirements

The influence of food fallacies on eating patterns and dietary requirements is a significant concern, especially in settings where traditional beliefs about food intersect with modern nutritional needs. In communities like Oje Market in Ibadan, where food taboos and misconceptions are deeply rooted in cultural practices, these fallacies often lead to suboptimal

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eating habits, particularly in vulnerable groups such as pregnant women, children, and the elderly. These misconceptions not only affect the quantity and quality of food consumed but also hinder the fulfillment of nutritional requirements necessary for maintaining health6.

One of the most profound impacts of food fallacies is the limitation of food diversity in the diets of affected individuals. For example, proteins and essential micronutrients, which are vital for growth, immune function, and overall well-being, may be omitted from the diet due to cultural restrictions on certain food items. In Oje Market, many women believe that eating foods like snails, eggs, or meat during pregnancy or breastfeeding can cause miscarriage or poor infant health. This belief often results in undernutrition among pregnant and lactating women who may already be at risk of nutrient deficiencies. Consequently, they may fail to meet the increased nutritional demands of pregnancy, leading to iron deficiency anemia, protein-energy malnutrition, and low birth weight in infants[7].

Similarly, children's diets are also significantly influenced by food fallacies. For instance, some communities discourage the consumption of eggs, fish, and certain fruits, based on the misconception that these foods lead to behavioral issues or excessive weight gain. Such fallacies lead to underfeeding and inadequate intake of essential nutrients such as vitamin A, omega-3 fatty acids, and calcium, which are critical for children's physical and cognitive development[2]. The avoidance of these foods may contribute to stunted growth, poor academic performance, and weakened immune function among children[7].

Moreover, dietary habits shaped by food fallacies often lead to imbalanced nutrient intake, favoring foods that are believed to be "safe" based on traditional beliefs, while excluding those that are more nutritionally complete. For example, many starchy foods like yam, cassava, and plantains are consumed in excess because of the belief that they are "safe" or "spiritually neutral"

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foods. While these foods are excellent sources of energy, they are often consumed at the expense of foods that provide essential protein, fat, and micronutrients, leading to dietary imbalances that do not meet the body's full nutritional requirements[7].

In the case of elderly populations, food fallacies are often compounded by age-related changes in metabolism and digestive function. Beliefs that certain foods are harmful to the elderly (e.g., dairy, meat, or spicy foods) may prevent them from consuming nutrient-dense foods. This restriction often results in protein malnutrition, which can exacerbate issues like muscle wasting, poor bone health, and immune system weakness[4]. Moreover, many elderly individuals rely on traditional knowledge passed down through family members, which may not always align with contemporary understanding of healthy aging.

The avoidance of fats, specifically palm oil, due to its association with spiritual impurity or uncleanliness, further exacerbates the nutrient deficiencies seen in these populations. Palm oil, a rich source of vitamin A and omega-3 fatty acids, is a vital part of many West African diets and contributes to the absorption of fat-soluble vitamins. Avoiding such foods can result in deficiencies in key nutrients, leading to night blindness, increased susceptibility to infections, and poor wound healing.

Food Fallacies and the Vulnerable

In general, the word "taboo" means a conviction that a set of people shouldn't be among other individuals, places, or activities. Food taboos are a sort of these taboos. They are unwritten social restrictions that are mostly founded on religious or historical grounds that control what people in a community eat. Barfield said that there could be up to 300 causes for a specific avoidance[15].

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For instance, in some regions of Nigeria, pregnant women are not allowed to consume snails because people think that if the mother eats snails during pregnancy, the kid would be very hungry when it is born. Others said that eating reptiles was bad since they thought the baby would crawl instead of walk on time. Most of the taboos don't have any scientific basis, and they often keep the person who follows them from eating a healthy diet. There are many dietary taboos in different parts of Nigeria[15].

The UNICEF(United Nations Children's Fund) Food-Care Health conceptual framework says that cultural norms, taboos, and beliefs are some of the main causes of malnutrition. Food taboos are particularly widespread in poor communities, especially in Sub-Saharan Africa. Pregnant and breastfeeding mothers often follow these rules more strictly to protect their babies from what they think are detrimental effects of these foods[15].

It looks like most of the Nigerian food taboos are meant for kids, mothers, and pregnant women. The meals that are generally tabooed are ones that are high in protein. These people, unfortunately, needed more protein than the adult men who spread the taboos. Women and children frequently eat the leftovers. Most of the time, especially in rural regions, the leftovers go bad since they are stored without refrigeration. The proverb "One man's food is another man's poison" means that what one group of people finds delicious may not be acceptable to another group of people, and in some situations, it may even be against the law for that group of people to eat it[23].

Information Sources and Knowledge Transmission

Digital communication technology has made it much easier for food misinformation to spread. Social media sites, in particular, have made it easier than ever for dubious dietary claims to spread quickly. Information sources and different types of media are very important and have

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many different effects on spreading and keeping food misinformation, such as food fads and fallacies. They are the channels via which false or misleading information about food, nutrition, and health gets to the public, which has a big impact on what people believe about food and how they eat. To come up with good ways to fight food misinformation, you need to know what each of them does[21].

There are a number of things about the digital media ecosystem that make this happen: Food misinformation spreads through a number of digital channels, each with its own set of rules that make it easier for it to spread:

Traditional Knowledge Systems

Traditional food knowledge systems serve as significant sources of dietary understanding that have sustained societies for centuries. The dissemination of this knowledge is at risk of misinterpretation and the inclusion of baseless beliefs with legitimate nutritional practices. The difficulty resides in differentiating between evidence-based traditional methods and cultural beliefs that may not conform to modern nutritional research. Traditional media usually follows journalistic standards, but sometimes they accidentally spread false information by sensationalizing stories, focusing on early research results without giving them enough context, or giving too much attention to unqualified "experts."[22].

Modern Information Networks

The widespread adoption of modern communication technology has opened new avenues for nutritional education and the dissemination of food fallacies. Social media platforms, informal networks, and commercial advertising could encourage the spread of unproven dietary assertions, especially in environments where formal nutritional education is scarce.

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Market environments, shown by Oje Market, represent distinct data ecosystems where traditional understanding, commercial objectives, and informal communication networks converge. Grasping the dynamics of information flow within these situations is essential for understanding the emergence and perpetuation of food fallacies among market women[14].

Many influencers push dietary trends or goods based on their own experiences instead of scientific proof. This makes it much harder for people looking for genuine information. A lot of the time, social media influencers advocate nutrition advice and goods without having the right qualifications or making conflicts of interest clear. Because people think they are real and have parasocial interactions with their followers, their assertions can be more convincing than those of traditional health authority. The internet is an open space where anyone can post information, no matter how accurate it is. Because there are no gatekeepers, false assertions are able to spread as though they are true. Personal blogs and websites that focus on certain dietary beliefs can become very popular and have a lot of power[15].

Many social media influencers don't have any nutrition training, but people trust them more than trained professionals. Making money from selling supplements, diet plans, and sponsored material can lead to conflicts of interest.

2.5 Gender Dimensions of Dietary Practices

Gender issues are essential for comprehending dietary choices and consumption patterns, especially in environments where cultural norms affect food allocation within homes. Research has recorded cases where nutritional fallacies led to gender-specific dietary behaviours, exemplified by the notion that men naturally necessitate greater nutrient consumption than women, resulting in women consuming "last and least," especially during crises[2].

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Among market women, gender dynamics may be particularly intricate, as their economic autonomy from trading activities may afford them enhanced control over household food decisions, while concurrently exposing them to a variety of food-related information and misinformation via their commercial networks.

Social Media

Information on social media has the potential to reach billions of people across the globe in a short amount of time. One key component of this information sharing is that anyone can create and/or share any kind of information they want to, whether or not it is true. The spreading of misinformation can become a dangerous game, especially in regards to sharing misinformation about health, specifically nutrition.

Most researchers agree that social media can be defined as various platforms created by anyone for anyone that allows for the sharing of content, creation and communication. It allows for interactions and networking across many different levels making this a core component of social media[22]. Users are able to communicate about an array of topics with millions of people from around the world[20]. It was concluded that social media has redefined communication and collaboration by increasing a space for virtual knowledge and a self-help community. They found that communal identity drives engagement which leads to user satisfaction[5].

Social media has become an integral part of modern life, with millions of people using various social media platforms every moment for communication, recreation, information gathering, and sharing views and opinions. Among various social media platforms, Instagram, YouTube, X (formerly Twitter), and TikTok have emerged as the most powerful platforms for discussing political views, promoting health behaviors, discussing healthcare practices, and spreading information on the perceived health benefits of different dietary patterns. One major

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problem related to social media use is the lack of content regulation, which often leads to the rapid spread of misinformation to a large, diverse audience. Such malpractice is particularly harmful when it comes to health and nutrition, as people's trust in misinformation on these topics can lead to significant public health crises[6].

Because social media allows for the exchange of user generated content over a wide range of platforms that can reach millions of users, the rise of "influencers" has followed. The term "influencers" has just recently been coined to describe a social media user that shares their ideas, beliefs and recommendations with a large number of followers. Influencers are able to influence their followers because people perceive individuals who are relatable on social media as trustworthy sources of information[37]. Influencers are an important component of social media to understand because the more social presence one has, the larger the social influence that person has on people's behavior[38]. Influencers are key sharers of nutrition misinformation on social media because they can easily spread nutrition misinformation especially if they do not have proper nutrition education.

Social media consists of different platforms people can share and create content through. Popular platforms include Facebook, Twitter, Instagram, Tik Tok, Snap Chat, YouTube and Pinterest. These platforms allow users to share pictures, graphics, vidoes, stories, captions and comments. For example, on Instagram an individual can share a picture(s) or a video(s) to their feed which is permanently published on their account or they can share a picture(s) or video(s) to their story which is temporarily published for 24hours. These pictures or videos can contain words and captions. Other individuals can also add comments to permanent posts on user's accounts. This illustrates how information can be shared and exchanged on a social media

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platform. Most platforms allow for users to share pictures, videos, stories, comments and captions however each

platform has a main reason for sharing. For example, Pinterest and Instagram are predominantly picture sharing platforms while Tik Tok and YouTube are predominantly video sharing platforms. Twitter predominantly allows for the exchange of comments, phrases and quick stories. Facebook predominantly shares stories, comments and pictures. Altogether these platforms were created for the exchange and sharing of information. It is important to understand what kinds of platforms people are sharing information on to understand how and why people use social media, especially in regards to nutrition information.

Individuals use social media for various reasons and make accounts for reasons ranging from personal to business. People make personal accounts on social media because they want to gain rewards by making good impressions and want to create an image that fits their identity. Ultimately, they want a presence in cyberspace[9]. Social media gives its users a space where they can feel a sense of belonging and access social support while creating attachment to others[10].

Individuals are able to keep up with long or short distance friends and family, news and daily updates, latest fashion trends, reviews and recommendations among many other reasons. Additionally, using social media allows for people to find solutions to problems they might experience in their everyday lives[1].

Along with social media being of use in people's everyday lives, it also has a place in businesses. Because social media users rely on other users to tell them their experiences with certain things before purchasing a product, businesses can use social media as a major part of their marketing scheme.

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Businesses might use social media in order to improve their marketing, public relations, customer service, product development and personnel decision-making skills [44]. It also came to the conclusion that social media can be used for socialization, congregation, aggregation and information sharing and exchange[5]. This illustrates how the content on social media can have a major impact on its user's lives. People are looking for answers to their problems or everyday questions on social media, making it a powerful tool for information sharing and for the marketing department of businesses.

Social media is a prominent part of many people's lives both worldwide and in the United States. Social media use has grown in the past decade with only 5% of Americans using social media in 2005 to 72% of Americans using social media in 2021[6]. Furthermore, 84% of young adults ages 18-29 report using social media. Worldwide, 4.55 billion people or 57.6% of the total population are using social media. Several factors influence the number of users for each platform which include age, gender and educational attainment. Specifically, 40% of all American adults use Instagram, 69% use Facebook, 81% use YouTube and 21% use Tik Tok. Instagram, Tik Tok and YouTube are more popular among young adults ages 18-29 than these platforms are for other age groups. For example, 71% of young adults ages 18-29 use Instagram, 70% use Facebook, 48% use Tik Tok and 95% use YouTube.

Not only do most adults use social media, they also spend a considerable amount of time on social media. In 2021, Adults in the US spend an average of 2 hours and 8 minutes a day on social media [11].

Additionally, most social media users visit social media apps several times a day. For example, 59% of all American adults' report visiting Instagram daily and 38% report visiting the app several times a day. However, young adults spend more time on social media than other age

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groups. For instance, 76% of Instagram users ages 18-29 use the app daily while 60% of this age group use the app several times a day. The statistics on social media usage illustrate how the information they are gathering on these platforms can heavily influence their thoughts and behaviors.

2.6 Nutrition Science Between Fallacies and Lies

Television and the Internet have allowed amplification of the promotion of food products. At the same time, they represent the main tools for the dissemination of nutrition and healthy eating contents. However, scientists and nutrition professionals are still struggling to find the right way to communicate efficiently and effectively (throughout these channels) the positive implications for society that their studies could produce. This is because the "translation" of scientific works from the technical language to one suitable for a wider audience is an undertaking that hides several traps, such as oversimplification, sensationalism, and inaccuracy. This is particularly true in the case of nutrition science as it involves aspects of the daily life of everyone[15]. Mass media not only have been used to advertise products, but also to disseminate fake news concerning the nutritional values of foods and their effects on human health (e.g. the case of the “milk consumption-hip fractures” controversial relationship. However, even long before the invention of television and the worldwide web, word of mouth worked well for "food mythology" to reach a large audience.

An example above all: "spinach is the richest source of iron". This is one of the longest-lived scientific legends, as it is now two centuries old. One version of the story tells about an error brought since the dawn of biochemistry, caused by confusing the iron content in the dry weight of spinach with that of fresh weight. Other reconstructions refer to a misplaced decimal point in calculation by two different “guilty”: Emil von Wolff and Gustav von Bunge. None of

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these stories would be true, however it is true that spinach is one of the vegetables that contain only a fair amount of iron (2.9 grams per 100 grams of fresh product) and that we can assimilate only a small quantity of this micronutrient due to its interactions with other dietary factors (i.e. polyphenols, phytates and calcium)[19].

This is one of the many examples of food fallacies that the nutrition sciences have helped to unravel. A particularly arduous task in the globalized world, literally haunted by the proliferation of fake news mainly on the World Wide Web. The internet is widely used to find out information on nutrition and diets, although it cannot be view as the most reliable source. It pointed out that the greater speed with which fake information spread on the web compared to truths. They also discussed the role of social networks noting how, through Twitter, fake news is 70% more likely to be shared compared to reliable news. This study clarifies how the web is a context in which false, or at least inaccurate news, can reach people needing information, leading them to make wrong choices. It is the case of the significant number of people who follow restrictive dietary patterns, such as lactose and gluten-free diets, without having performed the proper medical exams to verify if they have any intolerance.

2.7 Food Fallacies and Religious Beliefs

Food fallacies are often connected to religious views; For instance, Islamic teachings say that people should stay away from pork, alcohol, and blood, while Christian and traditional spiritual beliefs may lead to additional food restrictions, like not eating certain foods during fasting or as part of a religious rite[3]. These religious rules are sometimes closely linked to cultural taboos, which makes it hard to tell the difference between spiritual beliefs and secular food fallacies. While religious food traditions often have deep cultural and spiritual significance,

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they can sometimes become vectors for nutrition misinformation or be misrepresented by both adherents and critics.

Religious dietary laws and practices represent some of humanity's oldest food traditions. From kosher and halal guidelines to Hindu vegetarianism and Buddhist mindful eating, these practices provide identity, community, and spiritual meaning to billions worldwide[10], however, in an era of information abundance and scientific advancement, religious food traditions sometimes conflict with nutritional science or are perceived to do so.

Major Religious Food Traditions

Judaism (Kashrut/Kosher): Jewish dietary laws prohibit certain foods (particularly pork and shellfish), require specific slaughter methods, and forbid mixing meat and dairy products. These laws derive primarily from passages in Leviticus and Deuteronomy (Douglas, 1966; Soler, 1997).

Islam (Halal): In Islam, various dietary laws govern what Muslims may eat, which makes certain foods taboo. Pork is forbidden to Muslims as are foods containing pork products. Other meats, including beef and chicken, are also taboo if they are not slaughtered according to Islamic standards, making them Halal, or permissible for consumption. Foods containing blood, like black pudding, are also not allowed, along with birds of prey and animals that consume meat. The consumption of alcohol is strictly taboo in Islam and is considered a ‘great sin’ in the Quran. This ban is believed to be connected to the requirement for Muslims to pray, while sober, five times a day, and leaving little time to drink and recover from its effects before needing to worship again. It is also believed that alcohol is banned in Islam by a higher power due to its ability to have a negative impact on health. Islamic food restrictions prohibit pork, blood, carrion, and alcohol. Animals must be slaughtered according to specific guidelines with God's name invoked. These requirements stem from the Quran and Hadith. According to the Quran some

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foods like pork or its products are strictly prohibited and declared as haram while others are allowed. Fish and eggs are kept strictly separate from meat during preparation[20].

Hinduism: Traditionally women in India were largely vegetarian while the men consumed what they hunted, but cooked it on open fires outside the homes as doing so inside was taboo. Many accepted dairies but did not consume flesh foods. The Brahmins are also particular about how their food is prepared and stored or by whom it is cooked and served. They avoid foods believed to hinder spiritual development such as garlic, onion and other stimulants.

Many Hindus practice vegetarianism based on principles of non-violence (ahimsa) and beliefs about food purity. Cow slaughter is particularly prohibited in many Hindu traditions. These practices derive from sacred texts like the Vedas and concepts of dharma[5].

Sannyasins avoided preparing their own food relying on harvesting seeds and fruits from forests or on alms to minimize harm to other life and nature. They were basically lacto-vegetarians as they believed that consuming milk was in sync with nature.

Non-vegetarian Hindus ate red meat mainly lamb, goat, buffalo and occasionally pork and wild bear. White meat included poultry, hunted or reared birds and fish in addition to eggs and dairy which they produced through pet birds. For slaughtering, they used the jhatka method meaning "quick death", as this minimized trauma and suffering to the animal.

Buddhism: Buddhist approaches to food vary widely, with some traditions practicing strict vegetarianism based on non-violence, while others allow meat consumption with restrictions. Mindful eating is emphasized across most Buddhist traditions.

