FOOD TABOOS AMONG PREGNANT WOMEN RECEIVING ANTENATAL CARE AT SECONDARY HEALTH FACILITIES IN IBADAN, OYO STATE

BY

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MATRIC.NO.: 122152

A Project in the Department Of Health Promotion and Education submitted to Faculty of Public Health,

In partial fulfilment of the requirements for the degree of

MASTER OF PUBLIC HEALTH

(HEALTH PROMOTION AND EDUCATION)

Of the

UNIVERSITY OF IBADAN

AUGUST, 2019

ABSTRACT

Food taboo is a deliberate avoidance of a food item for reasons other than simple dislike from food preferences. Pregnancy is a period of increased nutritional requirements, yet causes aversions to nutritious foods; most societies further restrict the diet of pregnant women with foodtaboos. Maternal nutrition during pregnancy has gained interest over the years due to the understanding that there is an increased physiologic, metabolic and nutritional demand associated with pregnancy; this has been regarded as an important determinant for foetal growth and development. However, in developing countries of the world, inadequate maternal nutrient intake during pregnancy is worsened by socio-cultural beliefs, myths and taboos which prohibit the consumption of certain foods by pregnant women. Lack of appropriate knowledge on culturally prescribed nutritional taboos and beliefs can have a powerful impact on the outcome of malnutrition relief efforts or prevention campaigns and interventions. This study was therefore designed to investigate food taboos among pregnant women receiving antenatal care at secondary health facilities in Ibadan, Oyo state.

This study is a descriptive cross-sectional study using validated semi-structured interviewer-administered questionnaire. A total number of 216 pregnant women who consented to the study were recruited through a multistage sampling technique. The knowledge of food taboo was assessed on a 20-point knowledge scale (KS); KS of >15 was rated good, KS of 10-15 was rated fair while KS <10 was rated poor knowledge. Also, a 12-point practice scale was used to determine food taboo practices; practice score ≤8 represented unhealthy practice while practice score >9 represented healthy practice. Sources of information on food taboos and reasons for practice of food taboos were also highlighted. Data collected were analyzed using descriptive and inferential statistics at $p<0.05$ level of significance.

The mean age of respondents was 29.5±4.6 years. Majority were of the Yoruba ethnic group (87.5%), married (97.2%), and Christians (65.7%). Respondents, (17.6%) had good knowledge, 35.2% had fair knowledge while (47.2%) had poor knowledge of food taboos. About half (50.9%) had unhealthy practice while (49.1%) had healthy practice of food taboos. There was a significant relationship between respondents' knowledge of food taboos and practice of food taboos. There were also significant relationships between age, level of education and practice of food taboo. Also ethnic background has a significant relationship with knowledge of food

taboos. Majority (47.3%) of the respondents practice food taboos for health reasons. Other reasons were cultural (38.0%), personal opinion (29.3%), religious (23.4%), foetus being too large (18.5%) while (13.7%) do not practice food taboos for any of these above reasons.

Poor knowledge and unhealthy practices of food taboos were documented among the study population. Health education on maternal nutrition among pregnant women and training of health worker can be used to address the practice of food taboos. This will help prevent poor maternal nutrition and hidden hunger in children. Also the baby will optimally develop making them less vulnerable to diseases later in life.

Keyword: Food taboo, Pregnant women, Antenatal care, Secondary health facility

Word count: 484

DEDICATION

This research work is dedicated to Sterling, my beautiful daughter who was conceived and birthed in the course of this educational journey; when the path was very rough.

ACKNOWLEDGEMENT

My foremost thanks is to God, who aligned all factors to ensure the successful execution of this academic programme. I also acknowledge the tremendous and laudable efforts of my project supervisor, Professor Ademola J. Ajuwon for his professional and insightful contributions towards this research project.

I would like to sincerely appreciate the efforts of my lecturers; Dr. O. E. Oyewole (Ag. HOD),Professor O. Oladepo, Professor Oyedunni S. Arulogun, Dr. F. O. Oshiname, Dr. M. A. Titiloye, Dr. O. Dipeolu, Dr. Y. John-Akinola, Dr. Mojisola Oluwasanu, Mrs Adeyinka T. Desmenu and Mr. John Imaledo for making this education journey worthwhile.

I cannot but say a big 'Thank You' to Miss Idowu Mogaji, my wonderful friend who stuck closer than a sister in encouraging me throughout this academic walk. And to Olamide Oyedokun whose contributions throughout this master's programme I cannot quantify, I appreciate you greatly.

Special thanks to my husband, Mr. Adekoya Isaac for his unrelenting efforts, patience and encouragement, spurring me on to greater heights. And toIsrael who understood that mum had work to do, I love you darling.

CERTIFICATION

This is to certify that this study was conducted by ADEKOYA, Adebisi Adebola in the department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria under my supervision.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

GLOSSARY OF ABBREVIATIONS

ANC	Antenatal care
FAO	Food and Agriculture Organization
WHO	World Health Organization

DEFINITION OF TERMS

Food taboos: Food taboo is a deliberate avoidance of a food item for reasons other than simple dislike from food preferences

Knowledge: Knowledge is the intellectual understanding of a particular concept or skill (Kaliyaperumal, 2004). In this study, it refers to an individual's understanding of the definition of food taboos.

Pregnant women: These are pregnant women who receive antenatal care in the three selected secondary health facilities in Ibadan, Oyo state.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

Food taboo is a deliberate avoidance of a food item for reasons other than simple dislike from food preferences. Pregnancy is a period of increased nutritional requirements, yet causes aversions to nutritious foods; most societies further restrict pregnant women's diet with foodtaboos (Placek, Madhivanan, Hagen E. H. 2017). Food taboos are as universal as food. As it turns out, some of the most fascinating food taboos dovetail with another basic human desire reproduction (National Geographic, 2015). Food taboos are known from virtually all human societies and most religions declare certain food items fit and others unfit for human consumption. Discussing on the origin of food taboos, Meyer-Rochow says "declaring certain foods taboo because they are thought to make a person sick is also the basis for the many food taboos affecting pregnant women" (Meyer-Rochow, 2009).

Dietary rules and regulations may govern particular phases of the human life cycle and may be associated with special events such as menstrual period, pregnancy, childbirth, lactation, and -- in traditional societies -- preparation for the hunt, battle, wedding, funeral, etc. On a comparative basis many food taboos seem to make no sense at all, as to what may be declared unfit by one group may be perfectly acceptable to another. Food taboos have a long history and one ought to expect a sound explanation for the existence [and persistence] of certain dietary customs in a given culture. Yet, this is a highly debated view and no single theory may explain why people employ special food taboos (Ekwochi, Chidiebere, Osuorah, Ndu, Ifediora, Asinobi and Eke, 2009). Fear of difficulties during labour and delivery, convulsions, harming the baby (such as foetal malformation), and twin pregnancy seemed to trigger many food proscriptions for the pregnant Temiar women of Ethiopia, most of which have been passed on from generation to generation. (Zerfu, Melaku, Kaleab, 2016).

The first one thousand days of life have been identified by UNICEF as most crucial in the optimum development of a child; this period being from conception till the end of the second year of the child's life. Pregnancy food aversions are theorized to protect mothers and foetuses

from pathogens or increase dietary diversity in response to resource scarcity. Tests of these hypotheses have had mixed results, perhaps because many such studies are in Westernized populations with reliable access to food and low exposure to pathogens (Placek et al, 2017). Maternal nutrition during pregnancy has gained interest over the years due to the understanding that there is an increased physiologic, metabolic and nutritional demand associated with pregnancy; this has been regarded as an important determinant for fetal growth and development. However, in developing countries of the world, inadequate maternal nutrient intake during pregnancy is worsened by socio-cultural beliefs, myths and taboos which prohibit the consumption of certain foods by pregnant women (Meyer-Rochow, 2009).

The nutritional status of the mother is distinct among other factors affecting foetal growth and development that are within our control to modify, which makes healthy eating important during pregnancy["Nutrition through the Life Cycle : From Pregnancy to the Toddler Years," 2012]. The factors that influence food choices vary, some of which include, hunger, cost of food, income, availability, education, cooking skills, time, culture, mood, knowledge, attitude and beliefs, amongst others (European Food Information Council, 2006).

The physiological changes that occur during pregnancy create a need for an increase in certain nutrients more than for others. The nutritional needs for energy, protein and micronutrients significantly increase; adequate intake of Iron, Folate, Vitamin A and Iodine are also important for the health of both women and their infants ["Nutrition through the Life Cycle : From Pregnancy to the Toddler Years," 2012]If these nutritional needs are not met, infants could suffer from developmental problems and may be at risk of heart diseases, diabetes, hypertension, and other health problems during adulthood which may be influenced by maternal nutrition during pregnancy.

A foetus in the womb of a malnourished woman is deprived of adequate nutrient for optimal growth and development and susceptible to infection, cognitive impairment, retarded growth, poor vision and adult-related predisposition to certain diseases (The Borgen Project, 2015). In developed countries of the world where food availability and accessibility is much improved, the prevalence of maternal and foetal malnutrition is at a greatly reduced level. Developing countries with lower food availability and accessibility and consequently higher malnutrition rates are compounded with a greater burden of having reduced food choices from the scarce options

available; the food taboos usually being foods that are cheap and readily available in the community.

1.2 Statement of the problem

There are so many ethnic groups in Nigeria with varying and changing nutritional traditions and taboos which indicate the need to develop a body of knowledge concerning the diverse cultural dietary practices during pregnancy as a basis for contextualized understanding and effective interventions. There is insufficient literature on the beliefs and practice of food taboos among pregnant women in Ibadan, especially those receiving ante-natal care in secondary health facilities. The practice of culturally prescribed nutritional taboos and beliefs can have a serious impact on malnutrition relief efforts or prevention campaigns and interventions.

1.3 Justification for the study

This study assessed the level of knowledge and the practices of food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan, Oyo State. The information obtained from the results of this study will be useful to:

- Health workers in antenatal clinics to pass across appropriate nutrition information to pregnant women.
- Health professionals [such as nutritionists, health educators etc] in designing and implementing interventions aimed at re-orienting community members to incorporate nutrient-dense foods regarded as taboo in the diet of pregnant women.

Conducting this study among this population will therefore serve to inform the necessary stakeholders on how to better equip the pregnant women with knowledge and practices to live a healthy life and giving birth to children who are hale and hearty when adequate diet is consumed.