Christianity: Since religion is a factor that greatly influences culture, let us consider some religious taboos observed in Nigeria. In Christianity for instance: Seventh Day Adventists have adopted many of the Jewish/Biblical dietary laws, but while to the Jew there is a place for wine,

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coffee, and tea (at least for those old enough to have been given complete religious responsibility), Seventh Day Adventists declare all intoxicating and addictive drinks prohibited. They follow a strict lacto-ovo vegetarian diet with no meat, fish, poultry, alcohol, tobacco or caffeine. Whole grains, fruits and vegetables are considered the base of their diet, and legumes, low-fat dairy products, and eggs are to be used sparingly. Gluttony and drunkenness are, of course, also forbidden. The Church of the Latter-Day Saints more commonly known as the Mormon Church is well known for prohibiting alcohol and tobacco consumption. Mormons also avoid caffeine and hot drinks like coffee and tea. Mormons may, however, eat meat, herbs, fruits and vegetables 'in the season thereof,' and wheat, which they believe has been ordained to man. Moderation is strongly encouraged. While mainstream Christianity has relatively few continuing food prohibitions, some denominations maintain dietary restrictions. Seventh-day Adventists often follow vegetarian diets based on Biblical interpretations and health principles[18].

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Misattributing Health Benefits to Religious Practices

Fallacy: "Kosher/Halal meat is inherently healthier than conventional meat"

While religious slaughter methods emphasize animal welfare and blood drainage, scientific evidence does not support claims that these methods produce meat with superior nutritional profiles or safety compared to standard industry practices[9]. However, kosher/halal certification may indirectly lead to more careful inspection processes[20].

Fallacy: "Religious fasting practices automatically improve health"

Various religious traditions incorporate fasting. While intermittent fasting shows promising health benefits in scientific literature, religious fasting shouldn't be automatically equated with evidence-based fasting protocols. The health impacts depend on specific practices, duration, and individual health conditions[22]

Modern Health Claims Inappropriately Using Religious Justification

Example: "Biblical diet plans"

Some contemporary diet books claim to represent "Biblical eating," despite minimal dietary instruction in Biblical texts beyond specific Jewish laws. These diets often reflect modern nutritional trends rather than historical religious practices[13].

Example: "Ayurvedic detoxification"

While Ayurveda (associated with Hinduism) offers sophisticated approaches to nutrition, commercial "Ayurvedic detox" products often misrepresent traditional practices and make unsubstantiated claims about toxin removal that lack scientific support [14].

2. 8 Food Fallacies and Cultural Beliefs in Nigeria

Nigeria, Africa's most populous nation, encompasses over 250 ethnic groups with distinct food cultures that reflect historical, geographical, and socioeconomic realities [17]. These food

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traditions serve as expressions of cultural identity and social connection while playing crucial roles in health perceptions. In contemporary Nigeria, traditional food beliefs exist alongside changing dietary patterns influenced by urbanization, globalization, and nutrition transition.

Culture consists of values, attitudes, habits, religion and customs, acquired by learning which starts with the earliest experiences of childhood, much of which is not deliberately taught by anyone and which so thoroughly internalized that it is unconscious but 'goes deep. In many cultures, food has a social or ceremonial role. Certain foods are highly prized; others are reserved for special holidays or religious feasts; still others are a mark of social position. Nutritional assessment may be complicated by cultural variation. The relationship between ethnicity and nutrition may be of evolutionary significance. Food beliefs may have beneficial or detrimental effects on health status.

Appreciation of the interaction of culture and nutrition may be of benefit to physicians and nutritionists in clinical practice and to those concerned with the prevention of nutrition related chronic diseases. Cultural influences lead to the difference in the habitual consumption of certain foods and in traditions of preparation, and in certain cases can lead to restrictions such as exclusion of meat and milk from the diet. Cultural influences are however amenable to change: when moving to a new country individuals often adopt particular food habits of the local culture.

How Culture Affects Diet

When an individual grows up in a distinctive culture, it is bound to influence your lifestyle, your belief system and perhaps most enjoyably, your diet. One might have a soft spot for 'amala and ewedu' because one is the Western part of Nigeria, or 'roasted plantain and fish' because one is in the Sothern part of Nigeria, or still, 'fufu and bitter leaf soup because one is in the Eastern part of Nigeria, or 'banga and starch' because one is in the Niger Delta region of

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Nigeria. Some food traditions are healthier than others, so one might want to modify some family favorites to fit them into a healthy lifestyle while retaining the taste of home. For example, substituting fufu with oatmeal and eating it with the same bitter leaf soup so as to reduce the calories taken in by eating fufu.

Through trial and error, and over generations; traditional societies have developed culinary practices which enable them to prepare and eat safe food even in unhygienic environments. Some examples are: thorough boiling of milk, cooking meat in small pieces to facilitate heat penetration, using proper fermentation processes, and eating freshly cooked food[10].

Negative And Positive Impact of Culture on Food Consumption

Different cultures can produce people with varying health risks because of their diet and food consumption. For example, in Nigeria, there is a distinct difference of body size of the northern and southern Nigeria. Many Southerners are at greater risk for ailments such as heart disease and diabetes due to the high carbohydrate and fat diet consumed, unlike the northern people of Nigeria who have majorly cereals and proteins in most of their meals hence the absence of Income levels, limited access to healthier foods and exercise habits might play a role as well.

Mohamad and Ling, stressing lower-fat foods and lots of vegetables, such as those of many Asian cultures, can result in more healthful diets, even reducing the risks for diseases such as diabetes and cancer. In some societies within sub-Saharan Africa, women and young children are prohibited from eating certain foods due to ethnic or cultural beliefs and taboos, and those may include micronutrient rich foods [22, 21]. Food taboos are known from almost all human societies as a systematized set of rules about which foods or combinations of foods that one may not consume.

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Food taboos an aspect of food fallacies often target pregnant women to prevent what is perceived as harmful effects of these foods on the new-born. For example, in Ethiopia, Ghana, Nigeria and in Gabon and the Democratic Republic of Congo, pregnant women are usually forbidden from consuming the richest food-sources of iron, carbohydrates, animal proteins and micronutrients. This is mainly because of the fear that the child may develop bad habits after birth or may be born with diseases, the fear of delayed labor due to large babies and the beliefs that certain foods stimulate continuous menstruation, leading to infertility in women. These strong taboos may limit the quantities and quality of food a pregnant woman may choose to consume. For example, protein-rich foods in the form of meat, fish, eggs and legumes are often denied to pregnant women in various parts of Africa, and in many other populations [20,21].

2.9 Food Values and Beliefs

The food practices of humans are determined by values, attitudes, cultural beliefs, and some environmental circumstances; all of which are the products of traditional culture[6], food values represent the standards or principles that the individuals or group holds about the desirability of food, which is not (in most cases) necessarily related to the nutritional values. Food beliefs represent the ideas about food and nutrition that the individual or group accepts as true. In some parts of Nigeria for instance, people rate salad (coleslaw) as premier food which is served at special occasions and thought to be very 'proteinous' than meat and people will struggle for it.

Also, some rural dwellers now tend to believe that anything packaged or in a can is better than the same product in a fresh form [27]. Food habits and beliefs have a profound influence on the nutritional status of individuals who hold them, because these habits and beliefs affect the selection of their diet. Sometimes, malnutrition occurs where there is enough food but the food

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items which make up a balanced diet are forbidden outright or are not taken by some social group within the community. These food habits and beliefs persist among people because they are deeply rooted in their culture; for example, it will not be easy for a typical Yoruba man, Igbo man or Hausa man to abandon 'amala', 'akpu' and 'tuwo' respectively. Culture or society defines what a meal is both with respect to time of consumption and content. For example, in Britain, tea is not seen as a meal but a drink which can be consumed several times in a day but in Nigeria, tea is a breakfast meal.

Also, fruits, in some culture like Africa (Nigeria), fruit is eaten as a snack food picked from tree in passing or brought home from the market for immediate consumption as though it was chewing gum. Whilst in Europe (Britain), fruits are consumed as dessert (after meal). Each culture has a staple food around which the people's beliefs, rituals, and traditions are built, and as the environmental conditions including economic changes, the beliefs and rituals are modified. For example, most Igbos regard yam as a king crop and many rituals are built around yam. In time past, new yam must be eaten with rituals and other ceremonies.

In modern time, some still cling to some sort of ceremony before consumption of new yam. In general, the staple food varies from one locality to the other. Staple foods used in Nigeria by different ethnic groups in Nigeria include: maize, sorghum, rice, garri, etc. the staple food are carbohydrate dense, and a lack of adequate protein in the diet, depleted by food prejudices that forbid eating mostly proteineous foods that are available, can adversely affect the health status of a population, i.e. cause protein-calorie malnutrition.

Interaction of Culture of Food and Nutritional Status

The avoidance of specific types of food is a widespread phenomenon and applies more commonly to food of animal origin. Religious and other beliefs often call for this avoidance, but

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other cultural factors are involved as well; some foods are regarded as being of low prestige, for example. Most people avoid the meat of animals that have died of natural causes, especially if they were diseased. This natural trait is strengthened by injunctions of the major religions. However, beliefs can differ sharply. In some tribes, eating the brain of dead ancestors was thought to be a way of obtaining their wisdom, but scientists have seen it as a possible mode of transmission of "kuru", an infection endemic in some parts of the highlands of eastern Papua New Guinea where the practice is common. The tribes themselves consider "kuru" to be the result of sorcery[28].

Childhood diseases like kwashiorkor (protein deficiency), usually develops between the ages of two and four years when the child is weaned from the mother's breast milk by the advent of another child. With food taboo such children are also forbidden to eat eggs, fish and meat because of certain cultural beliefs; this may sometimes result in kwashiorkor as observed in some communities[9]. The existence of pockets of bone malfunction, particularly among the young ones cannot be totally divorced from a low intake of a source of calcium, phosphorus and iron. Tabooed food items and the supposed reason(s) for avoiding them, there seems to be no scientific or nutritional facts to support most of the prohibitions if not all the prohibitions. All seems to have been based on cultural beliefs.

When malnutrition is staring us in the face, it is unfortunate that some of these foods that are nutritious and sometimes cheap are being avoided. However, some of these taboos and beliefs are gradually being abandoned by the population in urban areas, but they still persist in rural areas where the bulk of the nation's population lives. It is in these rural areas that infant mortality and malnutrition are on the increase.

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2.9.1 Relationship Between Ethnicity and Food Consumption

It was studied the beliefs and practices of food taboos and fallacies by mothers in South Eastern Nigeria by interviewing respondents to ascertain whether or not they believe traditional taboos that certain food should not be eaten by pregnant women or children under two years of age.

Also, in some recent study, a few of the respondents who practice food taboos, were randomly selected for a more detailed interaction to ascertain the various reasons for avoiding the various food in pregnancy and in their younger children. An article reported some of the excerpts from the interview: A 32-year-old woman (AJ) in the second trimester of her fourth pregnancy had this to say; "I cannot eat snail in pregnancy because it will make my baby to be sluggish in life and spit too much saliva[29]." A 28-year-old woman in the last trimester of her second pregnancy stated that; "I will not eat bush meat like Grass-cutter when I am pregnant because it will cause my labour to be difficult and prolonged during delivery". Another older woman who has had six babies narrated thus; "I avoid starchy food like garri" and noodles in pregnancy because they will make my baby to have excess weight which will be difficult to deliver except by operation" study also gave various reasons for avoiding some food items for their children as young as two years. Below are some of the reasons: a 28-year-old mother has this to say: 'I don't give young children egg because it will cause them to start stealing because it is very sweet". Another mother said "I don't allow my children to drink garri" because it causes eye problem" and "I avoid „sweet" in small children because it causes worm[29]" The above conversation shows that the foods most commonly avoided in pregnancy were snail and grass-cutter meat. Snails are avoided because it is believed that they make babies sluggish and salivate excessively like a snail. Prolonged labor was the major reason given for avoiding grass-cutter meat. There has not been any established link between snail consumption and sluggishness and grass cutter consumption

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with prolonged labour. On the contrary, the giant African snail (Archachatinamarginata) has been shown to be a rich source of protein, trace elements and minerals which are needed for proper growth and development in human beings. In the same vein, the grass cutter or cane rat (Thryonomysspp) is also a known source of rich animal protein. These foods are cheap and can serve as commonly available sources of vital nutrients for a balanced diet in developing countries[29].

Their consumption could therefore reduce maternal malnutrition if utilized fully. Also noteworthy is that the food most commonly denied children is egg which is a source of high biological value protein. The belief is that it leads children to theft. The relationship between eggs and theft has no basis in science. Parity, educational level or occupation has no significant relationship with avoidance of foods due to associated taboos. Thus, maternal experience or socioeconomic status may not necessarily guarantee nutrition knowledge or the application of this knowledge for practical purposes and this demonstrates the effect that traditional beliefs and cultural norm can have on human behavior in general[29]. Taboos appear to have been imposed on society mainly to serve the interests of the 'strongest' section, i.e., the reification of social supremacies of the society: in particular the men folk. In the mid-west state of Nigeria, meat and eggs are not usually given to children, because parents believe it will make the children steal. Gizzards and thighs of ducks are eaten by the elderly; children can only have the lower legs or sometimes the head. Frequently coconut milk and liver are taboo for children, because it is believed that 'the milk renders them unintelligent, whereas the liver causes abscesses in their lungs' [29].

In some parts of Ishan, Afemai, and Isoko Divisions pregnant women avoid snails, whereas pregnant women of the Asaba Division are neither allowed to eat eggs nor drink milk,

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'because it is feared the children may develop bad habits after birth'. Woentribals of the Ika Division are forbidden to consume porcupine as that is thought to cause a delay in labour. Interestingly, the opposite (an easy delivery) is expected from some pregnant Urhobo women, who have consumed food leftovers from a rat. Following delivery, young mothers in parts of Benin and Ishan Divisions must not consume oil or fresh meat and in parts of Ishan, palm-nut soup is forbidden for 30 days postpartum[23]. Men have fewer food taboos to observe, but nevertheless some also exist. Snail consumption may weaken a warrior's strength and to kill and eat some legendary animals that have helped a particular tribe in the past during intertribal warfare is forbidden. Thus, in some areas the partridge or bush fowl is not eaten; in others it is some water reptile or the porcupine or even the sheep that are protected by the food taboo. Beans are one of the plant species that are not eaten, because they are believed to cause stomach disorders.

Functions of Nigerian Food Traditions

Nigerian food practices serve multiple vital functions:

- **Cultural identity**: Food distinguishes ethnic groups and reinforces belonging
- **Social bonding**: Communal eating practices strengthen family and community ties
- **Ceremonial significance**: Specific foods mark lifecycle events and religious observances
- **Traditional medicine**: Many foods serve both nutritional and medicinal purposes in traditional health systems[30]

Food Fallacies in Nigerian Cultural Contexts

Pregnancy and Child Feeding Fallacies

Misconception: "Pregnant women should avoid protein-rich foods like eggs and meat"

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In some Nigerian communities, cultural beliefs restrict pregnant women from consuming eggs based on fears they will cause the baby to develop stealing behaviors or make delivery difficult. Scientific evidence contradicts these restrictions, as protein-rich foods provide essential nutrients for maternal and fetal health. Similar prohibitions affect consumption of snails, certain fish species, and specific meat cuts, potentially contributing to protein malnutrition during pregnancy [28].

Misconception: "Colostrum is harmful to newborns"

Traditional beliefs in some Nigerian communities' label colostrum (first breast milk) as dirty, stale, or harmful, leading to its expression and disposal. This practice deprives newborns of crucial immunity-building components and nutrients. Studies in rural Nigeria show this belief persists despite health education efforts[30].

Food Classification Systems and Health Claims

Example: "Hot" and "cold" food properties in Nigerian ethno-medicine. Traditional Nigerian medical systems classify foods according to humoral properties (hot/cold) that should be balanced to maintain health. While this framework offers sophisticated traditional knowledge, specific health claims based solely on these properties may lack scientific validation. Foods categorized as "cold" are often restricted during pregnancy, postpartum recovery, and certain illness states, sometimes limiting nutrient intake during critical periods.

Example: "Bitter foods purify blood and treat disease". Many Nigerian cultural traditions value bitter-tasting plants and foods for their perceived detoxifying and disease-treating properties. While some bitter compounds show demonstrated pharmacological activities, generalized claims about "blood purification" may lead to overreliance on traditional remedies for conditions requiring medical intervention[31].

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Food Fallacies; An Aspect of Food Taboos and Restrictions

In general, the word "taboo" means a conviction that a set of people shouldn't be among other individuals, places, or activities. Food taboos are a sort of these taboos. They are unwritten social restrictions that are mostly founded on religious or historical grounds that control what people in a community eat. Barfield said that there could be up to 300 causes for a specific avoidance.

For instance, in some regions of Nigeria, pregnant women are not allowed to consume snails because people think that if the mother eats snails during pregnancy, the kid would be very hungry when it is born. Others said that eating reptiles was bad since they thought the baby would crawl instead of walk on time. Most of the taboos don't have any scientific basis, and they often keep the person who follows them from eating a healthy diet. There are many dietary taboos in different parts of Nigeria[32].

The UNICEF Food-Care Health conceptual framework says that cultural norms, taboos, and beliefs are some of the main causes of malnutrition. Food taboos are particularly widespread in poor communities, especially in Sub-Saharan Africa. Pregnant and breastfeeding mothers often follow these rules more strictly to protect their babies from what they think are detrimental effects of these foods[28].

It looks like most of the Nigerian food taboos are meant for kids, mothers, and pregnant women. The meals that are generally tabooed are ones that are high in protein. These people, unfortunately, needed more protein than the adult men who spread the taboos. Women and children frequently eat the leftovers. Most of the time, especially in rural regions, the leftovers go bad since they are stored without refrigeration. The proverb "One man's food is another man's poison" means that what one group of people finds delicious may not be acceptable to another

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group of people, and in some situations, it may even be against the law for that group of people to eat it[28].

Example: Gender-based food restrictions. In various Nigerian cultures, certain nutritious foods are reserved primarily for men or restricted for women. In some communities, foods like chicken gizzard, animal organs, or certain fish species are considered inappropriate for women or children despite their nutritional value. These gender-based food taboos can contribute to micronutrient deficiencies among vulnerable populations. Example: "Children should not eat eggs to prevent stealing behavior" The belief that children who eat eggs will develop stealing tendencies persists in some Nigerian communities. This misconception restricts an affordable, high-quality protein source in a population vulnerable to protein-energy malnutrition.

Food-Health Relationships and Disease Etiology

Misconception: "Food provides spiritual protection" Some Nigerian cultural beliefs emphasize foods' spiritual protective qualities over their nutritional properties. While cultural and spiritual dimensions of food are valid, overemphasis on mystical properties may distract from nutritional considerations. Misconception: "Consuming palm oil prevents or cures poisoning" The widespread belief that red palm oil counteracts poison has led to dangerous practices where palm oil is administered following suspected poisoning instead of seeking immediate medical treatment. While palm oil has nutritional benefits, its emergency use for poisoning lacks scientific support and may delay critical medical intervention[33].

Modern Food Fallacies and Commercial Exploitation

Example: "Foreign/imported foods are superior to local foods" Colonial legacy and contemporary marketing have fostered perceptions that imported foods are inherently superior to local options. This bias affects infant feeding practices, with expensive imported formula

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sometimes preferred over breastfeeding, and promotes consumption of processed imported foods over nutritious local alternatives. Example: "Herbal weight-loss supplements are safe because they are natural" The commercial exploitation of traditional herbal knowledge has led to unregulated weight-loss products marketed with exaggerated claims. These products may contain harmful substances or drug interactions while being promoted as "natural" and therefore presumed safe[33].

2.9.2 Factors Contributing to Food Fallacies in Nigeria

Traditional Knowledge Transmission Systems

Food beliefs transfer through family lineages alongside recipes and food practices. The authority of elders in Nigerian cultures gives significant weight to transmitted food beliefs, including both valuable traditional knowledge and potential misinformation.

Limited Nutrition Education

Despite improvements in formal education access, structured nutrition education remains limited in many Nigerian communities. Scientific nutrition information may be inaccessible due to literacy barriers, language differences, or lack of culturally appropriate materials.

Media Influence and Commercial Interests

Nigerian media and advertising promote commercial food products with minimal regulatory oversight of nutrition claims. Celebrity endorsements and sophisticated marketing campaigns spread misinformation about nutritional benefits of processed products.

Cultural Identity Protection

When traditional food practices face criticism on nutritional grounds, communities may defensively maintain misinformation as a way of protecting cultural identity and resisting perceived cultural imperialism[33].

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Healthcare Systems Challenges

Limited access to healthcare professionals, especially in rural areas, creates information gaps that may be filled by unverified sources. When formal and traditional health systems operate in parallel without integration, conflicting nutritional information may result[33].

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2.9.2 Case Studies

Palm Oil Consumption: Cultural Significance vs. Health Concerns

Red palm oil holds deep cultural significance across Nigerian cuisines as both food and traditional medicine. Research confirms its nutritional value, including carotenoids, tocopherols, and tocotrienols [34].

However, misinformation exists in both directions:

- **Traditional misconception**: Excessive consumption believed to have no negative effects
- **External misconception**: Palm oil portrayed as universally unhealthy despite evidence supporting moderate consumption
- **Commercial exploitation**: Refined palm oil marketed with the health claims associated with traditional red palm oil despite processing methods that reduce beneficial compounds

A balanced perspective acknowledges palm oil's place in Nigerian food traditions while promoting appropriate consumption levels[34].

Infant Feeding Practices: Traditional Wisdom and Scientific Evidence

Nigerian cultures demonstrate sophisticated understanding of infant nutrition through practices encouraging breastfeeding and graduated introduction of complementary foods. However, specific traditional practices can sometimes conflict with optimal nutrition:

- **Early introduction of water**: Cultural belief that infants need water in addition to breast milk, contrary to exclusive breastfeeding recommendations
- **Delayed introduction of animal proteins**: Cultural concerns about "heavy" foods for infants

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- **Pre-mastication of adult foods**: Traditional practice with both benefits (food processing) and risks (disease transmission)

Programs respecting cultural wisdom while addressing specific misconceptions have shown greater success than approaches dismissing traditional practices entirely [11].

Traditional Vegetables: Neglected Nutritional Resources

Indigenous vegetables like ugu (fluted pumpkin), yanrin (wild lettuce), ewedu (jute), and bitter leaf contain exceptional micronutrient profiles. Traditional knowledge correctly identifies their health benefits, though sometimes through different explanatory frameworks than nutritional science.

Contemporary misinformation has contributed to declining consumption as these foods are labeled "poor people's food" despite their superior nutritional value compared to many imported alternatives. Recent scientific validation of traditional vegetables' nutritional benefits demonstrates how indigenous knowledge often precedes scientific confirmation [17].

2.9.3 Impacts of Food Fallacies on Health Outcomes

Maternal and Child Nutrition

Food restrictions based on cultural beliefs contribute to insufficient weight gain during pregnancy and inadequate infant feeding practices. Studies in southeastern Nigeria have associated adherence to certain food taboos with increased rates of maternal anemia and low birth weight outcomes [14].

Non-Communicable Disease Management

Misinformation regarding traditional foods' effects on conditions like diabetes and hypertension affects disease management. Inaccurate beliefs about which traditional foods affect blood sugar

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or blood pressure can undermine dietary management of these increasingly prevalent conditions in Nigeria [10].

Underutilization of Local Nutritional Resources

Misconceptions labeling nutritious indigenous foods as inferior to imported alternatives contribute to nutritional paradoxes where communities experience malnutrition despite local availability of nutrient-rich traditional foods[35].

Delayed Medical Treatment

Food-based traditional treatments supported by misinformation sometimes delay crucial medical intervention, particularly for acute conditions and infectious diseases[35].

Bridging Traditional Knowledge and Nutritional Science

Community-Based Participatory Approaches

Successful nutrition education programs in Nigeria have employed community participation methodologies that respect cultural authorities while introducing evidence-based information. Involving traditional leaders, religious authorities, and community elders in program development increases acceptance of nutritional guidance[36].

Identifying Beneficial Traditional Practices

Acknowledging and reinforcing nutritionally sound traditional practices builds trust while providing a foundation for addressing misinformation. Many Nigerian food traditions promote dietary diversity, food preservation techniques, and beneficial food combinations that align with nutritional science[36].

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Culturally Contextual Nutrition Education

Framing nutrition information within familiar cultural contexts and value systems increases acceptance. Programs that contextualize recommendations within cultural frameworks show greater efficacy than those imposing external nutritional paradigms[36].

Healthcare Provider Cultural Competence

Training healthcare providers in cultural food beliefs and practices improves their ability to address nutrition misinformation effectively. Understanding the cultural significance behind food practices allows for more respectful and effective nutrition counseling[18].

2.9.4 Towards Truly Informed Choices

The spread of baseless nutritional information is due to the lack of scientific knowledge that is needed to distinguish which is a reliable information and which should be taken as a joke. As a matter of fact, people process information extrapolated from texts and videos differently, depending on their level of knowledge of the topics. Based on this elaboration, they may be vulnerable and become easily persuaded to make wrong and even harmful choices. The lower the knowledge, the greater the vulnerability and therefore the tendency to rely on the online pull of mixed contents, regardless of its quality[36]. In an increasingly interconnected world, the popularity of social media contributed to make celebrities and influencers as role models. Followers may wonder how this well-known personality “has that physical aspect”, desiring to resemble him/her, and thus wanting to know "what diet is he/she following", "what sporting activity is he/she practicing", or "which supplements are involved". In this way, popular personalities are seen as more reliable as experts, even if they do not have a specific scientific background. All these misconceptions bring people to follow them instead of searching for

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information from reliable sites, open access scientific papers or, even better, asking directly a nutritional or medical professional. How can we incentivize informed choices?

First, we believe that nutrition professionals should play a primary and decisive role in providing reliable information to patients and their relatives. Particularly, we stress the importance of an accessible language to avoid technicalities that are perceived as hurdle by the patients. As pointed out[36], communication barriers lead to a less involvement of patients and their reduced willingness to follow directions and suggestions coming from healthcare professionals. Furthermore, we claim that making a greater effort in the spread of scientific knowledge to the public, organizing public events and publishing easily readable articles on websites, blogs and magazines, could contribute to raise the awareness of the huge influence that eating habits have on human health[36].

2.9.5 Causes of Food Fallacies

Food misconception can be caused by various factors such as traditional believe, customary, religion, cultural, poverty fad and fallacies, lack of adequate knowledge about nutrition, food allergies or intolerance, lack of adequate awareness about certain foods nutritive values among others. Socio-cultural issues such as tradition, custom religion. These can cause misconceptions about food among male and female gender. This might make some people not to consume certain foods that are forbidden in that area. These foods forbidden might be the only source of vital nutrient that may be lacking in that area, thereby causing nutritional disorder and affect their dietary practices. Inadequate nutritional knowledge and education: When people are ignorant, there is tendency that they misconceive or their perception toward the consumption of certain foods in that area, whereby they are lacking or suffering the disorder of that nutrient. It might be that they need to supplement their diet with other nutrient sources. An example is the

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case in the Northern Nigeria where most of their cultivations are grains, this leads to most of them having goiter (iodine deficient), blindness, (vitamin A deficient) and so on. Another misconception in that area is that the male should eat the better part of the farm proceeds, while the female and children feed on what is remaining[31]. Lack of functional nutrition and dietetic units, where people can make enquiring or report issues related to food and nutrition problems and issues about food misconceptions.

Nutrition education is a key component in ensuring good dietary practices. One of the principals aims of nutrition education is to provide people in rural and urban areas with adequate information, skills and motivation to procure and to consume appropriate diets. Household food security is a prerequisite for people to have an adequate and balanced food intake. However, to attain good health and nutritional status, people also need sufficient knowledge and skills to grow, purchase, process, prepare, eat and feed to their families a variety of foods, in the right quantities and combinations[18]. This requires a basic knowledge of what constitutes a nutritious diet and how people can best meet their nutritional needs from available resources. Undesirable food habits and nutrition-related practices, which are often based on insufficient knowledge, traditions and taboos or poor understanding of the relationship between diet and health, can adversely affect nutritional status and dietary practices. However, people can adopt healthier diets and improve their nutritional well-being by changing their food and nutrition perceptions, attitudes, knowledge and practices, if sufficient motivation is provided to do so.

Also, people generally should be enlightened about the reinforcing specific nutrition-related practices or behaviors to change habits that contribute to poor health (such as food misconception); this is done by creating a motivation for change among people, to establish desirable food and nutrition behavior for promotion and protection of good health. It was

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suggested that help needs to be given to people to learn new information about nutrition and to develop the attitudes, skills and confidence that they need to improve their nutrition practices and dislodge issues that are attached to food misconceptions[16].

2.9.6 Market Women and Their Role in Food Systems

Market women in Nigeria occupy a unique position in the food system, functioning as both consumers and distributors of food products. These women represent a significant portion of the informal sector workforce in Nigeria, with food trading being a predominant activity. Their role extends beyond mere commerce to include informal food education and the perpetuation of food-related cultural practices[37,38].

Gender plays a crucial role in food systems and dietary decision-making across African contexts. Women traditionally hold primary responsibility for food procurement, preparation, and family nutrition, making their food beliefs and knowledge particularly influential for household and community nutrition outcomes. Research has consistently shown that women's nutrition knowledge and dietary practices have significant impacts on child nutrition and family health[38].

Market women occupy unique positions within gendered food systems, combining traditional roles as food providers with entrepreneurial activities as food traders. This dual role may create both opportunities and challenges in terms of dietary choices and nutrition outcomes. Their position as food distributors gives them influence over community food access and choices, while their own dietary practices may be constrained by work demands and economic considerations.

Studies of women's food beliefs in Nigerian contexts have revealed the persistence of traditional practices alongside adoption of modern dietary recommendations. The integration of

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these different knowledge systems varies among individuals and communities, creating diverse patterns of food beliefs and practices[10].

It was highlighted that market women often serve as community nutrition gatekeepers, influencing food choices through their recommendations, food preparation advice, and modeling of dietary behaviors. This influential position makes them both potential vectors for the spread of food fallacies and potential agents for positive nutritional change[12].

It was found that market women in southwestern Nigeria significantly influence food purchasing patterns in urban settings, often advising customers on food selection based on a combination of traditional beliefs and practical experience rather than scientific nutritional knowledge[2]. This influence creates both challenges and opportunities for addressing food fallacies at the community level.

Studies on Food Fallacies in Nigeria

Several studies have investigated food fallacies in different regions of Nigeria, providing insights into their prevalence and impact. A study was conducted in northwestern Nigeria that identified 37 common food taboos affecting pregnant women, including prohibitions against eggs, certain meats, and specific fruits. These taboos were found to significantly impact dietary diversity and nutrient intake during pregnancy[39].

In southwestern Nigeria, it was documented that food prohibitions among pregnant women, finding that 68% of respondents adhered to at least one food prohibition, with the most common being avoidance of snails, okra, and certain types of bush meat. The study found significant associations between adherence to these prohibitions and lower intake of essential nutrients including iron, calcium, and vitamin B12[39].

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In south-south Nigeria it was revealed that food taboos and fallacies were more prevalent among women with lower educational attainment but were observed across all socioeconomic groups. This study highlighted the cultural entrenchment of food fallacies and their resistance to change even in the face of increasing education and modernization[40].

A comprehensive analysis of cultural dietary patterns was conducted in Ondo State, finding that food fallacies contributed significantly to micronutrient deficiencies among women of reproductive age. The study documented beliefs associating certain foods with specific health conditions, often without scientific basis, and found that these beliefs limited dietary diversity and nutritional adequacy[39].

Socio-Cultural Factors Reinforcing Food Fallacies

Several studies have explored the socio-cultural factors that reinforce food fallacies in Nigerian communities. Gender roles, family relationships, and household food security in Nigeria was examined, finding that female elders (particularly mothers-in-law) played a significant role in perpetuating food taboos and fallacies. The study highlighted the importance of considering family power dynamics when addressing nutritional misconceptions[40].

It was investigated that the role of religious beliefs in reinforcing food fallacies, finding that religious teachings were often invoked to justify food restrictions and practices that had nutritional implications. The study noted that religious leaders could be important allies in efforts to address harmful food fallacies while respecting cultural and spiritual values[18].

Several mechanisms were identified, through which food fallacies were transmitted and reinforced, including folklore, proverbs, community sanctions, and fears of supernatural consequences for violating food taboos. The study emphasized the need to address these cultural transmission mechanisms when developing interventions to combat food fallacies[19].

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The role of traditional food processing techniques in reinforcing food-related beliefs were examined, which brought about findings that the perceived efficacy of these techniques in preserving food and preventing illness contributed to the persistence of associated food fallacies. This research highlights the complex interplay between practical experience and cultural beliefs in shaping food practices[4].

Economic Implications of Food Fallacies

Research on the economic implications of food fallacies has revealed significant impacts on household food expenditure and food security. A study was conducted in rural Nigeria that found households adhering to multiple food fallacies spent on average 12% more on food while achieving lower dietary diversity scores than those with fewer food misconceptions. The study attributed this inefficiency to the avoidance of nutritious, cost-effective foods due to unfounded beliefs[40].

It was investigated economic status and food consumption patterns among market women in Ibadan, finding that food fallacies led to suboptimal allocation of limited food budgets. The study documented cases where expensive foods were purchased based on exaggerated beliefs about their nutritional value, while more affordable alternatives were avoided due to unfounded concerns[41].

The impact of food fallacies on household food security, finding that adherence to food taboos and misconceptions was associated with increased vulnerability to seasonal food insecurity. The study highlighted how food restrictions limited the ability of households to adapt to changing food availability and prices[41].

Food fallacies contribute to economic inefficiencies in food systems by influencing consumer demand in ways that may not align with nutritional value or sustainable production

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practices. This macro-level impact suggests that addressing food fallacies could have broader economic benefits beyond individual households[41].

2.2 Theoretical Framework

2.2.1 Social Cognitive Theory

Social Cognitive Theory (SCT), developed by Bandura (1986), provides a useful framework for understanding how food fallacies influence dietary behaviors. SCT posits that human behavior is determined by a dynamic interaction between personal factors, environmental influences, and behavior itself, a concept known as reciprocal determinism[10].

In the context of food fallacies, SCT helps explain how market women's beliefs about food (personal factors) interact with their social environment (cultural norms, peer influence) and their actual food choices (behavior) to create and maintain dietary patterns. Key constructs of SCT relevant to food behaviors include self-efficacy (confidence in one's ability to make dietary changes), outcome expectations (anticipated consequences of dietary choices), and observational learning (learning through watching others).

It was applied SCT to nutrition education interventions in Nigeria, demonstrating that addressing self-efficacy and outcome expectations related to traditional food beliefs resulted in improved dietary practices among women. This suggests that SCT-based approaches could be effective in addressing food fallacies among market women[13]. The Social Cognitive Theory, developed by Albert Bandura (1986), emphasizes the role of observational learning, social influence, and cognitive processes in behavior formation. This theory suggests that individuals learn behaviors by observing others, especially within their social context, and that these behaviors are reinforced through rewards or punishments. In the topic of food fallacies, SCT is very important since social interactions and shared cultural beliefs often affect what people eat.

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For example, women who work in the Oje market may get their eating views and habits from what they see their family, friends, or community leaders do. These false ideas about food are then reinforced by the way society works, which affects what people eat.

Bandura's model 7 says that people's ideas about food and health are shaped not only by their own experiences but also by the media and the people around them. In this situation, people may learn and spread food fallacies through community debates, fallacies, and how food is shown in popular media or local beliefs. Understanding these processes can help us figure out how food fallacies might be taken in and then affect the eating habits of market women.

2.2.2 Health Belief Model

The Health Belief Model (HBM) is a well-known public health framework that tries to explain and forecast how people behave when it comes to their health, such as whether they choose to follow or avoid specific dietary patterns. The model says that people's actions are affected by how they see health risks and the benefits of taking preventative measures, as well as how they see the obstacles to those activities.