1.4 Research Questions

This study provided answers to the following questions:

1. What are the sources of information on food taboos to pregnant women receiving antenatal care in secondary health facilities in Ibadan?
2. What is the level of knowledge of food taboos in pregnancy among pregnant women receiving antenatal care in secondary health facilities in Ibadan?
3. What are the food taboos practiced by pregnant women receiving antenatal care in secondary health facilities in Ibadan?
4. What are the reasons for the practice of food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan?

1.5 Broad Objective

To investigate the knowledge and practice of food taboos among pregnant women receiving antenatal care at secondary health facilities in Ibadan, Oyo State.

1.6 Specific objectives

The specific objectives were to:

1. Identify the sources of information on pregnancy-related food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan.
2. Assess the level of knowledge of food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan.
3. Determine the practice of these food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan.
4. Examine the reasons for the practice of food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan.

1.7 Research Hypotheses

The null hypotheses formulated for this study were:

$H_0$1: There is no significant association between age, ethnicity, level of education, religion, marital status, family structure, parity, occupation, monthly income and the practice of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan.

$H_0$2: There is no significant association between age, ethnicity, level of education, religion, marital status, family structure, parity, occupation, monthly income and the level of knowledge of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan.

$H_0$3: There is no significant association between level of knowledge and the practice of food taboos among pregnant women attending secondary antenatal clinics in Ibadan.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Definition of Key Concepts

Women of reproductive age have been defined by World Health Organization (WHO) as those between 15-49 years, and these constitute more than one fifth of the world's population. They are repeatedly exposed to the risk of pregnancy and child-bearing. Maternal health refers to the health of the mother during pregnancy, childbirth and the postpartum period (Abouzahr & Wardlaw, 2004). Maternal healthcare services utilization is important for early detection of mothers who are at high risk of morbidity and mortality during pregnancy (WHO, 2007). Maternal health services usually are preventive and the patients are assumed as not ill. It is therefore easy for the services to be underused (Anna van Eijk, Hanneke Bless, Frank Odhiambo, Jhon Ayisi, Ilse Blokland, Daniel Rosen, Kubaje Adazu, Laurent Slutkser and Kim Lindblade, 2000). In the developing countries, these problems are even more prevalent due to the current socioeconomic conditions and inaccessibility of health facilities (Royston & Armstrong, 1989).

Pregnancy is a critical stage of development during which maternal nutrition can strongly influence obstetric and neonatal outcomes (Godfrey, Robinson, Barker, Osmond & Cox, 1996; Kramer & Kakuma, 2003). Optimal maternal nutrition is necessary to maintain the health of a pregnant woman, proper foetal development and the prevention of some pregnancy complications (King, 2000; Kaiser & Allen, 2008) also the occurrence of diseases in adulthood (Bojar, Wdowiak, Humeniuk &Błaziak, 2008). An appropriate diet helps women's recovery from childbirth and favours breastfeeding (Arkkola, Uusitalo, Kronberg-Kippilä, Männistö, Virtanen and Kenward,2008). Dietary factors such as unhealthy feeding habits, poor quality of food, food restrictions due to superstitious beliefs have been well documented as variables associated with undesirable maternal and child health outcomes (Campbell & Campbell, 2008). Food consumption practices of pregnant women in developing countries like Nigeria are highly influenced by seasonal food variations, physical activities, family food distribution (Maduforo, 2010). Other factors that may influence dietary intake are tradition (Willamson, 2006).

Several studies conducted in Nigeria (Sholeye, 2011; Oluleke, Ogunwale, Arulogun, and Adelekan, 2016) have noted that the geography of the land, the agricultural practices by the

people, food marketing practices, food taboos and avoidance have been reported among pregnant women in many communities, with the consequent inadequate nutrient intake. For instance, a study carried out in Imo State, Nigeria documented that 15% of the pregnant women studied held on to superstitious traditional food taboos which in turn influenced their dietary practices (Maduforo, 2010).

The problem of malnutrition among pregnant women poses a great challenge to the health of pregnant women (Ojofeitimi, Ogunjuyigbe, Sanusi, Orji, Alonto and Isasu, 2008; NPC, 2013). Malnutrition does not just affect the pregnant women only but also has a devastating effect on the foetus. It is ranked as one of the major causes of maternal mortality and it is a significant determinant of a successful pregnancy and a healthy, well-nourished baby (Maduforo, 2010). Most congenital cardiovascular diseases among children and adults originate at the embryonic developmental stages where essential nutrients required for healthy foetus development are deficient or not transferred at all through the placenta of the woman to the unborn baby due to consumption of poor quality diet (Gluckman, Hanson, Pinal, 2005). On the other hand, excessive consumption of food items such as carbohydrates, fatty and protein diet has resulted in overweight and obesity among some pregnant women. Excessive weight in pregnancy is associated with many disease conditions such as hypertension in pregnancy, Diabetes Mellitus, giving birth to big babies (macrosomic babies), who may later in life have health challenges, including cardiovascular diseases. These medical conditions may continue to the post-partum period (Hasunen, Kalavaien, Keinonen, Lagstrom, Lyytikainen, Nurttila 2004).

Under-nutrition is a serious global health problem which has not yet been sufficiently addressed. Globally, approximately 795 million people are undernourished, mostly in Low and Middle-Income Countries (Food and Agricultural Organization, 2015). Nutrition is most critical during pregnancy because poor nutrition puts both mother and baby at risk. Poorly nourished expectant mothers are at a higher risk of having a preterm birth, and giving birth to babies with low birth-weight and Intra Uterine Growth Restrictions [IUGR]; while also facing multiple threats to their own health and survival (Barker, Mouchel, Jenkins, 2006; Black, Victora, Walker, Bhutta, Christian and De Onis, 2013). Babies born underweight, pre-term or with IUGR have increased risk of neonatal death. A number of those who survive these conditions may develop into stunted adults who will, in turn, give birth to stunted children, representing a vicious cycle of nutritional

problems (Black *et al*., 2013). Nearly half (45%) of global deaths among children under five are attributed to under-nutrition, amounting to 3 million deaths each year (UNICEF, 2016). In Kenya, 35% of children under five have been found to be stunted with higher levels of stunting in rural areas (Kenya National Bureau of Statistics, 2010). Furthermore, 56% of infant deaths in Kenya occur during the first month of life and 5% of children do not survive to the age of 5 years (KNBS, 2014).

The United Nation Children's Fund (UNICEF) Food-Care Health conceptual framework lists cultural norms, taboos and beliefs as one factor that may cause malnutrition (UNICEF, 2008). Meyer-Rochow (Saj, 2006) for instance, established that food items within a given ecological zone may be considered inedible due to "nutritional taboos." Food beliefs and taboos are a global phenomenon that are intended to have a positive effect to the practicing community including: conservation of a scarce or sacred resource (Quiroz & Van, 2015), maintenance of social norms, morals, group cohesion and identity (Benabou & Tirole, 2011) and protection of human health (Golden &Comaroff, 2015; Towns & Van, 2016)). Food taboos and restrictions are particularly strictly observed during pregnancy as pregnant women are considered to be more vulnerable and hence what they eat must be regulated to protect the foetus and reduce the occurrence of complicated labour and delivery (Aikins, 2014; Ekwochi, Chidiebere, Osuorah, Ndu, Asinobi and Eke (2016);Zepro N.B, 2012)). Other studies, however, indicate that failure to make use of available food resources in a given ecological zone due to taboos and beliefs is one of the major causes of malnutrition (Ogbeide, 1974). This indicates that more research needs to be carried out on this crucial area.

In many communities, pregnant women are restricted or forbidden from eating some foods that are common sources of essential nutrients such as snails, snakes, bush meats, eggs and beans due to beliefs that some of the foods can have negative effects on them and their unborn children (Maduforo, 2010). Several factors have been associated with adherence to food taboos including teenage pregnancy, lack of formal education, low household income, low socio-economic status and a low body mass index (Oni & Tukur, 2012). Poor socio-economic condition and food insecurity could make pregnant women refrain from some nutrient dense foods including protein-rich meat group and make them favour starchy foods more than other food groups (Sholeye, 2011).

Malnutrition is ranked as one of the major causes of maternal mortality and it is a major determinant of a successful pregnancy and a healthy well-nourished baby (Sholeye, Badejo, and Jeminusi, 2014; Maduforo, 2010). Developing nations account for 99% of all maternal deaths in the world (World Health Organization, 2015). Nigeria has one of the highest maternal death rates in the world with the current rate of 576 deaths per 100,000 live births (National Population Commission, 2013). These staggering statistics show that it would be worthwhile that the major avoidable causes of maternal mortality and adverse pregnancy outcome can be eliminated by looking into the feeding practices of women due to their traditional beliefs and taboos, and also to determine its effect on their nutritional status.

2.1 Meaning of Food Taboos

According to The Advanced English Dictionary and Thesaurus, a Taboo is 'a prejudice; an inhibition or ban resulting from social custom or emotional aversion'. It was further defined in general terms 'as a belief that forbids association of a group of people with other people, places or practices' (D'Adamo and Richard,1994).

Food taboo is a deliberate avoidance of a food item for reasons other than simple dislike from food preferences. Many human societies have a culture of food taboos and many times, pregnant women are the targets. Pregnancy is a period of increased nutritional requirements, yet causes aversions to nutritious foods; most societies further restrict pregnant women's diet with foodtaboos(Placek et al, 2017). As a result of the well-entrenched traditional food taboos and socio-cultural beliefs relating to dietary intake during pregnancy, many pregnant women have misinformation about the harmful effects of these taboo foods (Kavle, Mehanna, Saleh *et al*., 2014).

2.2 Knowledge of Food Taboos

All around the world, there are all kinds of rules about what pregnant women can and cannot eat (National Geographic, 2015). Declaring certain foods taboo because they are thought to make a person sick is also the basis for the many food taboos affecting pregnant women," according to ethnobiologist Victor Benno Meyer-Rochow of Finland, who studies folk wisdom. Some of these taboos are myths and some of them have a modicum of grounding in

science and many of them are still practiced today. When adhered to, they help make a group feel connected, says Meyer-Rochow (Saj,2006)

In Low and Middle Income Countries, socio-economic factors (especially consumer income) have been associated with inadequate nutritional status and household food security (Gewa, 2012) However, a study undertaken in Ethiopia established that some of the highest prevalence rates of malnutrition were found in the food-surplus regions of the country, indicating that food availability is only one component of food security and that it does not necessarily ensure adequate nutritional status (Kaluski *et al*, 2002). Similarly in Kenya, although 89% of land is arid and semi-arid (Kenya Vision, 2015) even the arable regions still experience nutritional deficiencies. Uasin Gishu County for instance, where this study was conducted, has climatic conditions and soil type which are generally suitable for livestock keeping and food crop production with an average rural land holding of 5 hectares, hence it is commonly known as the country's food basket (Uasin Gishu, 2013). However, the nutritional status of Uasin Gishu County is worse than the national norm. Some 11.5% of the Uasin Gishu population is underweight compared to the national level (11.0%) while 31.2% of children are stunted compared to 26.0% nationally (KNBS, 2014).