When it comes to food fallacies, the HBM can help us figure out how market women's views about food and health affect what they eat. For example, women in the Oje market might stay away from certain foods because they think they are bad for their health or the health of their families (for example, certain vegetables making them infertile or too much fat leading to chronic diseases), even though there is no scientific evidence to back up these beliefs. The model also shows how the perceived benefits of avoiding these items and the perceived severity of the health concerns might affect the choice to stick to food fallacies. The HBM also shows how cultural ideas and fallacies affect what people eat and how they act when it comes to nutrition. The model has important parts like perceived vulnerability, perceived severity,

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perceived advantages, and perceived barriers. All of these have a big effect on whether people believe or reject food-related fallacies[43]. Interventions that attempt to improve women's food knowledge and challenge these false beliefs could lead to better eating habits by making women feel more confident about making smart choices[43].

Women are more inclined to stay away from "forbidden foods" if they think they will have bad effects on their health, even if they don't get enough nutrients. Because they think they are more likely to get sick, they choose not to eat things that are good for their health, including eggs, fish, and meat, which are important for the health of both the mother and the baby. This leads to undernutrition and nutritional deficiencies, especially during pregnancy, which can cause problems with the mother's health and bad delivery outcomes[43].

Perceived severity is how significant or big someone thinks the health concern is that comes with a certain habit or disease. People are more inclined to take steps to avert a perceived threat if they think the repercussions of an action are worse. When it comes to dietary fallacies, women who think that eating certain foods could lead to serious difficulties, such miscarriage, early birth, or health issues for their kid, are more inclined to follow stringent eating rules. This idea is especially strong in societies were having a baby and being pregnant are seen as sacred and where the possibility of injury is thought to have big effects[43].

People who think the repercussions will be worse generally stick to eating restrictions even more. For instance, if a pregnant woman thinks that eating snails will cause her to have a miscarriage that is deadly, the fear of this consequence is greater than any possible health benefits she might get from eating snails. So, the woman will do everything she can to stay away from snails, even though this could lead to a lack of nutrients or an imbalance. This dynamic

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shows how fear and cultural fallacies can have a big effect on what people eat, causing them to make health choices based on wrong or exaggerated ideas about how bad things are[43].

The Health Belief Model (HBM), originally developed by Rosenstock (1974) and later expanded by Janz and Becker (1984), offers another relevant theoretical perspective for understanding food fallacies. HBM suggests that health-related behaviors are influenced by perceived susceptibility to health problems, perceived severity of those problems, perceived benefits of taking action, perceived barriers to action, cues to action, and self-efficacy.

In relation to food fallacies, HBM helps explain why individuals might adhere to nutritionally unsound practices despite contrary evidence. For example, It was found that market women in Ibadan continued to avoid certain nutritious foods due to perceived susceptibility to illness, even when these perceptions lacked scientific basis. The perceived benefits of adhering to traditional food rules (cultural acceptance, perceived health protection) often outweighed the perceived benefits of adopting science-based nutritional practices[43].

It was demonstrated that nutrition interventions addressing perceived barriers to healthy eating and enhancing perceived benefits of nutritious foods were more effective in changing dietary behaviors than those focusing solely on nutritional knowledge. This finding highlights the importance of addressing the underlying beliefs that support food fallacies rather than simply providing factual information[44].

Benefits that people think they will get

Perceived benefits are the good things that a person thinks will happen if they perform a certain thing or act in a certain way. Women who believe that avoiding specific meals will make them healthier are doing so because they think that these actions will help them. For instance, many women stick to their diets because they think that eliminating eggs or fish will make their

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pregnancy safer, their kid healthier, or their birthing easier. People often think that following food fallacies is better for them than the scientific evidence that shows certain foods are good for you.

In certain situations, women think that avoiding particular meals is good for them and their child since they think it would keep them both healthy. Because of this, these ideas stay strong even if nutrition professionals stress how important foods like eggs are for protein, omega-3 fatty acids, and other important micronutrients. People who believe in food fallacies frequently do so because they think it will protect them spiritually or physically, or because they think it will help them fit in with their culture and get social approbation[44].

Barriers that people think are there

Perceived barriers are the things that a person thinks will make it harder for them to adopt a healthy behavior, even when they know how good it is for them. These problems can be real, cultural, or mental. When it comes to food fallacies, cultural and societal standards can make it very hard to change the way you eat. Family members, community leaders, and religious officials who support the idea of food fallacies may make it hard for many women to change their eating habits for the better. The desire to eat healthy may not be strong enough to overcome the social pressure to follow traditional food rules[44].

Also, not being able to get appropriate nutrition instruction or credible health information can make it harder for people to change their eating attitudes. In many rural or traditional communities, the school system may not do a good job of teaching about nutrition and health practices, which means that people may not have enough information to fight food fallacies. Also, not having enough money can make it hard to get meals that could help you get around the limitations caused by dietary fallacies. For example, people may think that snails or eggs are too

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expensive, which makes it hard for them to get these critical nutrients, even if they know how good they are for their health[44].

The HBM says that getting rid of these barriers is the most important step in eliminating bad eating habits. Public health campaigns or interventions must show clear benefits to changing dietary patterns based on facts and seek to make the barriers, both cultural and practical, seem less important. This might include teaching people in the community, using local leaders to convey messages based on evidence, and making it easier for people to get healthy foods at a low cost.

2.2.3 Cultural Ecology Theory

Cultural Ecology Theory, developed by anthropologist Julian Steward (1955) and expanded by subsequent scholars, examines the relationship between cultural practices and environmental adaptation. This theory provides valuable insights into the origins and persistence of food fallacies in specific cultural contexts.

Many food taboos and fallacies originated as adaptations to specific environmental conditions but have persisted even as these conditions changed. For example, some food restrictions that originally served to protect against food borne illness in environments without refrigeration continue to be observed despite the availability of modern food preservation techniques[17]

In the Nigerian context, it was applied cultural ecology principles to examine how traditional food processing methods and beliefs evolved in response to local environmental conditions and food availability. Their research suggests that understanding the ecological origins of food fallacies can inform more effective approaches to addressing them[10]

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This theoretical perspective emphasizes the need to consider the broader cultural and ecological context when addressing food fallacies, rather than treating them as isolated beliefs that can be corrected through education alone[16].

2.2.4 The Diffusion of Innovations Theory

Everett Rogers came up with the Diffusion of Innovations hypothesis in 1962. It helps us understand how new ideas and ways of doing things spread in a social system. The notion says that people adopt new ideas and habits through a process of talking and interacting with each other. This idea helps to explain how some food fallacies are passed down and kept alive in societies, even when new information or knowledge comes to light. For instance, traditional food fallacies can make it harder for people to learn about the health benefits of eating fruits and vegetables or avoiding specific meals because they are worried about their health.

The Diffusion of Innovations theory says that market women in Oje market may be more likely to adopt healthier eating habits if there are change agents (like health professionals or community leaders) who can challenge existing food fallacies and show them new, evidence-based ways to eat. The study can figure out how to get people in this community to eat healthier by looking at how their food attitudes spread and evolve[8].

2.2.5 The Theory of Planned Behavior (TPB)

Icek Ajzen came up with the Theory of Planned conduct (TPB) in 1991. It is one of the most important ideas in social psychology. It explains how people decide to do certain things and how those decisions turn into actual conduct. According to TPB, three main things affect how people act: their attitudes toward the action, their subjective norms, and their sense of control over their behavior. When it comes to food fallacies, TPB gives us a strong way to understand

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how cultural beliefs and societal influences affect what people eat and how they eat it. By looking at these main parts, TPB shows how misunderstandings about food or traditional ideas about nutrition can affect how people eat, especially in communities or individuals who are quite set in their cultural ways[9].

How you feel about the behavior

The attitude toward the activity is how someone feels about doing a certain thing, whether it's good or bad. This evaluation is based on what people think will happen as a result of the conduct and how they see the possible outcomes. When it comes to food fallacies, a person's mindset is shaped by the beliefs that are built into their society about what is "safe" or "unsafe" to eat.

For example, a pregnant woman who thinks that eating snails, eggs, or fish could cause miscarriage, birth deformities, or other health problems will not want to eat these things. Even though these meals are usually thought to be healthy and good for you in many diets, this negative mindset makes people not want to eat them. TPB says that the woman's unpleasant feelings about some foods are a big reason why she wants to stay away from them. The more she thinks that eating certain foods would hurt her, the more she wants to follow the food fallacy, even if it means giving up good nutrients.

Also, food fallacies can go beyond fallacies surrounding pregnancy and include more basic ideas about food. In some cultures, people may avoid specific meals, like snails or beef, because of superstitions or religious beliefs. This might lead to a bad attitude about these foods. These attitudes are quite important when it comes to choosing food choices, and they are typically passed down from one generation to the next, affecting how people act even when they have health knowledge that goes against them.

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Subjective Rules

Subjective norms are the societal pressure that people feel to do or not do a certain thing. People's social groupings, including family, friends, classmates, or other important people in the society, influence these norms by what they believe and expect. In the case of food fallacies, cultural beliefs and community practices often make people act in ways that are in line with the norms and values of the people around them.

For instance, in many African cultures, elders and religious leaders pass down views about food. These leaders typically say what is okay or not okay to eat at certain times in life, such when a woman is pregnant. People are prone to follow the opinions of the majority of their community if they think that eating eggs or snails is bad for the pregnancy or the child. This is because they want to fit in or get approval from others. Even when there is scientific evidence to the contrary, this homogeneity can cause food fallacies to propagate widely in a community.

The TPB says that subjective norms can have a big effect on what people want to do and how they act, especially when the person thinks that the beliefs of the social group are important. People are more likely to avoid a certain meal (such meat or eggs) if they think their friends will disapprove of them eating it, even if they are concerned about their own health. So, social approval is a big part of keeping food fallacies alive and changing how a group eats.

Control of behavior that is perceived

Perceived behavioral control is how someone thinks they can do something based on their past experiences, resources, or outside factors that make it hard for them to do it. In TPB, how much power someone thinks they have is a big factor in their intents and actions. When it

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comes to food fallacies, perceived control is about how much someone feels they can make their own food choices or if they are limited by things like money, access to food, or cultural expectations[19].

A market woman, for example, might feel like she can't fight the food fallacies she sees because she thinks she doesn't have control over what she eats because of money problems, not being able to get a wide range of foods, or societal pressure to stick to conventional food practices. Even though the woman knows that snails, eggs, and fish are good for her health and can help her have a balanced diet, she may feel that she can't eat them every day because of societal norms that say she shouldn't.

People may also think they don't have enough money to buy the items that could go against common food fallacies. For instance, in some places, healthy meals that aren't meat or fish may be seen as expensive, while the things that food fallacies say are bad for you may be cheaper or easier to find. So, the person's feeling of not being able to control their resources can make it harder for them to choose healthier, evidence-based eating options.

2.3 Reviews of Empirical Studies

Empirical research gives us important information about how food fallacies affect what people eat and how they eat, especially in places like Nigeria where there are many different cultures. Many research has looked into how traditional food beliefs and nutritional behavior affect each other. They have found that there are a lot of enduring food fallacies that affect the dietary choices of both individuals and communities. These results are really important for figuring out how wrong ideas about food lead to malnutrition, gender differences in nutrition, and bad health consequences, especially in groups that are already at risk.

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A study looked at how Nigerian women's cultural beliefs affect what they eat. The results showed that common fallacies, such the idea that young women who eat eggs would become infertile or sexually promiscuous, led to a lot of people avoiding eggs, which meant they didn't get enough protein. This study showed how deeply ingrained gendered food fallacies are and how they restrict people from getting the nutrients they need[45].

A study in southwestern Nigeria looked at traditional dietary taboos and how they affect the nutrition of children. The study revealed that preconceptions about food, especially those about fruits and vegetables, often inhibited moms from giving their kids balanced diets when they were growing up. People didn't eat these foods because they were afraid of getting sick or having a birth defect, which led to more incidences of stunting and malnutrition[46].

Another study looked at how gender roles and food fallacies affect how food is shared in low-income Nigerian homes. The study found that women often put their own nutritional needs behind those of male family members. The study highlighted the need for targeted interventions addressing specific beliefs that negatively impact nutritional outcomes. This was partly because they thought that some foods should only be for men or older people. This behavior, which was based on cultural and patriarchal norms, was made worse by the idea that some vegetables or proteins could be bad for women's reproductive health[7].

Research looked examined how globalization and the rise of processed foods have changed the diets of people living in cities and in rural areas of Nigeria. Urban areas were more likely to follow Western eating habits, but rural areas stuck with traditional food systems. But a lot of people who lived in rural areas stayed away from healthy fats because they believed beliefs about how bad vegetable oil is for your health. The researchers say this led to widespread micronutrient shortages[47].

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Another study looked at how low food literacy in Nigeria is linked to the spread of food fallacies. The study indicated that people in rural areas who didn't know much about nutritional science were more likely to rely on misconceptions passed down through generations than on dietary habits that were based on data. The study found that informal information networks were primary sources of food-related knowledge, often perpetuating misconceptions despite contradicting evidence from formal sources. The research emphasized the importance of understanding informal information systems in developing effective nutrition communication strategies. The study found that culturally responsive educational initiatives that teach people about food could help get rid of these beliefs and improve people's nutritional health[19].

A study looked at how food taboos changed the eating habits of pregnant women in southern Nigeria. The study found that a lot of pregnant women stayed away from foods that are high in nutrients, such snails, pineapples, and other vegetables, because they thought they might cause infertility, miscarriage, or other problems. These taboos made it much harder for mothers to get the nutrients they needed, which led to anemia, low birth weight, and other health problems.

Research in Ogun Stat, looked at how food beliefs during pregnancy can affect nutrition. It showed that many women limited their diets for no good reason because they were afraid that eating leafy greens and fruits while pregnant would cause a miscarriage[48]. The study found that adding cultural sensitivity to maternal health programs could help bring together traditional beliefs and scientific advice.

Another study looked at food taboos that affect the diets of kids in southwestern Nigeria. The study showed that people still believe that animal products like milk and meat might make you sick or make you spiritually impure. These ideas often made kids not eat enough important

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nutrients when they were young, which made problems with undernutrition and developmental delays worse[49].

A study looked into the link between food fallacies and the growing number of obese people in urban Lagos. Researchers found that false beliefs, including thinking that eating too many carbs or high-fat foods in moderation is safe, led to bad eating behaviors. These results showed how important it is to teach people about nutrition in a way that directly addresses false assumptions about food[50].

A study looked at food misconceptions among women who sold goods in southern Nigeria[21]. Researchers found that these ladies often stayed away from fruits and vegetables because they thought they would make them infertile or spiritually dirty. These superstitious actions often lead to a lack of variety in the diet. The study suggested that education programs at the community level should be used to break down these kinds of false beliefs[21].

A study on food taboos during pregnancy in northern Nigeria found that many women stayed away from healthy items including tomatoes, eggs, and beef. Women thought that certain foods could induce birth abnormalities or miscarriage. This diet restriction was directly connected to increased prevalence of anemia in mothers and low birth weight. The researchers underlined how important it is to have community-based education that includes religious and cultural leaders to help people understand these beliefs[50].

A study looked into food taboos that were common during the weaning of babies in eastern Nigeria. The study found that moms often kept fruits and vegetables out of their children's diets because they believed they could induce diarrhea or intestinal worms. The researchers suggested maternal outreach programs that focus on education to support weaning techniques based on evidence[24].

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Another study looked at how false information about food affects the eating habits of teenage girls in Lagos State. The study found that teenage females in cities generally stayed away from specific meals, such fatty fish, because they thought they would make their skin look worse or make their acne worse. The study showed that dietary education for teens needs to include information about body image and misinformation[25].

A study also looked at what Nigerian market women thought about eating fruits and vegetables. Beliefs that pineapples cause miscarriage or spinach causes bloating, for example, made people eat a lot less fruits and vegetables. The researchers stressed the necessity for health communication tactics that are specific to each group and that challenge false ideas while still respecting cultural norms. For example, some women avoid fish, eggs, and snails because they are afraid of bad consequences during pregnancy. Even though women know that certain meals are good for their health, they nonetheless observe these food taboos because of cultural beliefs that have been passed down from generation to generation. These results show how deeply established food fallacies are in the eating habits of market women in Ibadan[51].

The study indicated that a lot of women still believe in food fallacies even after learning basic nutrition facts. The study found that food fallacies are still around because of strong societal and cultural influences that make it hard for women to change what they eat. These false ideas are often supported by social standards, such recommendations from elders or religious leaders. This makes it hard to encourage people to eat better[3].

People in the community typically hold these views quite strongly, which makes them avoid healthful foods like fish and meat. To get people to stop believing in these food fallacies and make better choices, the study says that we need to use a variety of methods, including education and getting people involved in their communities. The study indicated that teaching

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both men and women on the benefits of good nutrition could help lessen the effects of food fallacies on their eating habits[19].

The study indicated that elders, religious leaders, and other important people in the community often spread food fallacies that change the dietary choices of market women. Oni wants these leaders to be a part of nutrition education programs to clear up misunderstandings and encourage people to eat better. The study found that pregnant women who believed in food fallacies, such not eating snails and eggs, had big gaps in their diets that made them lack important vitamins and minerals[52]. The author suggested changing the way health information is communicated, with an emphasis on eliminating food misconceptions through culturally appropriate nutrition education.

The study found that traditional food beliefs make it hard for people to have a balanced diet. These false beliefs had a big impact on pregnant women and new moms; many of whom stayed away from foods they thought were bad for them[53]. The study discovered that false beliefs about food made people eat poorly, which made them depend on inexpensive, low-nutrient meals. Fola said that to improve the nutrition of women and children in the area, public health measures need to deal with both the cultural and economic causes that keep these fallacies alive[53].

The study found that cultural beliefs had a big impact on dietary choices. Many women stayed away from specific meals because they were afraid of how they might affect their health, even though they knew how good they were for them. It was said that to get rid of these wrong ideas, public health programs need to include cultural settings in their teaching methods and focus on the health advantages of foods that people used to avoid[54].

The authors said that health campaigns should focus on giving people nutritional information that is based on facts and take into account the cultural sensitivities of the area. The

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study found that pregnant women often stayed away from particular foods that were high in nutrients because they were afraid of hurting their newborns. This caused them to have serious nutritional deficits. The study showed how important it is for healthcare professionals to correct these false beliefs and give culturally appropriate dietary guidance to promote the health of mothers and children[55].

The study found that women who learned about nutrition were more likely to make smart food choices, even when they held cultural ideas about what to eat[56]. The study showed how important it is to have focused education programs to fight food fallacies and enhance the nutritional health of women in Ibadan. It looked at how traditional food beliefs affect the eating behaviors of women in Ibadan, with a focus on how food misconceptions affect what people choose to consume. The study discovered that a lot of women believed false information about how specific meals could be bad for them, especially while they were pregnant. It stressed the importance of nutrition education programs that are adapted to different cultures and include both local beliefs and health facts to help people eat better[56].

The study found that cultural ideas about food, especially the idea that people should avoid certain foods like fish and snails, were common and caused diets that weren't balanced. Adebayo said that public health efforts should focus on community-based programs that counter these false ideas and give people facts about the nutritional benefits of foods that people often avoid. It was studied how women's views about food affect their health and nutrition in Ibadan. Their research indicated that food fallacies had a big impact on women's eating habits, especially during pregnancy, when they stayed away from foods they thought were bad for them. The writers said that health professionals should work with community leaders to fix these mistakes and encourage people to eat better[19]. The study discovered that even though people have more

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access to knowledge, cultural ideas about how bad some foods are for you, like beans and tomatoes, still affected what they ate.

A 2025 study evaluated the determinants of diet choice by populations in West Africa, including Nigeria, using data from 473 people relating to their socioeconomic and cultural characteristics[57].

A comprehensive study was conducted by examining food consumption patterns, nutrient adequacy, and food systems in Nigeria using the 2015/16 Nigeria General Household Survey Food consumption patterns, nutrient adequacy, and the food systems in Nigeria. The study found significant gaps in nutrient consumption, particularly among women[58].

It was suggested that dietary interventions should use both current scientific knowledge and traditional traditions to successfully fight these false beliefs[59], looked into how food taboos and fallacies affect the diets of women in Ibadan, with a focus on pregnant women. The study found that traditional attitudes about food, like the thought that some foods could cause miscarriage, linked to limited diets and bad health results. It was said that healthcare workers should work closely with people in their areas to get rid of these beliefs and encourage them to eat balanced, healthy meals.

2.4 Conceptual framework

What TPB means for dealing with food fallacies

The Theory of Planned Behavior says that changing people's attitudes, modifying societal standards, and making people feel like they have more control over their behavior are all important for changing eating habits that are based on food fallacies[60]. When using TPB to plan public health interventions, they should think about the following:

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1. Change of Attitude: Interventions should try to clear up misunderstandings about the hazards of certain foods by giving people accurate information on the health benefits of certain foods, especially those who believe in food fallacies. For example, teaching pregnant women about how important snails, fish, and eggs are for their health could help change how people feel about these items.
2. Normative Influence: To change societal norms, public health initiatives should work with important community members (including elders, religious leaders, and peer groups) who have a lot of power over what people believe about food. To fight harmful food misconceptions, social campaigns can set a new standard that promotes inclusive eating habits based on scientific data.
3. Improving Control: To get around perceived hurdles, it's important to make nutritional education and resources more available, especially for people who may not be able to afford it or have trouble getting to it. People can make smart food choices even when they don't have a lot of money if they get help with nutritious foods, have greater access to markets, and take part in community-based nutrition programs.
4. Food systems theory looks at how food is grown, processed, distributed, eaten, and thrown away in a certain social, economic, and environmental setting. Food systems are affected by many things, such as culture, economy, politics, and people's actions. This study looks into food fallacies in the larger food system of the Oje market, where market women buy food and also sell it informally. Their eating choices are affected by cultural beliefs and food fallacies, which are part of a wider food system that includes things like local food production, food availability, and money.

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Traditional food systems typically include food fallacies that might change how people think about and eat certain foods. For instance, people in the food system may not eat particular foods or may not realize how healthy they are because they think they are too expensive or unsafe[61]. The study can better look at how food fallacies affect the decisions that market women make about food by learning more about the food system in Ibadan[62].

2.5 Gaps in Literature

Despite the growing body of research on food beliefs and dietary behaviors, several gaps remain that this study aims to address. First, limited research has specifically focused on market women as a distinct population with unique characteristics and influences on food choices. Most studies examine general populations or specific demographic groups without considering occupational factors[63].

Second, while food fallacies have been documented in various Nigerian contexts, there is limited systematic research on the specific types and prevalence of food fallacies among urban market women. Understanding these specific beliefs is crucial for developing targeted interventions[63].

Third, the relationship between food fallacies and actual dietary consumption patterns has not been thoroughly examined in the Nigerian context. Most studies focus on either beliefs or consumption patterns separately, without examining their interconnections[64].

Finally, there is limited research on the sources and transmission of food beliefs among market women, particularly how their occupational networks influence their own food knowledge and practices. Understanding these information pathways is crucial for developing effective nutrition education strategies[64].

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2.6 Literature Reviewed Summary

This chapter gave a thorough overview of the research on food fallacies and how they affect the meal choices of market women in Oje Market, Ibadan. It says that food fallacies are false ideas about particular foods that are based on culture and custom and are often passed down from generation to generation and supported by elders, spiritual leaders, and community norms[65]. These beliefs, which aren't based on science, have a big impact on what people eat. For example, they make people avoid nutrient-rich foods like eggs, snails, and some fruits and vegetables, especially when they're pregnant, sick, or a child. The chapter talks on how these false beliefs are not just things that people get wrong on their own, but are also firmly rooted in social structures and supported by socioeconomic factors including low literacy, poverty, and lack of access to nutritional education. Although the literature reviewed formed a strong base, there are still some critical gaps that the current research seeks to fill, especially in the particular setup of market women at a particular urban-rural interface setting, such as Oje Market.

1. **Focus on Market Women in Localized Urban-Rural Areas**: Although many studies appreciate the high prevalence healthcare experts purport to be characterizing various regions in Nigeria, to a greater extent some refer to the role of market women, there is an extreme lack of comprehensive, local research that specifically examines the scope of a multi-factorial model that is impacting the food fallacies of the market women in a localized, urban-rural area like the Oje Market in Ibadan[66]. The sources often raise the market women as a population grouping of market women as being a group of consumers and distributions of foods. They are defined by their dependency on the traditional knowledge systems, low opportunity to professional nutrition training and rather powerful position of the gatekeepers of nutrition in the community[67]. Other available

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empirical research tends to extrapolate results to more traditional and conventional populations or geographic areas, but fail to offer the more integrative and focused detail necessary to appreciate the dynamics of this small to sizable demographic that is positioned where both food environments of the past and present coincide[68]. The present research attempts to magnify the scope further down into the level of food fallacies related to this exclusive and influential group.

2. **Inadequate Examination of the Interplay and Reinforcement of Socio-cultural, Economic, and Information Factors**: The literature shows how various factors contributing to food fallacies, including cultural beliefs, religious teachings, socioeconomic status (income, education, occupation), and the influence of informal and modern information networks like social media. Nonetheless, there are lots of researches that has not examined in detail the interactions of various factors and the interactions between them where they are fortify and strengthen each other, and how these interacting and compounding factors affect the tenacity of fallacies and food preferences among a susceptible group such as market women. For instance, while it is noted that women with lower incomes may believe in fallacies as a coping mechanism due to affordability, and poverty can lead to nutritional disorders, there's less clarity on how this economic vulnerability intersects with social reinforcement from elders or religious leaders, or the spread of misinformation via social media[67]. Likewise, the literature illustrates that low literacy and little access to health information causes people to refer to use of false beliefs but, the complexity of the interactions of these factors in the life and decision-making of the market women remains unexploited. The current study seeks to provide a more integrated analysis of these multifaceted influences on market women's dietary practices[64].

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3. **Limited Application and Integration of Multiple Behavioral Theories for Greater Understanding**: The review presents several relevant theoretical frameworks, including the Social Cognitive Theory (SCT), the Health Belief Model (HBM), and the Theory of Planned Behavior (TPB). The Social Cognitive Theory, the Health Belief Model, and the Theory of Planned Behavior are just a few of the ideas that are used to explain how people learn, internalize, and keep these beliefs. Though these theories present interesting insights into the behavior of individuals, there is a gap in empirical reviews to combine two or more theories to give a more in-depth and ambiguous insight into food fallacies, more appropriately in the context of vulnerable populations[69]. For example, the Theory of Planned Behavior (TPB) is presented as a strong model for understanding how attitudes, subjective norms (social pressure), and perceived behavioral control influence dietary choices. But to understand the complexity in full, we introduce the Food Systems Theory that will give a more comprehensive picture of the role and impact of food production, processing, distribution, and availability on choices, particularly within such an environment as Oje Market, where culture-related beliefs are important in determining the way in which food systems are perceived. Most studies tend to use a single theory; this study aims to bridge individual psychological factors (TPB) with a broader system and environmental influences (Food Systems Theory) to offer a more comprehensive model for addressing food fallacies among market women[69].
4. **Lack of Measured and Culturally-Historical Intervention Plans on Specific Populations**: The available literature greatly promotes culturally-apposite and community-based nutrition education as an instrument in combating food fallacies. This includes approaches to working with community leaders, making respect to local beliefs

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and the presentation of nutritional information in ways comfortable within the culture. Regardless of these recommendations, an outstanding gap in this study exists, particularly extensive empirical investigations of such interventions, uniquely designed to target the market women in Nigeria, to show their quantified effectiveness in terms of changing the strongly held food fallacies and changing normal nutritional results. While "programs respecting cultural wisdom" are suggested, the literature does not detail or assess the implementation and impact of these nuanced approaches in bridging traditional knowledge with scientific evidence for this specific demographic. Studies indicate that the change of beliefs may simply require evidence of facts. Which means, researches that not only give hypothesizes, but also critically estimates the effectiveness of culturally competent and context specific intervention measures on market women are needed[65].

5. **Lack of Studies between New Information Networks and Long-standing Knowledge Collaboration**: As shown by the review, there is wide-scale evidence of the spread of nutritional misinformation all around the world and more specifically in Nigeria itself through the avenues of social media. Although market women may not have access to modern media on a regular basis as compared to those in the urban areas, they have access to traditional social networks where misinformation is being spread. The literature identifies market women as "important people who have huge roles regarding food fallacies", suggesting they are active participants in information exchange. A deeper investigation is needed into the specific dynamics of information flow, including how market women receive, understand, and spread both traditional and modern misinformation about food, especially when they are informed with opposing advice.

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This study aims at providing solutions in order to achieve more purposeful information strategies[70].

Studies done in Nigeria show that food fallacies are common and have detrimental effects, such as malnutrition, anemia, stunted growth, and poor health for mothers and children. The chapter ends by saying that to be effective, interventions need to include culturally appropriate health education initiatives that involve community leaders and change traditional norms so that women can make informed choices about their diets that are good for their health.

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Chapter Three

Methodology

3.1 Research Design

Community-based descriptive cross-sectional research was used for the interest of this study in the influence of food fallacies on dietary choices and consumption patterns amongst Oje market women in north east local government, Ibadan, Oyo state.

3.2 Study Location

This study population consisted of 424 market women (ages 18 to 50) who sell food items in Oje Market, Ibadan[1].

3.3 Eligibility of Study Population

The study participants were selected based on the following criteria

Inclusion Criteria

- Participants between the age of 18-50 years
- Participants who gave consent to partake in the study
- Apparently healthy participants

Exclusion Criteria

- Participants who were too ill
- Participants who were unwilling to participate

3.4 Study Area

Oje Market is one of the oldest and largest food markets in Ibadan, with a history dating back over 150 years. The market operates daily but reaches peak activity on market days (every fourth day according to the traditional Yoruba calendar). The market is organized into sections

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based on commodity types, including grains, vegetables, fruits, spices, processed foods, and livestock products[1].

The market infrastructure includes permanent stalls, temporary sheds, and open-air trading areas. Recent estimates suggest the market accommodates over 3,000 traders, with approximately 75% being women engaged in food-related trade activities[2]. (Nigerian Association of Chambers of Commerce, 2022).

The study took place in Oje Market, which is in Nigeria's North East Local Government Area (LGA) of Ibadan, Oyo State. Oje Market is a big place for buying and selling goods. It has a lot of different kinds of food and agricultural products. The market is known for its lively and diverse group of sellers, with women making up the majority of those selling goods, from fresh fruits and vegetables to processed delicacies.

Ibadan is the capital and most populous city in Oyo State, Nigeria. It is the third-largest city by population in Nigeria after Lagos and Kano. It is the largest city by geographical area in Nigeria. Ibadan is located in south-western Nigeria. Although, the major inhabitants of Ibadan are Yoruba People, other tribes also live peacefully within the city. Ibadan has a large expanse of land which is very fertile for agriculture. Some of the food crops mostly produce in the study area includes cassava, yam, maize, cocoyam, melon, soybeans, cocoa, and sorghum. Ibadan is a commercial center with thriving economic activities such as agriculture, trading, handicrafts, manufacturing and service industries, malls, cinemas, train stations and booming entertainment sector[3].

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3.5 Sampling Size Determination

A stratified random sampling technique was used to select participants from the market. This technique ensures that different subgroups within the market population are adequately represented. The first step was to divide the market into different strata based on the type of food

sold (e.g., fresh produce, processed foods, snacks, beverages). Within each stratum, a random sample of market women will be selected to participate in the study. This approach helped ensure a representative sample across the various food categories[4].

The sample size will be determined using the Cochran's Formula for sample size calculation:

$n = (Z^2p(1-q)/e^2$

Where:

n = sample size

Z = Z-value (1.96 for 95% confidence level)

p = estimated proportion of market women with food fallacies (0.5 if unknown)

q = 1-p (0.5)

e = margin of error (0.05 for 5%)

Calculation:

$n = (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2$

$n = 3.8416 \times 0.25 / 0.0025$

$n = 0.9604 / 0.0025$

$n = 384.16$

The minimum required sample size is 385 market women.

Adjusting for non-response:

Adding 10% for potential non-response:

$385 + (385 \times 0.1) = 423.5$

Final Sample Size: Approximately 424 respondents

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3.6 Sample and Sampling Technique

This study was carried out between the month of April to June 2025. Eligible participants were selected from the designated local government on randomized sampling method. All participants were counseled based on their nutritional status after it was obtained

3.7 Research Instrument

The research instrument for this study was a self-administered questionnaire. The questionnaire was adapted from previous literatures on the influence of food fallacies, dietary choices and consumption patterns among market women. The questionnaire was used to collect information on the knowledge and prevalence of food fallacies, and the consumption pattern among market women. The questionnaire was made up of four sections as follows:

SECTION A; Socio-Demographic and Economic Data of Participants

SECTION B; Knowledge and Prevalence of Food fallacies

SECTION C; Impact of Food fallacies on Dietary choices and Consumption pattern

SECTION D; Source and Transmission of Food fallacies

The instrument was designed in English language and translated orally to Yoruba language, which is the main language of communication in Ibadan, the study location. The questionnaire is translated orally to Yoruba language for respondents that do not understand English. The validity of the instrument was ensured by reviewing relevant literature on the variables in the study objectives after which the project supervisor reviewed and made a suggestion for improvement on the instrument. It was also scrutinized by experts in the field of human nutrition and dietetics to ensure content validity, who made relevant corrections and suggestions before the draft was tested for reliability.

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3.8 Validity of Research Instrument

The following validation process were used to guarantee internal validity, or the instrument's capacity to measure what it is intended to:

1. Creation of a preliminary instrument by researcher and review of pertinent literature was done.

2. The instrument was prepared in plain English so that both research assistants and respondents could easily comprehend it.

3. Having impartial peer and expert assessments of the document, with a focus on data processing.

4. To further improve the instruments, feedback from the supervisor and criticism during the proposal presentation were incorporated.

5. The questionnaire was translated from English into Yoruba and back again by independent individuals.

On the other hand, using a probability sampling technique for the observation and a reasonably large sample size for the survey ensured external validity, or the capacity of the study findings to be generalised from a sample size to the reference population.

3.9 Reliability of the Research Instrument

This is the instrument's quality in terms of the data generated being reproducible. In other words, how much data is provided or acquired when a measurement is taken than once. This was ensured by pre-testing the questionnaire with a pilot test and analysing it using the Cronbach's Alpha model based on standardized items. A result above 0.7-0.8 was deemed satisfactory. Prior to their employment in the primary study, the pre-tested instruments underwent additional refinement.

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3.10 Method of Data Collection

A letter of introduction was obtained from the University management and A letter of Consent was taken to the community. The researcher also explained to the authorities of the community for approval to carry out the research in the community. The procedure used was in three sections which include; questionnaire administering, anthropometric and counseling sessions. Data was collected by the researcher with the assistance of one research assistant who helped in the administration of the questionnaire. The research assistant was trained by the researcher on the ethical conduct of research, administration of questionnaire, and the content of the instrument.

Administration of Research Instrument

The questionnaire was administered by the interviewer by asking each question, explaining when clarification is needed and recording the response of each respondent. For some respondent who insisted on filling the questionnaire, the interviewer explained each section of the questionnaire and was advised to ask for further clarification if there be any need.

Each respondent was courteously approached, and the necessary information about the study was given to them in the language they understand best. Participants were educated on the purpose on the study and their consent were obtained before the questionnaire was administered.

The questionnaire contained socio-demographic and economic characteristics of the respondents which includes age, sex, religion, marital status, years they have sold for and the type of food items sold to determine characteristics of study respondents, home/work food environment to determine the proximity of food fallacies, lifestyle habit of the respondent which include dietary consumption and pattern of the food around.

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A set of structured questionnaires was used to collect quantitative data on participants' sociodemographic characteristics, knowledge and food-related beliefs, sources of transmission of information and consumption patterns. The questions were designed to assess the prevalence of food fallacies and their influence on dietary choices. Closed-ended questions were focused on specific beliefs (e.g., avoidance of certain foods, the perceived health risks of specific food items), to measure the strength of these beliefs. The questionnaire was reviewed to ensure consistency and completeness before leaving the field. The questionnaire was sorted and coded serially for easy entry and recall.

3.11 Method of Data Analysis

After data collection, each questionnaire was numbered, and a coding guide was prepared to facilitate entry of the data into a computer software. The data collected from the questionnaires were analyzed using descriptive statistics (counts, frequencies, percentages, means, and standard deviations) to describe the demographic characteristics of the participants, the prevalence of food fallacies, and the dietary patterns. The level of significance was set at 5%. All statistical analyses were carried out using the IBM SPSS Statistics, Version 25. Analyses emphasized descriptive summaries and tests of association between food fallacy adherence and sociodemographic characteristics, with significance predefined at $p<0.05$. Cross-tabulations was used to examine relationships between food fallacies and dietary behaviors, with inferential statistical tests such as the Chi-square test employed to determine the significance of these relationships. Chi-square test statistic was conducted to investigate the relationship between sociodemographic characteristics and knowledge on food fallacies, and source of food fallacies.