2.3 Practice of food taboos during pregnancy

Table 2.3:**Practice of food taboos during pregnancy**

Author	Setting of study	Study population	Key findings
Santos-Torres, Vasquez-Garibay, 2003	Sub-Saharan Africa	Pregnant and lactating women	There are harmful effects of restriction of the mother's diet on the newborn
Pérez and García, 2013	'Fulla' ethnic group, The Gambia	Women of reproductive age	Women are usually forbidden from eating several types of food rich in carbohydrate, animal proteins, and micronutrients during pregnancy
Nag and Moni, 1994	India	Pregnant and lactating women	Conventionally 'hot' food items e.g. pawpaw are avoided during pregnancy as they are believed to cause abortion. Similarly 'cold' foods are avoided during lactation as it might affect the quality and quantity of milk production
Patil and Mitta (2010)	South India	Pregnant women	There was no significant difference in the misconception of avoiding certain fruits and vegetables in pregnancy between literates and illiterates
Zepro (2012)	Shashemene District, Ethiopia	Pregnant women	Half (49.8%) of the respondents avoid one or more food items during pregnancy.Belief for food restriction were abnormality of the fetal head, makes fatty baby and difficult delivery, fear of abortion, evil eye, fetal abnormality
Hassan, Elawad and Ahmed(2018)	Khartoum State, Sudan	Pregnant women	The study showed the types of food desisted from by pregnant women: the majority of the pregnant women (65.5%) avoided eating red meat, while (29%) of them avoided eating eggs, (23.4%) avoided eating white meat and (41.5%) avoided drinking milk
Getnet, Aycheh& Tessema, (2018)	Amhara Regional State, Ethiopia	Pregnant women	Pregnant women whose age is 20-24 years were 2.97 timesmore likely to develop food taboos compared to the age group 15 to 19 years. Previous ANC attendance of study participant is significantly associated with food taboo
Ekwochi, Chidiebere, Osuorah, Ndu, Asinobiand Eke(2016).	South-East Nigeria	Pregnant women	It was inferred by the authors of the study that most women who avoided these foodswere coerced into such practice and if given the choice will eat such foods in pregnancy
Oluleke *et al*, (2016) and Ogunwale, (2015)	South-West Nigeria	Pregnant women	They established that pregnant women are restricted from eating certain food items such as liver, intestines, kidney, milk, sweet potatoes, sugar, salt, eggs and bananas because these foods are believed to cause obstructed labour.

2.4 Reasons for practice of food taboos

According to the Ministry of Health (MoH) in Ethiopia, pregnant women avoid specific food items due to several reasons: some pregnant women avoid as result of a strong dislike (aversion), other women avoid on medical grounds & most due to cultural beliefs or impositions. In this study, milk, eggs and goat meat are the major food items prohibited during pregnancy (Ministry of Planning and Economic Development, Food and Nutrition unit, Ethiopia, Addis Ababa, 1992).

Similarly, Towns (2016) also established how Beninese and Ghanaian women consumed medicinal plants to strengthen women during pregnancy and that delivery would be facilitated through consuming these plants. On the other hand, energy-giving starch-rich items were regarded as good for body among rural Nigerian mothers (Ebomoyi, 1988). Some foods are not restricted by culture but are believed to cause discomfort, such as heartburns, nausea or vomiting, a condition the respondents referred to as "being rejected by the foetus". Commonly cited foods in this category include fermented porridge, fermented milk, cabbages, kale, beans and *githeri* (maize mixed with beans). Consumption of traditional vegetables and fresh milk is believed to relieve heartburns, nausea and vomiting, and is encouraged. Food cravings or rejection due to physiological changes that resulted in overconsumption or under-consumption of nutritious or non-nutritious food has previously been established by Aikins (2014) among pregnant women in Ghana.

Some food stuffs were also judged to be more or less appropriate for certain classes of individuals in the society. Attributes of "male" versus "female" foods, their symbolism, and how they affect actual consumption of food were also established in the study. For instance, the Kalenjin men reserve some animal organs such as the tongue, heart, male reproductive organs and udder for themselves as delicacies; these foods are taboo for women and children. On the other hand, liver is reserved for any pregnant woman in the family. Subdivision of animal body parts/meat according to age and gender is a common cultural practice among the pastoralist communities in Kenya, including among the Kalenjin. Similarly, the Luhya community of Kenya restricts consumption of eggs in order to spare chickens because chicken meat is a delicacy reserved for

men and guests [Oniang & Komokoi, 1999]. Such a practice can result in a shortage of adequate supplies of essential nutrients, especially among vulnerable groups.

In this study, herbal medicine, milk, animal blood and traditional beer were commonly used in conducting cleansing rituals when pregnant women accidentally consume restricted food stuffs. Herbal medicine as explained by an herbalist in this case is consumed by the pregnant women whereas traditional beer, animal blood and milk were moth sprayed at the grave yard as a reconciliatory negotiation between the pregnant woman and the ancestors. As a result, these herbal trees are domesticated in the gardens because they are getting diminished in the forests due to deforestation. The role of taboos as a protection of ritual plant species was also established by Quiroz in Benin and Gabon (Quiroz & Van, 2015).

According to Christian Relief and Development Association (1991), it was reported that more frequent taboo was related to the simultaneous consumption of milk and fruits, such as mango, orange, pineapple, and nuts. They also considered eating eggs and fruits together harmful, as well as a combination of meat with fish. They mentioned that "combinations are harmful", "combination kills", and "mixing together causes indigestion and vomiting." These restrictions were more frequent during the lactation period than during pregnancy. Food taboos adversely affect the daily consumption of protein, energy, and some nutrients during the first month of nursing.

It was also revealed by Christian Relief and Development Association (1991), that in most traditional society, food taboos are specifically directed toward women. The best and most nourishing portions of the food are served to the men. The nutritional deficiencies of most women are high particularly among pregnant and lactating women. Pregnant women are restricted from certain food staffs. For example, in the South South-Western and central part of Ethiopia, pregnant women are forbidden to take all foods which are white in color such as milk products, fatty meat, porridge and potato. Such foods are believed to be plastered on the body of the newly born baby. It is also assumed that the newly born baby and mother will have a bad smell if a pregnant woman eats vegetables. Green pepper is also prohibited with the assumption that a new born baby will become hairless. In the northern part of Ethiopia high carbohydrate and fat foods

are forbidden for pregnant women with the assumption that it will bring about easier labor and smaller babies.

In a study by Scholl and Hedger (1993) on Low zinc intake during pregnancy: its association with preterm labour, in Sudan, showed that pregnant women often have restricted food intake mainly due to morning sickness which is prevented and treated by eating little and limited items of food: and due also to the belief that a large fetus causing obstructed labor will result from eating unrestricted amount of food.

According to Hassan, Elawad and Ahmed(2018), in a study on ”Food Taboos among Pregnant Women in Health Centers ,Khartoum State, Sudan” it was reported that a large group of pregnant women refused to eat certain foods during pregnancyfor personal reasons such as (46.2%) from whom because craving, (17.2%) from whom because nausea, this result is similar to what Comoro, Nsimba, Warsame and Tomson (2003) in a study on “Local Understanding, Perceptions and Reported Practices of Mothers/guardians and Health Workers on Childhood Malaria in a Tanzanian District in Tanzania. They found that, (32.2%) from whom because craving and (20%) from whom because nausea. A considerable groupof pregnant women (35.9%) stated that the reason for not eating certain types of food during pregnancy was due to social norms which prohibit the consumption of such types of food during pregnancy and these are related to social taboos in the community. This result is in line with a study carried out by Counihan and Penny (2003) who concluded that (41.1%) of the pregnant women related the reason for food refraining to the fact that they were socially prohibited.

Also due to community reasons, the majority of the pregnant women (67.3%) avoided eating red meet such as camel meat during pregnancy because it causes difficulties during delivery and (15.4%) of them avoided eating eggs during pregnancy because they cause disease to mothers (Hassan, Elawad and Ahmed, 2018). These results were similar to what was found by a study carried out by Department of Health and Children (2003) in Indonesia. They revealed that food taboos in the community (80%) of the pregnant women desisted from eating certain foods like red meat, fishes and other food from rivers because they lead to difficulties during delivery and they cause the fetus to be upside down in the womb, while (22%) for them did not eat eggs during pregnancy because they cause diseases to mothers. The study also showed that (36%) of the

pregnant women preferred to eat certain types of food such as milk and fruits during pregnancy because they strengthen the mother's immune system and protect mothers from diseases. This result agrees with that of Department of Health and Children, Sudan. Health Promotion Unit(1999) concluded that (55.3%) of the pregnant women preferred to eat certain types of food such as milk, milk products and fruits during pregnancy because they strengthen the mothers' and fetus's immune system and protecting mothers from the disease.

The study also showed the majority (64.1%) of pregnant women refused to eat certain foods during pregnancy for personal reasons (Hassan, Elawad and Ahmed, 2018). This result is similar to what Christian, Shipra, Andrew, Subarna, Steven and Sharada (2006) in Tanzania revealed. They found that, (75.8%) of the pregnant women refused to eat certain foods during pregnancy for personal reasons.

More so, in Sokoto State, Nigeria, the untrained traditional midwifes advice pregnant women to avoid sugar and honey as they cause prolonged painful labour. They also advise pregnant ladies not to take local soda which is supposed to make the fetus slim.

2.5 Sources of information on food taboos

The influence of information received from people about certain habits cannot be underestimated. Many people are involved in different acts as a result of information they receive from people they give respect to. Pregnant women who both practice and refuse to practice food taboos receive information from a particular source which have therefore formed a backbone for their choice of food during pregnancy.

According to Hassan, Elawad and Ahmed(2018), in a study on "Food Taboos among Pregnant Women in Health Centers ,Khartoum State, Sudan" revealed that the major source of information to pregnant women is their mothers (50%), followed by their mother-in-law and other pregnant women (21.2%) each. Doctors and nutrition counselors are the least sources of information (7.7%).