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3.12 Ethical Approval

The proposal was submitted to the Ethics and Research Committee of Lead City University, Ibadan and was obtained with the project number LCU-REC/214.

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Endnotes

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Chapter Four

Results and Discussion of Findings

4.1 Socio-demographic characteristics of respondents

Table 4.1 shows the socio-demographic characteristics of respondents. The mean age of respondents was 41.02±14.32 years with majority aged 36-45 years (31.3%). A majority of the respondents were married (65.9%), had tertiary level of education (35.6%), practiced Christianity (51.2%).

About a third of the respondents (35.8%) had been selling in Oje market for 6-10years, 24.3% for 1-5 years, 20.2% for above 10 years, and 19.7% for less than a year. The respondents mainly sold meat and fish (25.7%), dairy products (22.6%), and fresh vegetables and fruits (19.5%).

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Table 4.1a: Socio-demographic characteristics of respondents

Variable	Frequency	Percentage
Age (years)	41.02±14.32	
18 – 25	57	13.7
26 – 35	97	23.3
36 – 45	130	31.3
46 – 55	74	17.8
>55	58	13.9
Marital status		
Single	82	19.7
Married	274	65.9
Divorced	38	9.1
Widowed	22	5.3
Level of Education		
No formal education	85	20.4
Primary education	102	24.5
Secondary education	81	19.5
Tertiary education	148	35.6
Religion		
Christianity	213	51.2
Islam	139	33.4
Traditional religion	64	15.4

Source: Author's Findings 2025

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Table 4.1b: Socio-demographic characteristics of respondents

Variable	Frequency	Percentage
Duration of selling in Oje		
Less than a year	82	19.7
1-5 years	101	24.3
6-10 years	149	35.8
Above 10 years	84	20.2
Type of food items sold		
Fresh vegetables and fruits	81	19.5
Grains and cereals	46	11.1
Meat and fish	107	25.7
Dairy products	94	22.6
Processed foods	48	11.5
Others	40	9.6

Source: Author's Findings 2025

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4.2 Respondent's knowledge of food fallacies

Table 4.2 shows respondent's knowledge of food fallacies. A majority of the respondents have heard the term "Food Fallacy" before (67.1%) and define it as a cultural or traditional practice regarding food (37.0%), or a religious rule about food consumption (19.5%), or a belief about food with no scientific proof (12.5%), while 31.0% do not know how to define it. Almost a third of the respondents (31.7%) believe that some food beliefs are true, 26.9% believe all food beliefs are true, while 21.4% believe food fallacies are false, and 20.0% were not sure. Among respondents, 30.8% strongly believe in food fallacies and pass them down to their children while 38.0% do not teach their children these food beliefs. In addition, 42.1% have never received formal education or health advice about food fallacies while 32.2% claimed to have received them from health professionals. Of all respondents, 37.7% identified that they would change their beliefs about food fallacies if given scientific information.

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Table 4.2a: Respondent's knowledge of food fallacies

Variable	Frequency	Percentage
Have you ever heard of the term food fallacy?		
Yes	279	67.1
No	63	15.1
Not sure	74	17.8
How would you define food fallacy?		
A belief about food with no scientific proof	52	12.5
A cultural or traditional practice regarding food	154	37.0
A religious rule about food consumption	81	19.5
I don't know	129	31.0
Do you believe that food fallacies are true?		
Yes, all food beliefs are true	112	26.9
Some food beliefs are true	132	31.7
No, food fallacies are false	89	21.4
I am not sure	83	20.0
Do you teach your children or others about food fallacies?		
Yes, I strongly believe in them and pass them down	128	30.8
Yes, but I tell them to take it lightly	92	22.1
No, I do not teach them these food beliefs	158	38.0
I try to discourage them from believing in such food fallacies?	38	9.1

Source: Author's Findings 2025

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Table 4.2b: Respondent's knowledge of food fallacies

Variable	Frequency	Percentage
Ever received formal education or health advice about food fallacies?		
Yes, from health professionals	134	32.2
Yes, from school or formal education	58	13.9
Yes, from the media (tv, radio, reporters)	49	11.8
No, i have never received such information	175	42.1
If given scientific information, would you change your beliefs about food fallacies?		
Yes	112	27.1
No	156	37.7
Not sure	146	35.3

Source: Author's Findings 2025

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4.3 Knowledge of food fallacies among respondents

Figure 4.1 shows the knowledge of food fallacies among by respondents. When asked, "Which of the following food beliefs have you heard before?", respondents were positive about; pregnant women should not eat snails to prevent their babies from drooling (73.1%), drinking pap with milk causes excessive weight gain (74.0%), eating cold food causes illness (66.8%), eating bush meat can cause spiritual attack (70.4%), bitter food cleanse the blood (66.8%), and eating twin bananas will make a woman give birth to twins (65.9%). The most negative response was "eating eggs make children steal (35.3%).

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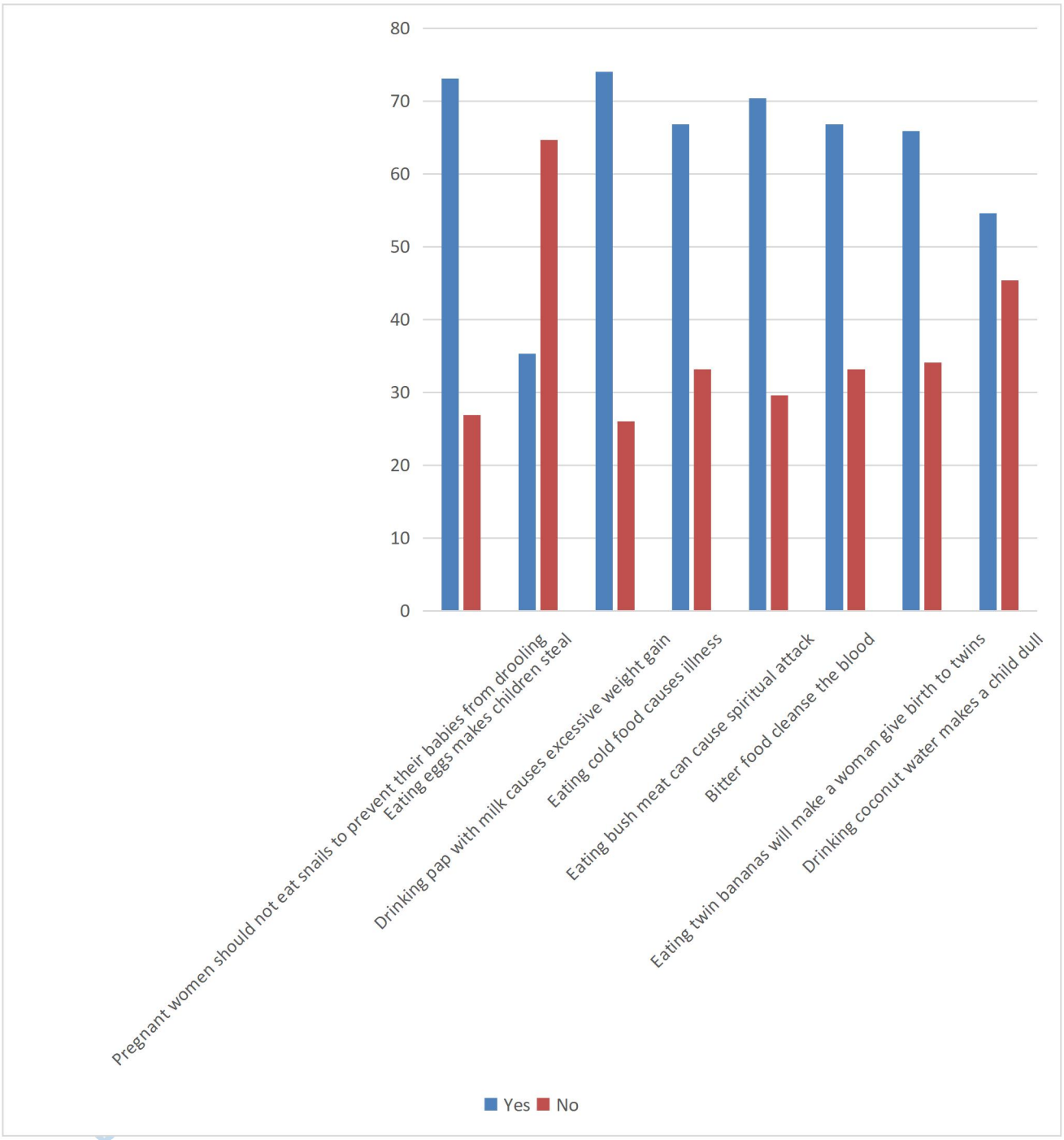


Figure 4.1 Knowledge of food fallacies among respondents

4.4 Focus of food fallacies respondents believe in

Figure 4.2 shows the food fallacies respondents believe in. The most prevalent fallacies among respondents where pregnant women should not eat snails to prevent their babies from drooling (38.7%), drinking pap with milk causes excessive weight gain (40.1%), eating cold food causes illness (34.1%), eating bush meat can cause spiritual attack (37.5%), bitter food cleanse the blood (39.9%), and eating twin bananas will make a woman give birth to twins (43.0%). The least prevalent food fallacy was "eating eggs make children steal (17.5%).

Among the respondents, 80.3% claimed not to believe in any food fallacy.

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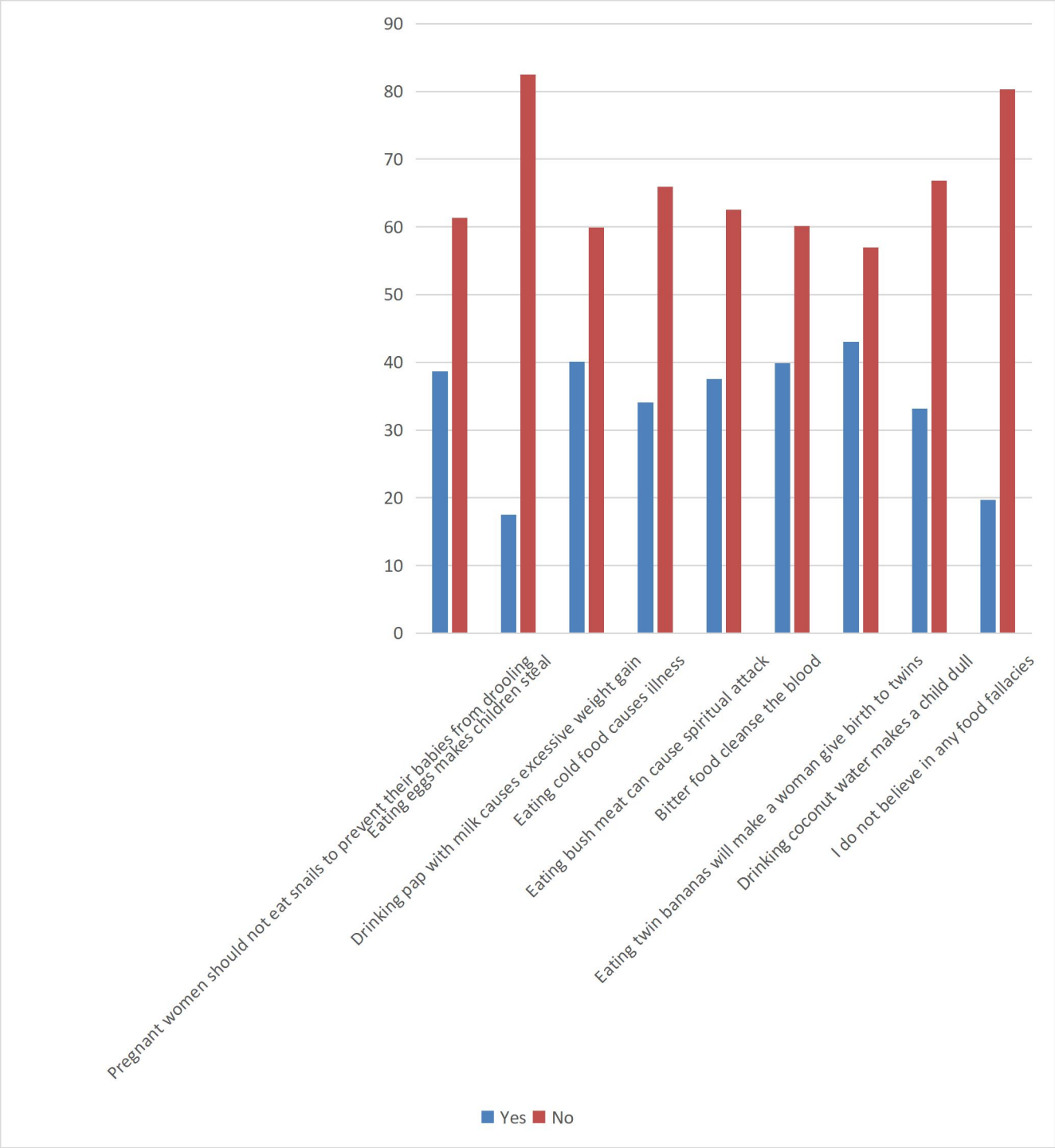


Figure 4.2 Prevalence of food fallacies respondents believe in

4.5 Sources of food fallacies among respondents

Figure 4.3a shows the sources of food fallacies among respondents. The main sources of food fallacies identified by respondents were parents/grandparents (74.0%), friends/neighbours (61.3%), and community elders (55.0%).

Figure 4.3b shows frequency of discussions heard by respondent's food beliefs. Discussions on food beliefs were heard by respondents mainly either occasionally (30.3%) or rarely (26.9%)

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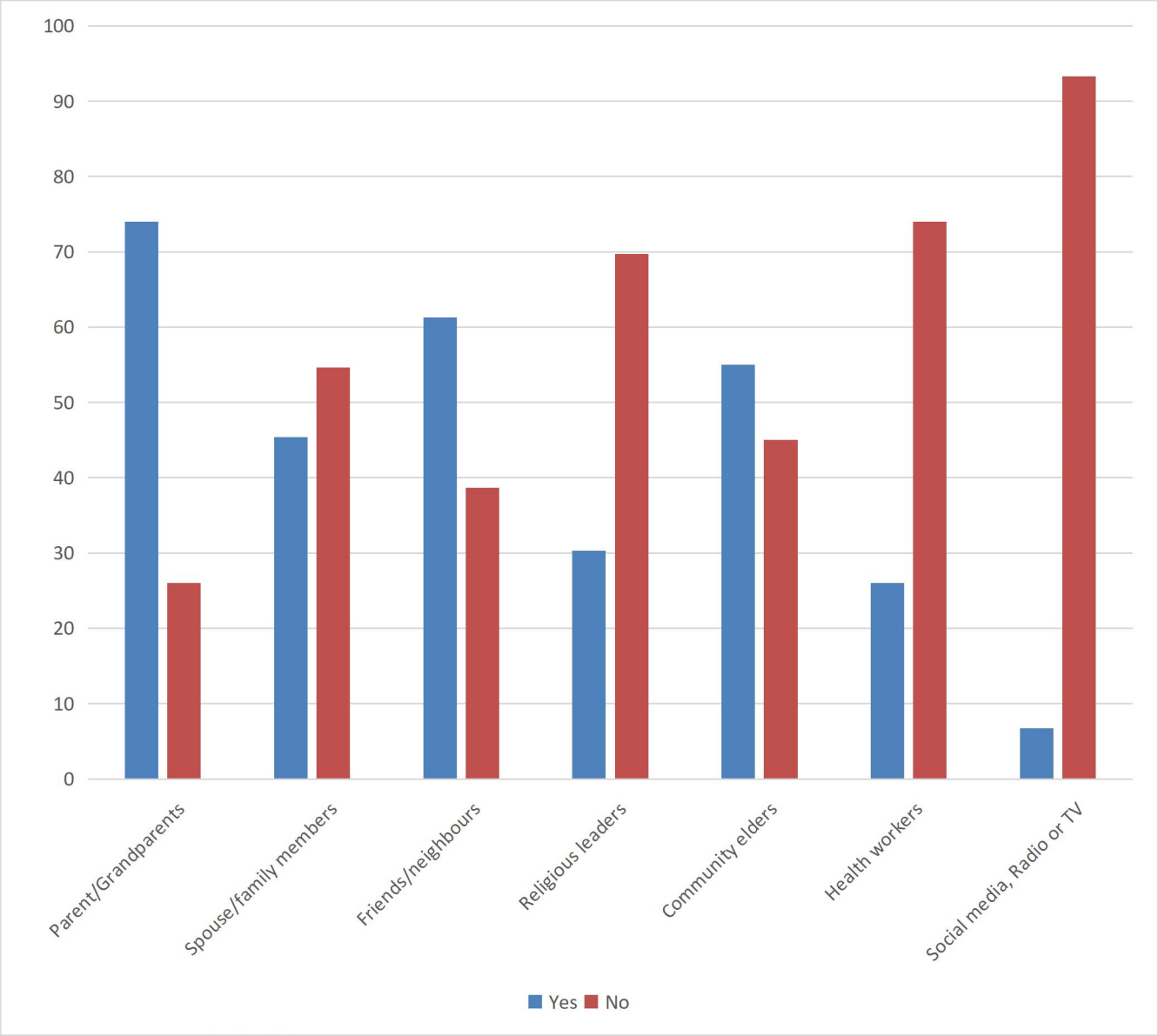


Figure 4.3a: Sources of food fallacies among respondents

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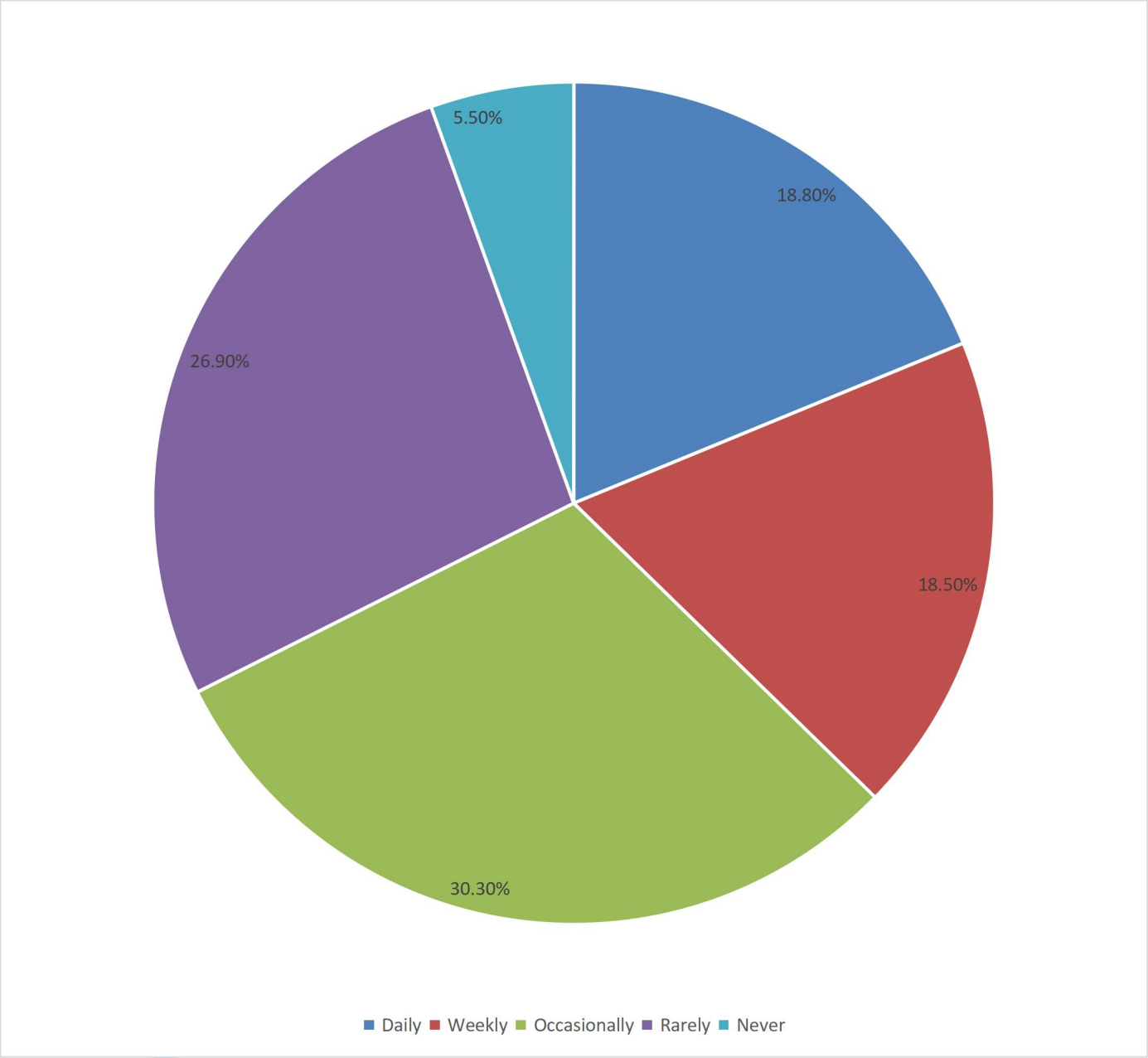


Figure 4.3b: Frequency of discussions heard by respondents on food beliefs.

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4.6 Impact of food fallacies on respondent's food choices

Table 4.3 shows the impact of food fallacies on respondent's food choices. A total of 68.7% of the respondents reported that food fallacies influence their food choice, 38.2% always avoid certain foods due to food beliefs, 35.7% have food beliefs that affects what they feed their children, and 53.6% believe food fallacies affects their health and nutrition positively while 35.3% do not think it affects their health and nutrition.

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Table 4.3: Impact of food fallacies on respondent's food choices

Variable	Frequency	Percentage
Do food fallacies influences your choice of food?		
No	130	31.3
Yes	285	68.7
How often do you avoid certain foods due to food beliefs?		
Always	159	38.2
Sometimes	101	24.3
Rarely	65	15.6
Never	91	21.9
Have food beliefs that affects what you feed your children or family?		
No	266	64.3
Yes	148	35.7
Do you think food fallacies affects your health and nutrition?		
Yes, negatively	45	10.9
Yes, positively	223	53.9
No	146	35.3

Source: Author's Findings 2025

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4.7 Source and transmission of food fallacies among respondents

Table 4.4 shows the source and transmission of food fallacies among respondents. Respondents mainly first heard about food fallacies from family members (65.9%) and 66.7% actively teach them to younger generations. About half (54.6%) of the respondents claimed they would be open to changing their beliefs if given scientific explanations, and 58.2% claimed to have received nutrition education from health workers. Respondents identified family and community elders (56.0%) and health professionals (48.6%) as their trusted source for food and nutrition advice while 19.2% and 21.9% considered religious leaders and media, respectively, as their trusted source.

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Table 4.4a Source and transmission of food fallacies among respondents

Variable	Frequency	Percentage
Where did you first hear about food beliefs?		
From family members	274	65.9
From religious institution	58	13.9
From community elders	67	16.1
From media	17	4.1
Do you actively teach these food beliefs to younger generations?		
No	138	33.3
Yes	277	66.7
Would you be open to changing your beliefs if given scientific explanations?		
No	188	45.4
Yes	226	54.6
Ever received nutrition education from health workers?		
No	174	41.8
Yes	242	58.2
What sources do you trust the most for food and nutrition advice?		
Family and community elders		
No	183	44.0
Yes	233	56.0

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Source: Author's Findings 2025

Table 4.4b: Source and transmission of food fallacies among respondents

Variable	Frequency	Percentage
Religious leaders		
No	336	80.8
Yes	80	19.2
Health professional		
No	214	51.4
Yes	202	48.6
Media		
No	325	78.1
Yes	91	21.9

Source: Author's Findings 2025

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4.8 Presentation of Data

This section presents the research findings organized according to the research questions established in Chapter One. The data presentation follows a logical sequence, beginning with the strength of associations between beliefs, knowledge, and behaviors, followed by demographic correlations, and concluding with prevalence patterns.

4.8.1 Association of Demographics with Knowledge and Beliefs

Presented in Tables 4.5a to 4.5b are the chi-square analysis of associations between demographics of level of educational and religion with knowledge of food fallacies. The chi-square test revealed a significant association between level of education and religion with knowledge of food fallacies χ^2 (6, N = 416) = 80.934, P < .0001, and χ^2 (4, N = 416) = 12.250, P = .016, respectively in Table 4.5a. In Table 4.5b, the chi-square test revealed a significant association between education and religion with beliefs in food fallacies χ^2 (9, N = 416) = 60.659, P < .0001, and χ^2 (6, N = 416) = 17.141, P = .009, respectively.

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Table 4.5a: Association of Demographics with Knowledge of Food Fallacies

		Have you ever heard of the term food fallacy?			Total
		Yes	No	Not sure	
Level of education[1]	No formal education	30	17	38	85
	Primary education	63	22	17	102
	Secondary education	57	14	10	81
	Tertiary education	129	10	9	148
Total		**279**	**63**	**74**	**416**
Religion[2]	Christianity	146	35	32	213
	Islam	96	22	21	139
	Traditional religion	37	6	21	64
Total		**279**	**63**	**74**	**416**

[1]Chi-Square 80.934, df: 6, P < .0001

[2]Chi-Square 12.250, df: 4, P = .016

Source: Author's Findings 2025

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Table 4.5b: Association of Demographics with Beliefs in Food Fallacies

		Do you believe that food fallacies are true?				Total
		Yes, all are true	Some are true	No, all are false	I am not sure	
Level of Education[1]	No formal education	42	14	8	21	85
	Primary education	22	40	15	25	102
	Secondary education	16	33	13	19	81
	Tertiary education	32	45	53	18	148
Total		**112**	**132**	**89**	**83**	**416**
Religion[2]	Christianity	49	66	51	47	213
	Islam	33	50	30	26	139
	Traditional religion	30	16	8	10	64
Total		**112**	**132**	**89**	**83**	**416**

[1]Chi-Square 60.659, df: 9, P < .0001

[2]Chi-Square 17.141, df: 6, P = .009

Source: Author's Findings 2025

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4.8.2 Association of Demographics (Level of Education and Religion) with Impact of Food Fallacies

Presented in Tables 4.6a to 4.6c are the chi-square analysis of associations between demographics of level of educational and religion with impact of food fallacies on food choices. In table 4.6a, the chi-square test revealed a significant association between level of education and religion respectively, with influence of food fallacies on food choices χ^2 (3, N = 415) = 8.211, P = .042, and χ^2 (2, N = 415) = 8.394, P = .015 respectively. In Table 4.6b, the chi-square test revealed a significant association between level of education and religion respectively, with influence of food fallacies on food avoidance χ^2 (9, N = 415) = 32.826, P = .0001, and χ^2 (6, N = 415) = 11.063, P = .086 respectively.

Table 4.6c, the chi-square test revealed a significant association between level of education and religion respectively, with influence of food fallacies on family diet χ^2 (3, N = 415) = 48.166, P = .0001, and χ^2 (2, N = 415) = 7.764, P = .021 respectively.

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Table 4.6a: Association of Demographics with Influence of Food Fallacies on Food Choice

		Do food fallacies influences your choice of food?		Total
		No	Yes	
Level of education[1]	No formal education	16	68	84
	Primary education	35	67	102
	Secondary education	31	50	81
	Tertiary education	48	100	148
Total		**130**	**285**	**415**
Religion[2]	Christianity	79	134	213
	Islam	39	100	139
	Traditional religion	12	51	63
Total		**130**	**285**	**415**

[1]Chi-Square 8.211, df: 3, P = .042

[2]Chi-Square 8.394, df: 2, P = .015

Source: Author's Findings 2025

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Table 4.6b: Influence of Food Fallacies on Food Avoidance

		How often do you avoid certain foods due to food beliefs?				Total
		Always	Sometimes	Rarely	Never	
Level of education[1]	No formal education	48	18	10	9	85
	Primary education	28	29	19	26	102
	Secondary education	19	29	14	19	81
	Tertiary education	64	25	22	37	148
Total		**159**	**101**	**65**	**91**	**416**
Religion[2]	Christianity	73	49	37	54	213
	Islam	52	36	23	28	139
	Traditional religion	34	16	5	9	64
Total		**159**	**101**	**65**	**91**	**416**

[1] Chi-Square 32.826, df: 9, P < .0001

[2] Chi-Square 11.063, df: 6, P = .086

Source: Author's Findings 2025

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Table 4.6c Chi square analysis between demographics and influence of food fallacies on family diet

		Do food beliefs affect what you feed your children or family?		Total
		No	Yes	
Level of education	No formal education	34	51	85
	Primary education	82	20	102
	Secondary education	66	14	80
	Tertiary education	84	63	147
Total		266	148	414
Religion	Christianity	148	64	212
	Islam	85	53	138
	Traditional religion	33	31	64
Total		266	148	414

[1]Chi-Square 48.166, df: 3, P < .0001

[2]Chi-Square 7.764, df: 2, P = .021

Source: Author's Findings 2025

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4.8.3 Correlation between Knowledge of Food Fallacies and Impact of Food Fallacies on Food Choices

In table 4.7, there was a weak positive correlation between knowledge of food fallacy and household food choices and perceived effect on health and nutrition, based on belief in food fallacies (r_s (412) = .15, P < .01, and r_s(412) = .19, P < .0001) respectively. There was also observed significant negative correlations found between believing that food fallacies are true and its impact on personal and household food choices (r_s(413) = -.43, P < .0001, and r_s(412) = -.32, P < .0001). However for correlation between belief in food fallacies and avoidance of certain foods as well as perceived effect on health and nutrition, significant positive relationships were observed (r_s(414) = .44, P < .0001, and r_s(412) = .31, P < .0001).

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Table 4.7: Correlation between Knowledge of Food Fallacies and Impact of Food Fallacies on Food Choices

		Do FF influence your food choice?	How often do you avoid certain foods due to food beliefs?	Do food beliefs affect what you feed your children or family?
Have you ever heard of the term food fallacy?	Correlation Coefficient	-.080	-.073	**.153****
	Sig. (2-tailed)	.103	.140	.002
	N	415	416	414
How would you define food fallacy?	Correlation Coefficient	-.050	**-.126***	**.206****
	Sig. (2-tailed)	.309	.010	.000
	N	415	416	414
Do you believe that food fallacies are true?	Correlation Coefficient	**-.426****	**.435****	**-.326****
	Sig. (2-tailed)	.000	.000	.000
	N	415	416	414

Source: Author's Findings 2025

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4.9 Discussion of Findings

This study shows the knowledge, prevalence, and effect of food fallacies on market women in Oje Market which provided lots of information on the adherence of traditional beliefs in food preferences and nutrition practice in a Nigerian marketplace.

The study population comprises mostly of middle-aged women (mean age 41.02±14.32 years) with the largest proportion being in the 36-45 years age group. This demographic characteristic is important because they are the people who may be well established in their business life and they might have gathered a lot of traditional knowledge over the years. The high proportion of married respondents suggests that these individuals may serve as key influencers in household food decisions and child-rearing practices, potentially spreading food beliefs across generations[1].

The educational profile revealed that while had tertiary education, a substantial portion had only primary education or no formal education. This pattern of schooling could facilitate continued existence of scientifically uninformed dietary ideologies in different ways since schooling has been linked to critical thinking in which modern western ideas about nutrition may help recipients differentiate between evidence-based nutritional information and culture superstition. The religious composition, with Christianity being predominant, followed by Islam, suggests that religious beliefs may intersect with food fallacies in this population[2].

The finding that of respondents had heard of the term "food fallacy" indicates reasonable awareness of the concept within the market community. Nevertheless, the fact that definitions given by respondents vary does show conceptual confusion. Although they got it right to promote food fallacies as cultural or traditional behaviors towards food, 37.0 percent of those

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interviewed, not many at that, identified the food Fallacies as merely beliefs that lack scientific substantiation, which is a more precise definition of food fallacies using the lens of nutritional sciences[2].

The shaky sentiments surrounding faith in food fallacy where 58.6 percent believed either all or some of the food beliefs to be true is evidence of the relationship between traditional knowledge and scientific knowledge. This observation concurs with other studies where it has been argued that traditional beliefs also commonly coexist with modern knowledge leading to more hybrid forms of belief systems that are able to inform health behaviours[3].

Recent research has examined how "religious beliefs profoundly influence how they are prepared, and the timing of consumption" Religious Dietary Practices: Health Outcomes and Psychological Insights From various countries supporting the research findings about the intersection of religious composition (Christianity 51.2%, Islam 33.4%) with food beliefs[4].

The magnitude of high levels of awareness on certain food fallacies between 65.9 to 74.0 implies that they are widely spread among members of the society. The most commonly known fallacies included beliefs about pregnant women avoiding snails, drinking pap with milk causing weight gain, and bush meat causing spiritual attacks. The beliefs cut across various classifications such as the pregnancy-related restrictions, the weight-related maintenance issues and food consumption-related attributions in the supernatural world[3].

Interestingly, the actual belief in these fallacies was much less than the levels of awareness with percentages of 17.5 to 43.0. The most believed fallacy was that eating twin bananas causes twin births, while the least believed was that eating eggs makes children steal. This difference between knowing and believing indicates that there may be tempering influences

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of being interested in education or other sources of information that exposes people to the reality of fallacies[5].

The identification of parents/grandparents, friends/neighbors, and community elders as primary sources of food fallacies underscore the social and intergenerational nature of their transmission. This result is in line with the social learning theory that underscores the importance of family community networks in passing knowledge. Disturbingly, the active teaching of these convictions to younger generations by 66.7 percent of the respondents denotes a high level of cultural transmission that can be dangerous in the long run and propagate these fallacies[2].

The relatively infrequent discussion of these beliefs suggests that while they are transmitted, they may not be actively debated or questioned within the community, potentially allowing misconceptions to persist unchallenged[5].

The substantial impact of food fallacies on respondents' food choices, with 68.7% reporting influence and 38.2% always avoiding certain foods, demonstrates the practical significance of these beliefs. This behavioral effect is carried out into the family feeding patterns where 35.7 percent of them indicated that they base what they feed their kids in the food beliefs. These practices might only have significant implication on nutritional adequacy and dietary diversity especially on susceptible people like children and mothers carrying unborn babies[6].

The perception that food fallacies positively affect health and nutrition is particularly concerning from a public health perspective, as it may lead to resistance to evidence-based nutritional interventions and could potentially result in nutritional deficiencies or imbalances[6].

The mixed trust patterns, with family and community elders being most trusted compared to health professionals, reveals the challenge facing public health interventions. Although the

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health professionals are trusted in more than one-third of the population, the conventional authority is still more pronounced. This result indicates that it might be necessary to implement effective nutrition education interventions by influencing the traditional structure of authority or developing methods of increasing the validity of the scientific sources[2].

Positively, about 54.6 percent of respondents showed receptivity to shifting in beliefs upon exposure to scientific explanations, and 58.2 percent of the respondents stated that they had gotten nutrition educations by health workers. It implies a possible openness to the evidence-based interventions, yet the existence of fallacies shows that the past education initiatives might have been incomplete or not planned successfully.

Such findings are evidence to the fact that culturally sensitive methods incorporating nutrition education are needed that would not overrule traditional beliefs but could slowly integrate scientific evidence in to them. The strong trust in local and community elders indicates that they may be an effective avenue to push the evidence-based nutrition approaches[7].

A Portuguese study examined food myths as "nutritional concepts poorly justified or even contradict existing scientific evidence that individuals take as the truth" Food Myths or Food Facts? Study about Perceptions and Knowledge in a Portuguese Sample - PMC, which directly parallels your definition of food fallacies. This aligns with the finding that only 37.0% of respondents identified food fallacies as beliefs lacking scientific substantiation. This reveals a fundamental issue: people don't recognize what constitutes a food myth versus scientific fact, making them vulnerable to misinformation[8].

The research also illustrates that it is not only necessary to fill the knowledge gap but also to deal with the social and cultural aspects that sustain food fallacies. An approach that can be

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more effective than the one described in the previous paragraph is searching within locally based knowledge systems to find interventions that support the existing social framework and at the same time address harmful beliefs[7].

Although this study is an eye opener of harsh realities as regards to food fallacies in an urban market setting in Nigeria, it can only be applied within the context of the population in which the research was conducted. Future studies may consider how individual fallacies relate to nutritional outcomes, whether varying intervention strategies work better or worse, and what fallacies pertaining to food are like in other cultures and in education structures[9].