2.6 Consequences of practice of food taboos

According to the findings of National Committee on Traditional Practices of Ethiopia (2003), it was shown that food taboos and restriction of pregnant women from consuming certain kinds of food which is usually rich in the required nutrients leads to the low nutritional status among most women and put them at high risk of material death. Low body weight, iron deficiency and anemia are one of the main causes of death in cases of hemorrhage during labor, and it is common among women in developing countries. For instance in Ethiopia, the mean height of women is only 156cm, indicating severe past malnutrition, and puts women at high risk in delivery, and 30% of non-pregnant women have a body mass index less than 18.5, which indicates serious chronic energy deficiency.

Also, in a study on pregnant Yoruba and Hausa women in Lagos, it was discovered that Nutrition Anaemia was higher among the Hausa women than the Yoruba (56.7% to 72.9%). Anthropometric measurement of the babies after birth showed the incidence of low birth weight for Yoruba babies as 14.8% while the value for the Hausa babies was 22.9%. (Abidoye, Akinpelumi 2010). About 75% of the Hausas identified their mothers as instrumental to these taboos and beliefs and practiced them, indicating that the practice of food taboos by pregnant women can lead to inadequate intake of cheap, available and nourishing sources of nutrients which may affect health status of both mother and child.

2.7 Theoretical framework

There are so many commonly used theoretical models in health promotion. These include but not limited to; the health belief model, trans-theoretical model, social cognitive theory, theory of reasoned actions, theory of planned behaviour and the PRECEDE-PROCEED model (Glanz, Rimer and Lewis, 2002). Each of these models identifies behavioural influences and factors relevant to issue targeted by health promotion programme. The *PRECEDE-PROCEED* is a planning model developed by Green, Kreuter, and associates. It provides a road map for designing health education and health promotion programs. Because the model views health behavior as influenced by both individual and environmental forces, it has two distinct parts: an “educational diagnosis” (PRECEDE) and an “ecological diagnosis” (PROCEED). The PRECEDE acronym

stands for Predisposing, Reinforcing, Enabling Constructs in Educational/ Environmental Diagnosis and Evaluation and this is the aspect of the model that were employed in this study.

The main constructs of the PRECEDE model are:

- Predisposing factors,
- Reinforcing factors and
- Enabling factors(Glanz *et al*, 2002).

Predisposing factors: They are factors which motivate or provide a reason for behaviour; they include knowledge, attitudes, cultural beliefs, perceived needs and abilities and readiness to change.

Reinforcing factors: These are factors which come into play after behaviour has been initiated. They encourage repetition or persistence of behaviours by providing continuing rewards or incentives e.g. Social support, praise, reassurance (from family, peers, colleagues, health care workers, law enforcement, and the media) and symptom relief might all be considered reinforcing factors.

Enabling factors: These are factors that enable persons to act on their predispositions; these factors include available resources, accessibility, money, time, supportive policies, assistance, and services.

Application of the model

Using the various constructs of the model, it was applied to the current research as follows:

1. Predisposing factors [cognitive/affective determinants]:
   - Knowledge of food taboos
   - Culturally ingrained beliefs in food taboos
   - Perception: possible consequences of ignoring or non-adherence to the pregnancy-related food taboos.
2. Enabling factors [resources and skills needed]:
   - Supply: the foods regarded as taboo are lesser in demand and usually abundant in supply.

- Cost: relatively cheap because consumption of such foods is not popular.
- Skills: most of these foods regarded as taboo do not require special skills for preparation when compared to regular foods

3. Reinforcing factors [social influences, feedback mechanism]:
   - Promotion of consumption of foods regarded as taboo by health workers in antenatal clinics.
   - Consumption of taboo foods by neighbours
   - Purchase of taboo foods for the pregnant woman by the spouse.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

This study utilized a descriptive cross-sectional design using a semi-structured, interviewer-administered questionnaire to assess the sources of information,knowledge, practice of some taboos and reasons for practice among pregnant women receiving antenatal care in secondary health facilities in Ibadan, Oyo State.

3.2 The study area

Ibadan is the third largest city in Nigeria by population (after Lagos and Kano) with a population of 3,306,795 (National Population Commission, 2006), and the largest by geographical area, covering an area of 985.13 km². It is located in the South-Western region of Nigeria and populated by the Yorubas; one of the three main ethnic groups in Nigeria. Its population is over three million people. Ibadan is made up of 11 Local government areas, 6 of which have at least one secondary health facility (www.oyostate.gov.ng, 2018).

It is located in South-Western Nigeria, 128 km inland Northeast of Lagos and 530 km Southwest of Abuja, the federal capital and is a prominent transit point between the coastal region and the areas to the north. Ibadan was the centre of administration of the old Western Region, Nigeria in the days of the British colonial rule, and parts of the city's ancient protective walls still stand to this day. The principal inhabitants of the city are the Yoruba-speaking people and minority of other ethnic groups. They are mainly traders and artisans (www.oyostate.gov.ng, 2018).

The three secondary health facilities used for this study are Ring-Road State Hospital, Adeoyo, Ibadan; Jericho Nursing Home, Jericho, Ibadan and Jericho Specialist Hospital, Jericho, Ibadan. These three health facilities offer antenatal care services and also ensure the health of the mother and child before, during and after the delivery

Ring-Road State Hospital is situated at Fodacis/Adeoyo, Ibadan North-West Local Government Area of Ibadan; a residential area predominantly populated by middle to low income earners. The hospital offers general health services including maternal and child health care.

Jericho Nursing Home is located in an enclave along Jericho/Idi-ishin, Ibadan North-West Local Government Area of Ibadan. It was originally meant to cater only for the staff/wives of staff of the Oyo State government, but over the years, their services have expanded to be inclusive of all. Its major focus is maternal and child health care, although general health services are also offered. Jericho Specialist Hospital is situated along Magazine Way, Jericho, Ibadan South-West Local Government Area of Ibadan. It caters for the health needs of people living in that area, including Dugbe, Eleyele, NIHORT, etc. Although situated at a close proximity with Jericho Nursing Home, the former enjoys a better patronage than the latter. This may be as a result of its more centralized location. It offers both general health and maternal health services.

3.3 Study population

The target population for this study was pregnant women receiving antenatal care in secondary health facilities in Ibadan, Oyo State.

3.4 Inclusion criteria

Pregnant women receiving antenatal care in the secondary health facilities, who gave consent and were present at the hospital on the day of the study was included regardless of their parity, number of visits or marital status.

3.5 Exclusion criteria

- Pregnant women who were not willing to participate in the study were included
- Pregnant women with gynecological problem(s)
- Women too ill to respond

3.6 Sample Size Determination

The sample size for this study was determined using the formula for single population proportion.

$N = \frac{Z^2 pq}{d^2}$ (Devane, Begley and Lark. 2004)

Where n = Sample size

Z = z value corresponding to a 95% level of significance = 1.96

P = proportion of nutritional practices and taboos among pregnant women attending antenatal care at General Hospital in Kano, Northwest Nigeria

= 15% = 0.15 (Ugwa, 2016)

q = [1-p] = [1-15%] = 0.85

d = absolute precision [5%]

None response rate = 10%

Therefore, from the above sample size is

$$n = \frac{1.96^2 \times 0.85 \times 0.15}{0.05^2}$$

n = 196

Assuming a none-response rate of 10%, which is approximately 20,

Then n = 196 + 20 = 216

Therefore, two hundred and sixteen [216] study participants were proposed for recruitment into the study

3.7 Sampling Technique

The respondents were selected using multiple stage (3 stages) sampling technique.

Stage 1: Three secondary health facilities were randomly selected from the in Ibadan which offers antenatal care services. They were:

- Ring-Road State Hospital, Adeoyo, Ibadan
- Jericho Nursing Home, Jericho, Ibadan
- Jericho Specialist Hospital, Jericho, Ibadan

Stage 2: Selection of number of respondents in each Secondary Health Facility

A proportionate sampling technique was adopted to calculate the number of respondents per secondary health facility

$$\frac{\text{Number of pregnant women registered in each secondary health facility}}{\text{Total number of pregnant women registered in all three secondary health facilities}} \times \text{Sample Size [n]}$$

Table 3.1 Population of registered pregnant women and respondents by Secondary health facilities in Ibadan

Names of secondary health facility	**Total number of Pregnant woman registered**	**Total number of respondents to be selected**	**% selected**
Ring-Road State Hospital, Adeoyo, Ibadan	145	88	40.7
Jericho Nursing Home, Jericho, Ibadan	90	55	25.5
Jericho Specialist Hospital, Jericho, Ibadan	120	73	33.8
Total	355	216	100.0

Source: Registers for pregnant women at the Health facilities as at 14th day of December, 2018

Stage 3: Convenience sampling was used to select participants in each health facility into the study. Every pregnant woman present will have an equal chance of being selected.Respondents who consented to be interviewed after necessary information had been given were recruited for the study.

3.8 Instrument for data collection

A 50-item semi-structured questionnaire was used for data collection (See Appendix 1). The questionnaire was interviewer-administered. The questionnaire was developed based on the research objectives and review of literatures on the topic. The instrument was designed in English Language and translated to Yoruba Language, which is the main language of communication in Ibadan, the study location. The questionnaire was structured and divided into sections based on the objectives of the study as follows:

Section A: Socio-demographic characteristics

Section B: Sources of information on food taboos

Section C: Knowledge of food taboos

Section D: Practice of food taboos

Section E: Reasons for practice of food taboos

3.9 Validity of the instrument

Measures were taken to ensure the face and content validity of the instrument. Relevant literature was reviewed by the researcher after which the supervisor reviewed and suggested corrections. The instrument wasassessed among experts in the field of human nutrition and dietetics, Faculty of Public Health, College of Medicine, University of Ibadan to ensure face and content validity who made relevant corrections and effected before producing the final draft for pre-test.

3.10 Reliability of the instrument

In establishing the reliability of the instrument, the researcher used the pre-test technique. The reliability of the draft instrument was determined by pre-testing among twenty (24)pregnant women in a secondary health facility in Osogbo; a similar population group where copies of the questionnaire were given to them to fill.After the pre-test, the data gathered was checked for errors and completeness. Each questionnaire was numbered for easy recall and a coding guide was prepared to facilitate entry of the data into the computer software. The data were then subjected to further analysis using Cronbach's correlation co-efficient for the reliability.The reliability co-efficientobtained from the pre-test was 0.852.

Following the pretest, the instrument was revised and ambiguous questions were either removed or reconstructed while some were added.

3.11 Data Collection Procedure

Data was collected by the researcher with the assistance of two research assistantswho helped in the administration of the questionnaire. The research assistants were trained by the researcher on the ethical conduct of research, administration of questionnaire and the content of the instrument.Each respondent was courteously approached and the necessary information about the study was given to them in the language they understand best. Each respondent was given a copy

of the questionnaire afterwards and asked to ask for clarification if there is any part that needs explanation and those who needed assistance in filling the questionnaire were assisted.

3.12 Data Management and Analysis

The questionnairewas reviewed to ensure consistency and completeness before leaving the field. Serial numbers were written on the copies of the questionnaire for easy entry and recall. A coding guide was developed along with the data collection tool in order to facilitate its analysis. The cleaning and coding of data for analysis was done. Using the coding guide, the data collected were entered into the computer using SPSS software. The analysis descriptive statistics such as mean, standard deviation, frequency and inferential statistics such as Chi-square were obtained. The data were presented in tables and charts.

To identify major sources of information on food taboos, 16-item questions was used to identify the major source of information available to pregnant women receiving antenatal care at secondary health facilities in Ibadan. Respondents' knowledge of food taboo was measured on a 20-point knowledge scale. Knowledge Score (KS) of <10 was rated as poor knowledge, KS of 10-15was considered fair and KS >15was rated as good knowledge. A 12–point scale was used for practices of food taboos, where a score ≤8 represented unhealthy practices and a score >8 represented healthy practices of food taboos.

A 6-item statement were used to establish the reasons why pregnant women practice food taboos.

Chi square test statistic was used to measure the association between socio-demographics and knowledge of food taboos, practice of food taboos and also the relationship between level of knowledge and practice of food taboos.

3.13 Ethical Considerations

Ethical approval wasobtained from Oyo State Research Ethics Review Committee prior the commencement of the study (See Appendix 3) to ensure the proposed study meets all the principles and National guidelines in research involving human participants. Permission was also sought from each health facility before conducting the study.

Informed Consent/Confidentiality: A valid informed consent was obtained from the study participants through appended signature on the informed consent form after adequate provision of

information. All identifiers were removed from the questionnaire and confidentiality was ensured through protection of data collected from participants.

Voluntariness: Participants was accorded the right to or not to participate in the study without any consequence. It was made clear to participants that they are under no obligation to participate in the study.

Beneficence: There was no direct benefit from this study but the findings would be of great value in the design of interventions at promoting the nutritional knowledge and consumption pattern of pregnant women.

Non-maleficence: The study did not involve any risk as it does not involve utilization of any invasive material. No harm came to respondents who chose to participate in the study. Only the time needed to respond to the questionnaire was required of the participants.

Dissemination of findings: To ensure study participants are informed about the information gathered, the result of the findings will be published in journals.

Translation of protocol to the local language: Participants' level of education vary, therefore the questionnaire was translated to Yoruba language by a linguistic expert that is vast in both languages for easy communication with respondents who are illiterates and semi-illiterates. The Yoruba version of the instrument was back-translated into English by another language expert to ascertain the accuracy of the translation.

3.14 Limitation of the study

The study solely relied on the responses from respondents; as such, the participants were expected to report their knowledge and practices. However, there was no way to ascertain whether their claims were true or not. The researcher therefore proceeded to inform the respondents that they could express their opinion since there areno right or wrong answers. They were also assured that their responses will be kept confidential.

CHAPTER FOUR

1.0 RESULTS

4.1.1 Socio-demographic characteristics of the respondents

The socio-demographic characteristics of the respondents are presented in Table 4.1. The ages of the respondents ranged between 18 and 41 years with mean age of 29.5±4.6 years. Most respondents (69.4%) were between the age group 26-35 years while those within age group 36-41 years were the least 10.6%. Majority (78.2%) of the respondents had tertiary education, followed by secondary school education 19.4% while only 1.4% and 1% had primary school education and no formal education, respectively. Majority (65.7%) of the respondents were of the Christian faith while the rest (34.3%) were Muslims.

Majority (87.5%) were of the Yoruba ethnic group while Igbo (7.4%), Hausa (0.5%) and others (4.6%) tribes were represented. Almost all (97.2%) the respondents were married while only (2.3%) and (0.5%) were single and divorced respectively. Majority (85.6%) of the respondents had a monogamy type of family structure while (6.5%) of the respondents were single parent. Majority (43.1%)of the respondents had never had any child before while five is the highest parity reported by (10.9%) of the respondents.

Majority (40.7%) of the respondents were traders while the least (2.8%) occupation reported was being self-employed. However, (6.0%) of the respondents were unemployed. The mean monthly income of the respondents was₦34,652.80±23,949.29 with minimum and maximum income of ₦2,000 and ₦150,000 respectively.

Table 4.1 **Socio-demographic information of respondents** (N=216)

Socio-demographic variables	**Responses**	**No**	**%**
Age	18-25	43	20
	26-32	123	56.9
	33-41	50	23.1
Religion	Christian	142	65.7
	Muslim	74	34.3
Ethnic Group	Yoruba	189	87.5
	Igbo	16	7.4
	Hausa	1	0.5
	Others*	10	4.6
Marital Status	Single	5	2.3
	Married	210	97.2
	Divorced	1	0.5
Family type	Monogamy	185	85.6
	Polygamy	17	7.9
	Single parent	14	6.5
Number of children	0	93	43.1
	1	65	30.1
	2	35	16.2
	3	16	7.4
	4	5	2.3
	5	2	0.9