Food fallacies tend to persist even with educational intervention, which indicates that more evolutionary intervention techniques should be used to respond to the interactive social and traditional philosophies with the scientific knowledge on food[9].

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Endnotes

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Chapter Five

Conclusion

5.1 Summary of Findings

This study shows the effect of food fallacies on dietary preferences and food habits among market women at the Oje Market, Ibadan, according to many research questions that aimed at understanding the occurrence, origin, and effects of food related fallacies on nutritional activities. There are several food fallacies that compromises people's nutritional knowledge, making it difficult to follow adequate dietary patterns.

Regarding the prevalence of food fallacies among the study population, the findings revealed that 67.1% of respondents had heard of the term "food fallacy," indicating substantial awareness within the market community. Nevertheless, in spite of this consciousness, to a great extent there existed conceptual confusion whereby just 12.5 percent were conceptually accurate in defining the fallacies of food as culturally non-scientifically backed beliefs; 37.0 percent chose to define them as cultural or traditional practices. Specific food fallacies showed high awareness rates ranging from 65.9% to 74.0%, with beliefs about pregnant women avoiding snails (73.1%), drinking pap with milk causing weight gain (74.0%), and bush meat causing spiritual attacks (70.4%) being most widely known. Interestingly, there was a significant difference between average actual belief (17.5 to 43.0 percent) and awareness for each of the fallacies indicating that exposure to alternate sources of information may be acting as a corrective to the acceptance of these beliefs.

Regarding the origins/source of transmission of the food fallacies, there was a more of a social and even an intergenerational trend in the study. Parents and grandparents emerged as the primary source (74.0%), followed by friends and neighbors (61.3%), and community elders (55.0%). This observation shows how much these ideas are instilled in the family and communal

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units. It was also found in the research that cultural transmission was active in which 66.7 percent of the respondents had been teaching the younger generations these beliefs, which implies the possibility of this cultural transmission process continuing through time. Trust patterns showed that family and community elders (56.0%) were more trusted than health professionals (48.6%) for food and nutrition advice, highlighting the challenge facing evidence-based nutrition interventions.

The impact of food fallacies on dietary choices and consumption patterns was substantial and statistically significant ($p < 0.001$). This paper indicated that the study identified 68.7 percent of the respondents indicated that their choice of foods was affected by food fallacies, and 38.2 percent indicated they never ate particular foods because of the food fallacies. This behavioral effect was found to have impact on the feeding practices within a family with 35.7% saying that the beliefs about the food had any influence on what they fed their children or any other relatives. The most troubling observation was possibly the fact that 53.9 percent of the respondents viewed food fallacies as being beneficial to their health and nutrition, which might cause the reluctance to accept evidence-based nutritional health interventions and, in certain circumstances, cause nutritional deficiencies.

As to the interactions between socio-demographic variables and the belief in food fallacies, the issue of education became a predictive variable. This research found out that 49.4 percent of the illiterate population strongly believed in food myths as opposed to 21.6 percent of the population of individuals who are recruited in universities. This learning scale postulates that school-based learning can enable one to think critically in order to know the difference between nutritional knowledge using evidence, and cultural mythology. The influence of marital status and religious affiliation also formed a significant correlation with prevalence of fallacies with

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married persons and persons with firm religious beliefs being more expected to be found holding to the old beliefs on food.

5.2 Conclusion

The results of this study have established that food fallacies constitute a large and complex problem to optimal nutriment amongst women traders in Oje Market, in Ibadan. Such beliefs are not only just innocent cultural traditions but form large obstacles to evidence-based nutritional practices that may truly have an impact upon the health outcomes of individuals and their families.

The existence of food fallacies in the face of objectively reasonable levels of education, access to health information show the coincidence of the traditional knowledge systems, social networks and scientific insights. The high intergenerational transmission rates reported in this paper imply that this belief is ingrained in the very cultural structure of the culture and should not be changed using the traditional methods of health education.

The observed curvilinear educational gradient in the adherence to fallacies presents challenges and opportunities to intervention itself. Although higher education seems to provide a certain insulation against believing unscientific beliefs about food, the high rate of low-educated traders means that different mechanisms towards dissemination of knowledge should be sought. The observation that authority figures are the most trusted compared to health professionals shows that effective interventions need to be applied into the preset social frameworks instead of trying to change these frameworks altogether.

The obvious practical implications of food fallacies on real food preferences and feeding behaviours illustrate the necessity of dealing with these beliefs. As two-thirds of respondent report that they have fallacies to guide their food choice, and one-third admit that they let those

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beliefs be reflected in their choice of food to their children, the risk of developing nutritional deficiencies is large. This is particularly concerning given that these are economically active women who serve as key decision-makers in their households' nutritional wellbeing.

The issue of awareness compared with views indicates that exposure to alternative sources is having some mediating power on falling-into-fallacy acceptance. This finding, combined with the substantial proportion of respondents (54.6%) expressing openness to changing their beliefs when presented with scientific explanations, indicates that there is potential for evidence-based interventions to make meaningful progress in addressing these issues.

Nonetheless, the level of the challenge cannot be underrated. The myriad positive social and cultural underpinnings of such beliefs, their entrenchment in religious and traditional beliefs, and their spread by way of credible individual social networks all suggest that such beliefs cannot be expected to be overcome through shallow educational efforts. Rather, it will be essential to employ holistic strategies which recognize the social roles played by such beliefs as they are gradually replaced by scientific alternatives.

5.3 Recommendations

Based on the results of the study, the following recommendations are specifically tailored to address the identified challenges, transmission mechanisms, and trust patterns within this population:

1. Create Culturally-Integrated Nutrition Education Programs: The programs should work within existing belief systems to introduce scientific evidence gradually, demonstrating how evidence-based nutritional practices can enhance, rather than replace, traditional knowledge. For example, the programs should provide scientific rationale for avoiding

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highly prevalent fallacies, such as the belief that drinking pap with milk causes excessive weight gain.

2. Utilize Traditional Authority Figures as Nutrition Ambassadors: This addresses the trust gap identified, where Family and community elders (56.0%) are the most trusted sources of food advice, compared to Health professionals (48.6%). Evidence-based nutritional knowledge should be imparted to these trusted figures, enabling them to disseminate correct information within their influential social networks. This strategy leverages the existing social structure to ensure that accurate information reaches the population.
3. Establish Community-Based Peer Education Networks: The study's findings regarding the influence of friends and neighbors suggest that peer-to-peer education networks could be highly effective. These women should be trained to serve as peer educators, sharing their experiences and influencing their colleagues' beliefs and consumption patterns through existing informal networks in the market.
4. Establish Regular Health Professional Engagement: Although trust in health professionals was lower than in traditional authorities, nearly half of the respondents (48.6%) still considered them trustworthy sources. Frequent interaction between health professionals and market communities in the form of- health talks, consultation sessions, and collaborative- problem solving- could slowly create a sense of trust and potentially offer chances of evidence-based nutrition education.

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5.4 Contribution to Knowledge

This study can have some of the following major contributions in the knowledge about food fallacies and the effect they have on the nutritional practices in the urban Nigerian market environment by promoting the knowledge in various fields:

1. Empirical Documentation of Food Fallacies in Nigerian Urban Markets: The paper gives the first detailed empirical report on certain food fallacies and the extent of their awareness among the trade women in a major Nigerian urban market. The detailed quantification of belief rates for specific fallacies (ranging from 17.5% to 43.0%) and the identification of the most influential beliefs creates a foundational knowledge base for understanding how traditional food beliefs manifest in contemporary urban commercial settings.
2. Theoretical Foundation of learning about cultural-scientific Knowledge Integration: The study gives some contribution regarding the theoretical setting on the integration of traditional and scientific knowledge in the nutrition arena. The finding that awareness of fallacies (65.9% to 74.0%) significantly exceeds actual belief (17.5% to 43.0%) suggests a more nuanced model of knowledge integration than simple replacement of traditional with scientific knowledge. This contribution adds to our knowledge of how various knowledge systems confront and co-exist in knowledge within individual cognitive systems.
3. Methodological Innovation in Food Fallacy Research: The study's comprehensive approach, combining quantitative measurement of fallacy prevalence with detailed analysis of sources, transmission patterns, and behavioral impacts, provides a methodological template for similar research in other cultural contexts. Two methodological innovations should benefit other populations though replication and adaptation, the stratified sampling method according to food types sold, the method of the multi-dimensional analysis of impacts.

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4. Evidence-Based Intervention Framework: Based on the study's findings, I have developed a comprehensive intervention framework that integrates cultural sensitivity with scientific rigor. As a model, this would be the first-time such framework would be used to offer evidence-based alternatives to the traditional power hierarchies where culturally-configured nutritional misperceptions are perceived as effective. The framework has been designed to explicitly integrate the trust patterns and sources of information found in this research enabling a useful tool to nutrition educators and health care practitioners in the community setting.
5. Educational Gradient Model for Food Fallacy Adherence: The study's documentation of the relationship between education levels and fallacy adherence (49.4% full adherence among those without formal education versus 21.6% among university graduates) contributes to understanding how formal education influences acceptance of traditional beliefs. The gradient model offers insights on designing focused interventions and intervening outcomes in the populations that have different educational backgrounds.
6. Intergenerational Transmission Patterns Documentation: The detailed documentation of how food fallacies are transmitted across generations (66.7% actively teaching beliefs to younger generations) contributes to understanding the persistence mechanisms of traditional beliefs. This is vital to creating interventions that can break the problematic arrays of transmission where it can retain beneficial cultural knowledge.
7. Community-Integrated Nutrition Education Model: Drawing from the study's findings about trust patterns and information sources, I have developed a community-integrated nutrition education model that positions traditional authority figures as partners rather

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than obstacles in nutrition education. This model is a paradigm shift of the top-bottom health education models to working together with the current social frameworks.

5.5 Suggestions for Further Studies

This research though offering rich details on food fallacies among the market women in Oje Market, there are still a few aspects which should be explored in order to gain more knowledge and better structure the intervention:

1. Future research in longitudinal studies: Future studies need to apply longitudinal designs to study the aspects of fallacies in food over time, especially when explored in reaction to urbanization, knowledge as well as exposure to assimilation of modern media. Reductions in time dynamics of belief change may help determine when and in what order things should be done.
2. Comparative Studies Across Different Nigerian Markets: Research should be extended to other major markets across Nigeria's diverse cultural regions to understand how food fallacies vary across ethnic groups, geographical locations, and market types. These comparative studies would make findings more generalizable and determine the region-specific needs to the interventions.
3. Impact Assessment of Food Fallacies on Nutritional Status: In future, there should be a direct assessment of the nutritional implications of food fallacy adherence by using anthropometric measures and dietary recall and biochemical marker assessment. Learning of the real nutritional repercussions of these beliefs would be a booster to the rationale to be applied in counteracting and prioritize what fallacies to be first in the counteraction.
4. Family-Level Transmission Studies: A study on the subjects of mother-child pairs would be much informative on both ways of food fallacies being transmitted through families

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and its effects on feeding habits of children and the results of such feeding. These studies may give clues to parent-centered intervention protocols.

5. Intervention Effectiveness Trials: Controlled trials evaluating the effectiveness of different intervention approaches identified in this study's recommendations are crucial. The trials are supposed to compare the culturally-integrated strategies with the conventional health education approaches to define what methods have the highest consequences of modifying beliefs and behaviors.
6. Economic Impact Assessment: Research related to the monetary consequences of food fallacies such as medical dollars, productivity loss, and economic advantages of a better diet would be valuable data to policy makers and funding agencies, contemplating mass intervention programs.
7. Religious and Spiritual Dimensions: Since the role played by the religious leaders in shaping food beliefs is very important in Nigeria, targeted research on how to integrate religious and spiritual beliefs and the fallacies of foods at different religious circumstances in Nigeria might inform the design of religious based interventions.
8. Male Perspectives and Family Dynamics: Research examining how male partners and family members influence women's adherence to food fallacies could provide insights into household decision-making dynamics and identify additional intervention targets.
9. Interventions through Technology: Research examining the possibilities of mobile health technologies, social media and other digital tools in the/delivery of nutrition education and combating food myths among the women in the market would be able to find a scalable level of intervention.

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10. Cross-Cultural Validation: Research validating the study's findings and intervention approaches in other West African contexts or among Nigerian diaspora populations could enhance understanding of the cultural specificity versus universality of these phenomena.
11. Cognitive and Psychological Mechanisms: What has not been studied much are the underlying cognitive and psychological mechanisms of food fallacy adherence as well as the influence of cognitive biases, social proof, and attachments to traditional ways of doing things emotionally.
12. Policy and Regulatory Implications: The investigation of the relationship between food fallacies and food safety regulations, policy directives set by the market, and health policies should be discussed in terms of policy implications being adapted by governments based on research findings.

These suggested areas for further study represent opportunities to build upon this research's foundations and develop increasingly sophisticated and effective approaches to addressing the challenge of food fallacies in Nigerian and similar contexts. By conducting further research, we may be in a better position to conceptualize intervention that is culturally sensitive but encourages desirable nutritional effects in vulnerable groups.

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Appendix

Questionnaire on the Influence of Food Fallacies on Dietary Choices and Consumption Patterns Amongst Oje Market Women in North East Local Government, Ibadan, Oyo State

Consent for Participants

Dear Respondents,

I am a final year student at the Department of Human Nutrition and Dietetics, Lead City University. I am currently researching the above title. This research is for academic purposes only and all information collected shall be treated with utmost confidentiality. Participating in this study does not pose any risk to you in any identifiable way. You are free to ask any question relating to this study and I implore you to give honest responses as much as possible. Thank you for your cooperation.

Do you agree to participate: Yes [ ] No [ ].

Respondent Signature: _____

Questionnaire Number: _____

Section A: Sociodemographic and Economic Characteristics

1. Age in years (as at last birthday): _____
2. Marital Status: a) Single b) Married c) Divorced d) Widowed
3. Level of Education: a) No formal education b) Primary education c) Secondary education d) Tertiary education
4. Religion: a) Christianity b) Islam c) Traditional Religion d) Others (Please specify) _____

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5. How long have you been selling in Oje Market? a) Less than a year b) 1 – 5 years c) 6 – 10 years d) Above 10 years

6. What type of food items do you sell? a) Fresh vegetables and fruits b) Grains and cereals c) Meat and fish d) Dairy products e) Processed foods f) Others (Specify) _____

Section B: Knowledge and Prevalence of Food Fallacies

7. Have you ever heard of the term "food fallacy"? a) Yes b) No c) Not sure

8. How would you define "food fallacy"? (Select all that apply)

   a) A belief about food with no scientific proof b) A cultural or traditional practice regarding food c) A religious rule about food consumption d) I don't know

9. Do you believe that food fallacies are true? a) Yes, all food beliefs are true b) Some food beliefs are true c) No, food fallacies are false d) I am not sure

10. Which of the following food beliefs have you heard before? (Select all that apply)

    a) Pregnant women should not eat snails to prevent their babies from drooling b) Eating eggs makes children steal c) Drinking pap with milk causes excessive weight gain d) Eating cold food causes illness e) Eating bush meat can cause spiritual attacks f) Bitter foods cleanse the blood g) Eating twin bananas will make a woman give birth to twins h) Drinking coconut water makes a child dull i) Others (Specify) _____

11. Which of these food fallacies do you personally believe in? (Select all that apply)

    a) Pregnant women should not eat snails to prevent their babies from drooling b) Eating eggs makes children steal c) Drinking pap with milk causes excessive weight gain d) Eating cold food causes illness e) Eating bush meat can cause spiritual

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attacks f) Bitter foods cleanse the blood g) Eating twin bananas will make a woman give birth to twins h) Drinking coconut water makes a child dull i) I do not believe in any food fallacies j) Others (Specify)

_____

12. Who told you about these food fallacies? (Select all that apply)

    a) Parents or grandparents b) Spouse or family members c) Friends or neighbors d) Religious leaders e) Community elders f) Health workers g) Social media, radio, or TV

13. How often do you hear people discussing food beliefs? a) Daily b) Weekly c) Occasionally d) Rarely e) Never

14. Do you teach your children or others about food fallacies?

    a) Yes, I strongly believe in them and pass them down b) Yes, but I tell them to take it lightly c) No, I do not teach them these food beliefs d) I try to discourage them from believing in food fallacies

15. Have you ever received formal education or health advice about food fallacies?

    a) Yes, from health professionals b) Yes, from school or formal education c) Yes, from the media (TV, radio, newspapers) d) No, I have never received such information

16. If given scientific explanations, would you be willing to change your beliefs about food fallacies? a) Yes b) No c) Not sure

17. If Yes/No, please specify why _____?

Section C: Impact of Food Fallacies on Dietary Choices and Consumption Patterns

18. Do food fallacies influence your choice of food? a) Yes b) No

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19. How often do you avoid certain foods due to food beliefs? a) Always b) Sometimes c) Rarely d) Never

20. Have food beliefs affected what you feed your children or family? a) Yes b) No

21. If yes, how has it affected them? Please specify _____

22. Do you think food fallacies affect your health and nutrition? a) Yes, negatively b) Yes, positively c) No

Section D: Source and Transmission of Food Fallacies

23. Where did you first hear about food beliefs? a) From family members b) From religious institutions c) From community elders d) From media (Radio, TV, social media) e) Others (Specify) _____

24. Do you actively teach these food beliefs to younger generations? a) Yes b) No

25. Would you be open to changing your beliefs if given scientific explanations? a) Yes b) No

26. Have you ever received nutrition education from health workers? a) Yes b) No

27. What sources do you trust the most for food and nutrition advice? a) Family and community elders b) Religious leaders c) Health professionals d) Media

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Bio- data

A. Personal Data

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3. **Nationality:** Nigerian

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- Afe Babalola University, Ado Ekiti. Ekiti State (BSc Human Nutrition and Dietetics): 2015-2019

C. Working Experiences with Dates:

Clinical Nutritionist at General Hospital Ilorin, Kwara State- 2019-2022

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The University Compliance Certification

This is to certify that this thesis by Toyosi Omowumi SAMUEL with the Matric Number: LCU/PG/005271 in the department of Human Nutrition and Dietetics, Faculty Basic Medical and Health Sciences is in full compliance with the university format and style.

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Signature Date

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