Other*= Edo, Delta, Tiv, Igbira, Idoma

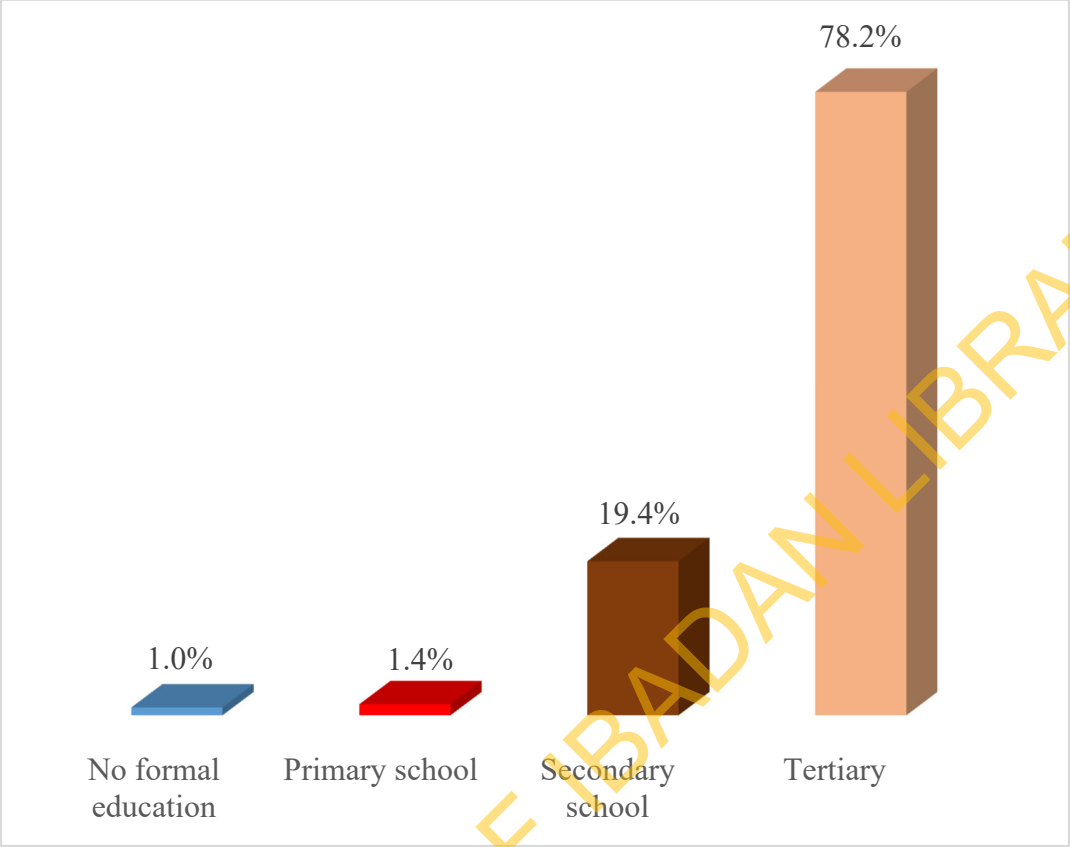

Figure 4.1: Respondents' level of education

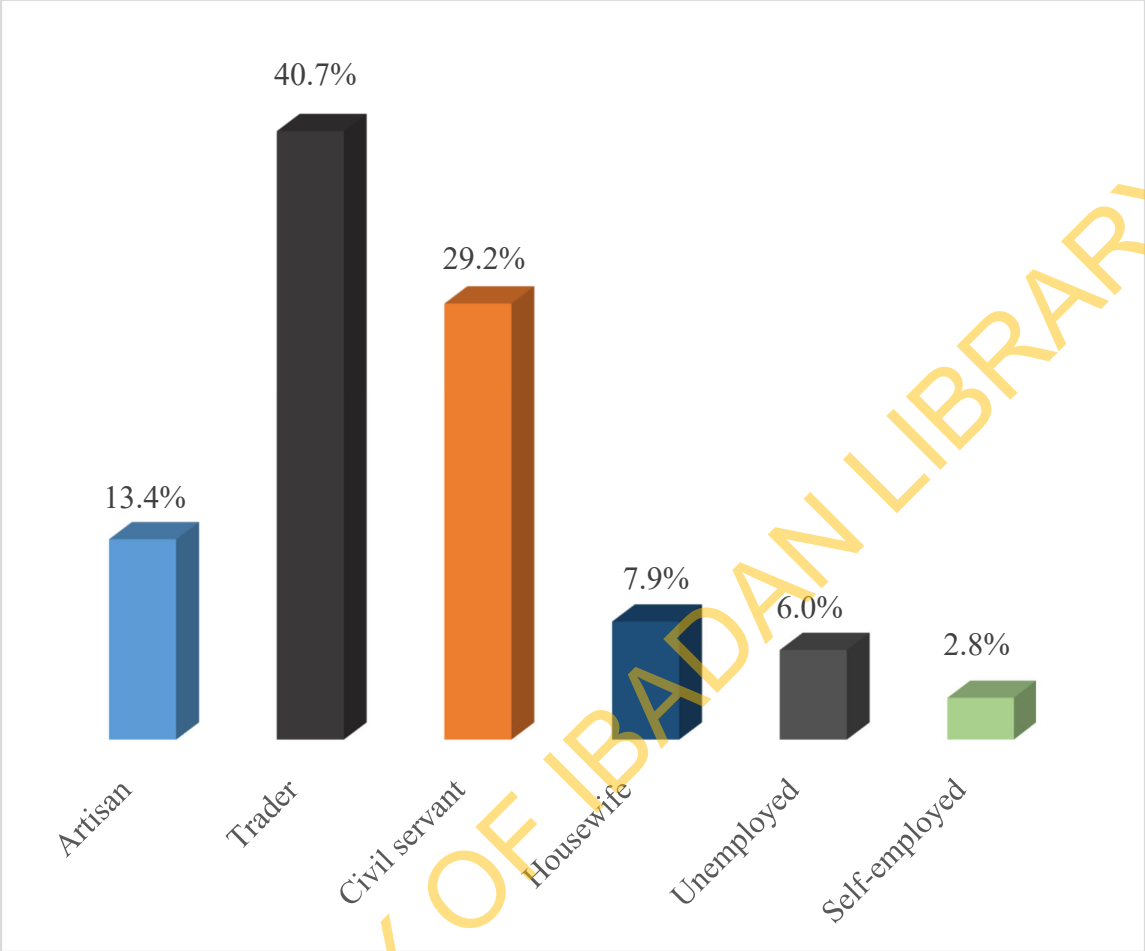

Figure 4.2: Respondents' occupations

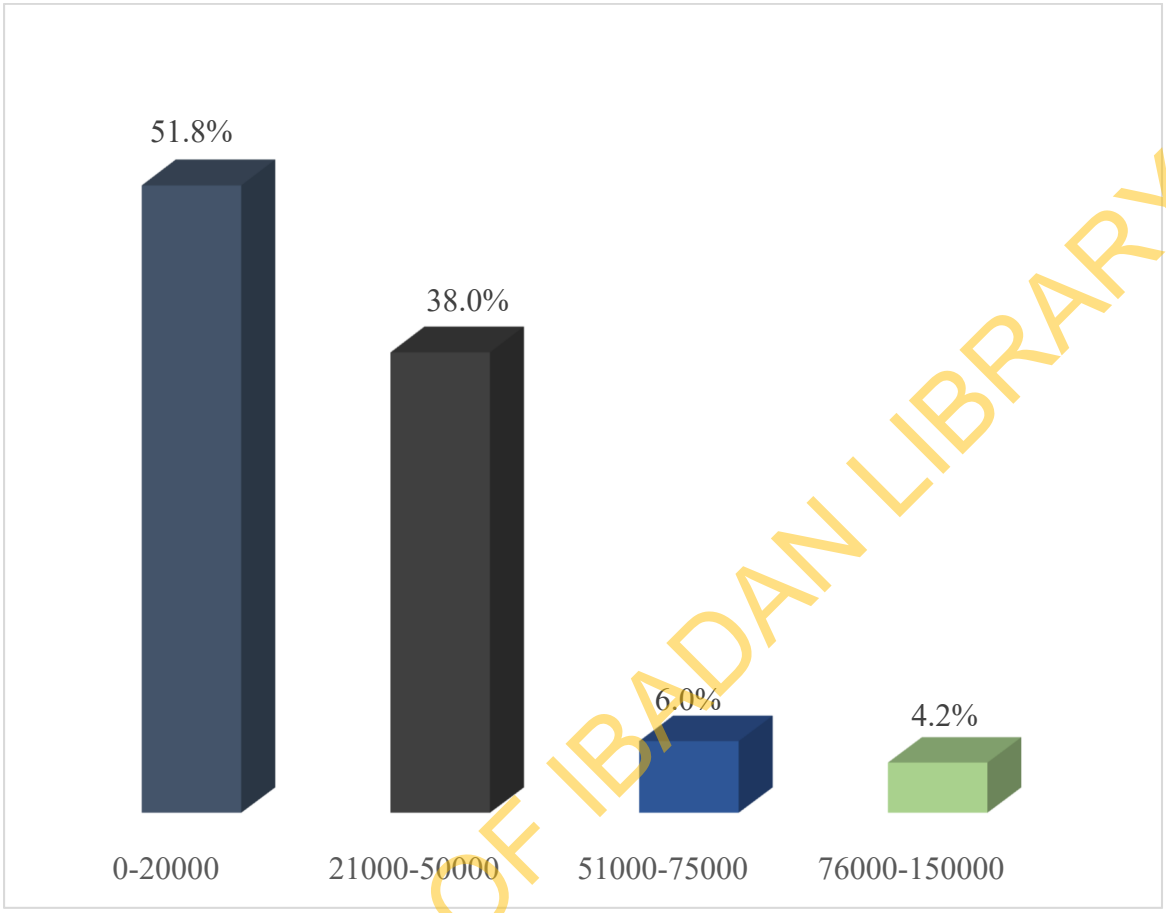

Figure 4.3: Respondents' average monthly income (in Naira)

4.1.2 Sources of information on food taboos

Majority (90.3%) of the respondents had heard about food taboos among pregnant women. The major sources of information to the respondents were from friends(53.4%), followed by blood relatives(51.9%) while the least source of information to the respondents were newspaper (12.7%). However, only a few (12.5%) of the respondents had not received any form of information on food taboos among pregnant women.

Table 4.2: Respondents' sources of information on food taboos (N=216)

Sources of information	No	%
Female blood relatives	98	51.9
Mother in-law	87	46.0
Spouse	40	21.2
Friends	101	53.4
Discussion with other women at antenatal clinics	66	34.9
Books	44	23.3
Newspaper	24	12.7
Radio	45	23.8
Television	48	25.4
Pregnancy magazine	31	16.4
Health workers	82	43.4
Social media	57	30.2
None of the above	12	12.5

Note: Multiple responses present

4.1.3 Knowledge of food taboos

Table 4.3 presents information on the knowledge of food taboos among the respondents.Correct knowledge of food taboo refers to respondents who do not accept any of the foods as taboo. About half 102(47.2%) of the respondents had poor knowledge scores, 76(35.2%) had fair knowledge score while 38(17.6%) had good knowledge score. However, the mean Knowledge Score (KS) was 9.7±4.7 with minimum and maximum score of 0.0 and 20.0 respectively.

On the types of food taboos, egg was reported not be a taboo by 198(91.7%) of the respondents, snail 132(61.1%), Grasscutter 75(61.1%), bitter yam 117(54.2%), Plantain/banana 177 (81.9%), Beverages 158(73.1%), Walnut 109(50.5%), Snake 43(19.9), Dog 75(34.1%), Okra 154 (71.3%), Pork 91(42.1%) and head of stock fish 152(70.4%).

The consequences of food taboo was reported correctly not to be depressed frontalle by 70(32.4%), animalistic behavior in the child 83(38.4%), animalistic resemblance 89(41.2%), excessive salivation 66(30.6%), prolonged labour 86(39.8%), reduction in contraction strength 79(36.6%), baby too large 62(28.7) and hiccups 84(38.9%).

Table 4.3 Respondents' knowledge of food taboos (N=216)

Knowledge variables	Yes No (%)	No No (%)
Foods that are taboo:		
Egg	18 (8.3)	198 (91.7)*
Snail	84 (38.9)	132 (61.1)*
Grasscutter	141 (65.3)	75 (34.7)*
Bitter yam	99 (45.8)	117 (54.2)*
Plantain/Banana	39 (18.1)	177 (81.9)*
Beverages	58 (26.9)	158 (73.1)*
Walnut	107 (49.5)	109 (50.5)*
Snake	173 (80.1)	43 (19.9)*
Dog	141 (65.9)	75 (34.1)*
Okra	62 (28.7)	154 (71.3)*
Pork	125 (57.7)	91 (42.1)*
Head of stockfish	64(29.6)	152 (70.4)*
Consequences of eating foods that are taboo:		
Depressed fontanelles	246 (67.6)	70 (32.4)*
Animalistic behaviour in child	133 (61.6)	83 (38.4)*
Animalistic resemblance of child	127 (58.8)	89 (41.2)*
Excessive salivation	150 (69.4)	66 (30.6)*
Prolonged labour	130 (60.2)	86 (39.8)*
Reduction in contraction strength	137 (63.4)	79 (36.6)*
Baby becomes too large	154 (21.3)	62 (78.7)*
Hiccups	132 (61.1)	84 (38.9)*

*Correct responses

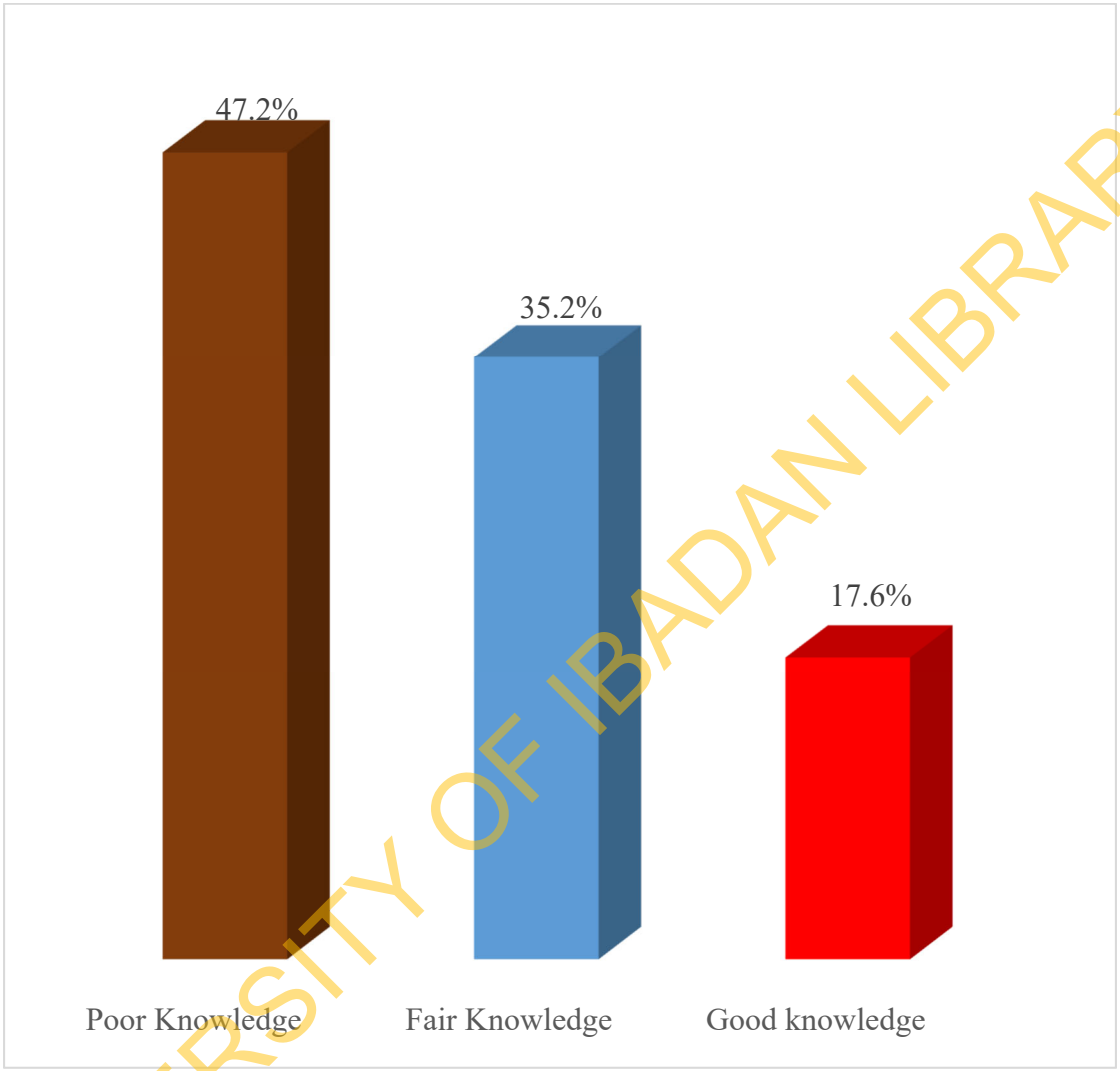

Figure 4.4: Respondents' knowledge of food taboos

Average Knowledge Score (KS) = 9.7±4.7

Minimum KS= 0.0

Maximum KS= 20.0

4.1.4 Practice of food taboos

The respondents' practice of food taboos is presented in Table 4.4. The overall food taboo practice revealed that about half (50.9%) of the respondents had unhealthy food practice while the rest (49.1%) had healthy food practice.Unhealthy practice here refers to respondents who believed that any food was taboo. The mean practice score for the respondents was 8.9±2.6 with minimum and maximum score of 1 and 12 respectively. Majority (71.8%) of the respondents avoided some type of food in pregnancy due to their belief that it is a taboo. Majority of the respondents however consumeegg (96.3%), snail (73.6%), plantain/banana (89.4%), beverages (87.5%), okra (85.6%) and stockfish (84.7%). Majority (54.6%) of the respondents do not eat snake meat because it is believed to be a taboo (Table 4.4)

Table 4.4 Respondents' practice of food taboo during pregnancy (N=216)

Variable	Yes No (%)	No No (%)
Practice of food taboo during pregnancy	155 (71.8)	61 (28.2)

Table 4.5 Respondents' who avoided food in pregnancy because it's a taboo (N=216)

Practice variables	Yes (%)	No (%)
Foods avoided in pregnancy because it's a taboo:		
Egg	8 (3.7)	208 (96.3)*
Snail	57 (26.4)	159 (73.6)*
Grasscutter	95 (44.0)	121 (56.0)*
Bitter yam	58 (26.9)	158 (73.1)*
Plantain/Banana	23 (10.6)	193 (89.4)*
Beverages	27 (12.5)	189 (87.5)*
Walnut	64 (29.6)	152 (70.4)*
Snake	118 (54.6)	98 (45.4)*
Dog	141 (65.9)	75 (34.1)*
Okra	31 (14.4)	185 (85.6)*
Pork	79 (39.4)	137 (60.6)*
Head of stockfish	33 (15.3)	183 (84.7)*

*Correct responses (respondents' who do not take the food as a taboo)

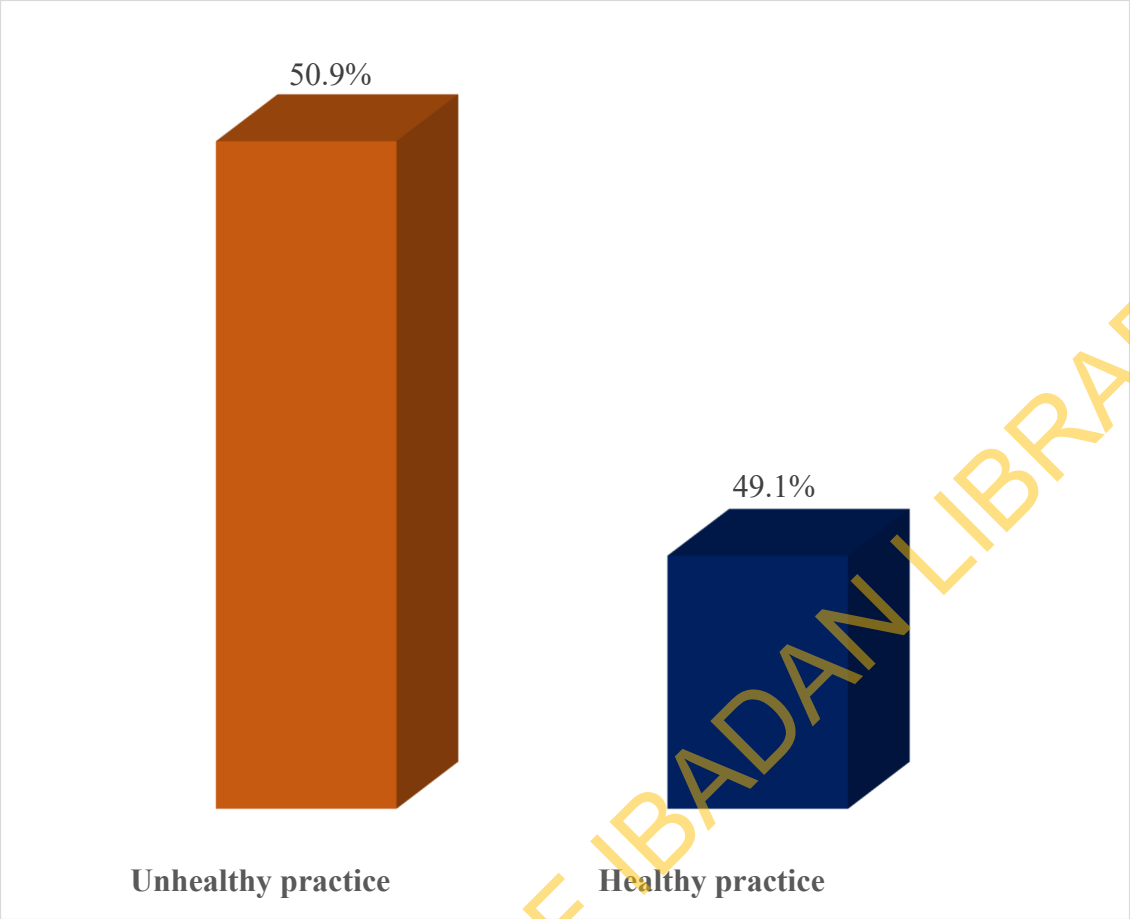

Figure 4.5: Respondents' practice of food taboos

Average Practice score= 8.9±2.6

Minimum Practice score= 1

Maximum practice score= 12

4.1.5 Reasons for practice of food taboos

Table 4.6 presents the reasons respondents practiced food taboos. Majority (47.3%) of the respondents practice food taboos for health reasons. Other reasons were cultural (38.0%), personal opinion (29.3%), religious (23.4%), foetus becoming too large (18.5%) while (13.7%) do not practice food taboos for any of the reasons highlighted above.

Table 4.6 Respondents' reasons for practice of food taboos

N=182

Variables*	Number	(%)
Cultural reasons	78	42.9
Religious	48	26.4
Health	97	53.3
Foetus becomes too large	38	20.9
Personal opinion	60	33.0

*Multiple responses present

4.1.6 Tst of Hypotheses

Hypothesis 1: There is no significant association between socio-demographic characteristics and the level of knowledge of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan.

Table 4.6.1 presents the result of the cross tabulations between respondents' socio-demographics and level of knowledge of food taboos.

Chi-square analysis revealed that there was no significant association between the age, level of education, religion, marital status, family structure, parity, occupation and monthly income and the knowledge of food taboos with a p-value < 0.05. Thus, the null hypothesis that there is no significant association in respondents' socio-demographic characteristics and knowledge of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadanof Oyo state was not rejected but there was a significant association between ethnicityand knowledge of food taboos therefore we rejected the null hypothesis.

Table 4.6.1 Respondents socio-demographic characteristics and knowledge of food taboos

Variables	Knowledge			Df	X^2	p-value
	Poor No(%)	Fair No(%)	Good No(%)			
Age(years)						
18-25	23(53.5)	17(39.5)	3(7.0)	4	5.793	0.215
26-32	58(47.2)	43(35.0)	22(17.9)			
33-41	21(42.0)	16(32.0)	13(26.0)			
Level of education**						
No formal education	0(0.0)	2(100.0)	0(0.0)	6	7.718	0.164
Primary	2 (66.7%)	1(33.3)	0(0.0)			
Secondary	23 (54.8%)	16 (38.1)	3(7.1)			
Tertiary	77(45.6)	57(33.7)	35(20.7)			
Ethnicity**						
Yoruba	90(47.6)	70(37.0)	29(15.3)	6	11.031	0.045*
Igbo	9(56.3)	2(12.5)	5(31.3)			
Hausa	19(100.0)	0(0.0)	0(0.0%)			
Others	2(20.0)	4(40.0)	4(40.0)			
Marital status**						
Single	3(60.0)	2(40.0)	0(0.0)	4	2.247	0.690
Married	98(46.7)	74(35.2)	38(18.1)			
Divorced	19(100.0)	0(0.0)	0(0.0)			
Family structure**						
Monogamy	84(45.4)	65(35.1)	36(19.5)	4	5.404	0.236
Polygamy	12(70.6)	4(23.5)	1(5.9)			
Single parent	6(42.9)	7(50.0)	1(7.1)			
Parity**						
0	42(45.2)	36(38.7)	15(16.1)	10	10.526	0.342
1	35(53.8)	17(26.2)	13(20.0)			
2	14(40.0)	17(48.6)	4(11.4)			
3	7(43.8)	5(31.3)	4(25.0)			
4	3(60.0)	0(0.0)	2(40.0)			
5	1(50.0)	1(50.0)	0(0.0)			
Monthly income (Naira)**						
0-20000	49(43.8)	42(37.5%	21(18.8)	6	9.202	0.140
21000-50000	45(54.9)	27(32.9)	10(12.2)			
51000-75000	4(30.8)	3(23.1)	6(46.2)			
76000-150000	4(44.4)	4(44.4)	1(11.2)			

**** Fisher's exact test** ***Significant (P<0.05)**

Hypothesis 2: There is no significant association between socio-demographic characteristics and the practice of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan.

Table 4.6.2 presents the result of the cross tabulations between respondents' socio-demographics and practice of food taboos.

Chi-square analysis revealed that there was no significant association between the ethnicity, religion, marital status, family structure, parity, occupation and monthly income and practice of food taboos with a p-value < 0.05. Thus, the null hypothesis that there is no significant association in respondents' socio-demographic characteristics and practice of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan of Oyo state was not rejected but there was a significant association between age, level of education and practice of food taboos therefore we rejected the null hypothesis.

Table 4.6.2 Respondents socio-demographic characteristics and practice of food taboos

Variables	Practice		Df	X^2	p-value
	Unhealthy(%)	Healthy (%)			
Age(years)					
18-25	32(74.4)	11(25.6)	2	12.584	0.002*
26-32	58(47.2)	65(52.8)			
33-41	20(40.0)	30(60.0)			
Level of education**					
No formal education	1(50.0)	1(50.0)	3	6.895	0.036*
Primary	3 (100.0%)	0(0.0)			
Secondary	27(64.3%)	15(35.7)			
Tertiary	79(46.7)	90(53.3)			
Ethnicity**					
Yoruba	98(51.9)	91(48.1)	3	2.515	0.470
Igbo	6(37.5))	10(62.5)			
Hausa	0(0.0)	1(100.0)			
Others	6(60.0)	4(40.0)			
Marital status**					
Single	3(60.0)	2(40.0)	2	1.203	0.837
Married	107(51.0)	103(49.0)			
Divorced	0(0.0)	1(100.0)			
Family structure					
Monogamy	90(48.6)	95(51.4)	2	3.230	0.199
Polygamy	12(70.6)	5(29.4)			
Single parent	8(57.1)	6(42.9)			
Parity**					
0	53(57.0)	40(43.0)	5	10.526	0.342
1	31(47.7)	34(52.3)			
2	16(45.7)	19(54.3)			
3	6(37.5)	10(62.5)			
4	3(60.0)	2(40.0)			
5	1(50.0)	1(50.0)			
Monthly income (Naira)**					
0-20000	62(55.4)	50(44.6)	3	1.911	0.601
21000-50000	38(46.3)	44(53.7)			
51000-75000	6(46.2)	7(53.8)			
76000-150000	4(44.4)	5(55.6)			

**** Fisher's exact test** ***Significant (P<0.05)**

Hypothesis 3: There is no significant association between knowledge of food taboos and the practice of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan.

Table 4.6.3 presents the result of the cross tabulations between respondents' knowledge of food taboos and practice of food taboos.

Chi-square analysis revealed that there was a significant association between knowledge of food taboos and practice of food taboos with a p-value >0.05. Thus, the null hypothesis that there is no significant association in respondents' knowledge of food taboos and practice of food taboos in pregnancy among pregnant women attending secondary antenatal clinics in Ibadan of Oyo state was rejected.

Table 4.6.3: Respondents' knowledge of food taboos and practices of food taboos

Knowledge of food taboos	Practice of food taboos		Total	Df	X^2	p-value
	Unhealthy (%)	Healthy(%)				
Poor	61(59.8)	41(40.2)	102(100.0)	2	7.850*	0.020**
Fair	36(47.4)	40(52.6)	76(100.0)			
Good	13(34.2)	25(65.8)	38(100.0)			
Total	110(50.9)	106(49.1)	216(100)			

*Chi square statistic was used

**Significant (p> 0.05)

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1.1 Socio-demographic profile of pregnant women attending antenatal clinic in Secondary Health facilities in Oyo state.

A large proportion of the respondents were between the age group of 26-35 years. This reflects the observation that most women give birth in their mid-twenties towards mid-thirties as this has been reported to be the fertile periods of women. Majority of the respondents had tertiary education; this could be as a result of the location of the study which is a secondary health facility. Majority of the respondents are Christians and Yorubas which could be as a result of the study setting (Ibadan) which is the largest city in West Africa. Almost all the respondents were married which is normal as child birth outside marriage is frowned at in the society. Also, most of the respondents are from a monogamous family; this is expected as the society is tending towards monogamy due to civilization and increase in literacy. Majority of the respondents are carrying their first pregnancy which could be the reason for the young age group observed. Majority of the respondents were traders which is a kind of occupation women are tending towards as it tends to give them time for their family. The average monthly income of the respondents is well above the minimum wage of #18,000 in Nigeria hence, it could be said the respondents could afford their basic needs.

5.1.2 Sources of information on food taboos

Majority of the respondents' source of information was friends, followed by female blood relatives. This is similar to the findings of Hassan, Elawad and Ahmed(2018), which revealed that the major source of information to pregnant women is their mothers (50%), followed by their mother and other pregnant women (21.2%) each. Doctors and nutrition counsellors are the least source of information (7.7%).

5.1.3 Knowledge of food taboos

About half of the respondents had poor knowledge scores, two-third had fair knowledge score while less than one-fifth had good knowledge score. This may be due to the fact majority of the respondents had some form of education hence not regarding which food is a taboo and which is not. There was a significant relationship between ethnicity and knowledge of food taboo among the respondents with p-value < 0.05. However, other socio-demographics such as age, religion, level of education, marital status and family type and knowledge of food taboos were not significant. This is consistent with the findings by Ugwa (2016) who also found out that other than parity, all other socio-demographic factors did not show any statistically significant association with the nutritional practices and taboos of the women.

5.1.4 Practice of food taboos

The overall food taboo practice revealed that about half of the respondents had unhealthy practice while almost half had healthy practice. This is similar to the findings of Zepro (2012) on food taboos and misconceptions among Pregnant Women of Shashemene District, Ethiopia where almost half (49.8%) of the respondents avoid one or more food items during pregnancy. Hassan, Elawad and Ahmed(2018), also reported that a large group of pregnant women (43.8%) refrained from eating some foods during pregnancy which is a little bit lesser than the findings from this study. Contrary to the findings of Getnet, Aycheh& Tessema(2018), which revealed that 27% of study participants had food taboo.

Pregnant women were restricted from eating foods like banana, plantain, grass cutter, snake, snail, okra and head of stockfish because they are believed to cause harm to the child and/or mother. This finding is in tandem with the findings of Oluleke *et al*, (2016)who established that pregnant women are restricted from eating certain food items such as liver, intestines, kidney, milk, sweet potatoes, sugar, salt, eggs and bananas because these foods are believed to cause obstructed labour.

There was a significant relationship between age and practice of food taboos among the respondents with p-value <0.05. This is consistent with the findings from Hassan, Elawad and Ahmed(2018) which in a multivariate regression analysis shows that the age of the mother was significantly associated with food taboo. As the age of the mother is increased, adoption of the

food taboo increased. Pregnant women whose age is 20-24 years were 2.97 timesmore likely to develop food taboos compared with the age between 15 and 19 years

More so, there was a significant relationship between level of education and practice of food taboos among the respondents as p-value was < 0.05. This could be due to the enlightenment their education had brought to them and the fact they are able to find out information on their own. Also, there was a significant association between knowledge of food taboos and practice of food taboos. It could be said that knowledge influences practice, hence a good knowledge could invariably leads to healthy practice and vice versa.

5.1.5 Reasons for practice of food taboos

Majority of the respondents practice food taboos for health reasons. This is similar with the findings of Scholl and Hedger (1993) which showed that pregnant women often have restricted food intake mainly due to morning sickness which is prevented and treated by eating little and limited items of food. It was also believe that a large fetus causing obstructed labor will result from eating unrestricted amount of food.Hassan, Elawad and Ahmed(2018), also found that foods were avoided because of nausea, which was also corroborated by the report of Comoro et al., (2003)

Culture was also another reason given for avoiding certain foods in pregnancy. This is in tandem with the findings of Comoro et al., (2003) where a considerable groupof pregnant women (35.9%) stated that the reason for not eating certain types of food during pregnancy was due to social norms which prohibit the consumption of such types of food during pregnancy and these are related to social taboos in the community. This result is also in line with a study carried out by Counihan and Penny (2003) who concluded that (41.1%) of the pregnant women related the reason for food refraining to the fact that they were socially prohibited.

Personal opinion was another reason for practicing food taboo. This is consistent with Hassan, Elawad and Ahmed(2018), who reported that a large group of pregnant women refused to eat certain foods during pregnancy for personal reasons (46.2%). This result is similar to what Christian et al., (2006) in Tanzania where it was found that, (75.8%) of the pregnant women refused to eat certain foods during pregnancy for personal reasons.

Religious reasons have been embedded into cultural reasons. Food avoided for religious reasons do not necessary affect the child or the other. For instance the Muslims avoid eating pigs for religious reasons and not because of the pregnancy.

Foetus being too large 38(18.5%) was another reason for practicing food taboo highlighted by the respondents. This is similar to the report of Hassan, Elawad and Ahmed, (2018) and Department of Health and Children (2003) in Indonesia who revealed that food taboos in the community (80%) of the pregnant women desisted from eating certain foods like red meat, fishes and other food from rivers because they lead to difficulties during delivery and they cause the fetus to be upside down in the womb, while (22%) for them did not eat eggs during pregnancy because they cause diseases to mothers.The Christian Relief and Development Association (1991) reported that in the northern part of Ethiopia high carbohydrate and fat foods are forbidden for pregnant women with the assumption that it will bring about easier labor and smaller babies which is similar to the findings from this study were pregnant women avoided certain food to avoid their babies becoming too large thereby making the delivery process faster and easier.

5.2 Implications of finding for Health Promotion and Education

The findings from this study has many implications on the planning and implementation of interventions for maternal and child health. The study had revealed there is relationship between knowledge of food taboos and its practice, hence a need to address this to ensure optimum health of the mother and child during and after pregnancy. Therefore, in order to improve the knowledge and reduce the practice of food taboos, the following underlisted strategies will be employed.

Public Enlightenment

There should be an intensive and purpose driven campaign on food taboos during pregnancy. The public enlightenment could be done with the use of mass and social media as these are relatively available source of information to the pregnant women. The use of Information, educative and communication (IEC) materials should be employed in doing this as it helps to drive the information home better when adequately designed.

Training

Health workers should be trained on how to better deliver maternal nutrition information to pregnant women. Health workers are the closest to pregnant women; they are the ones who attend to them during the antenatal clinics, hence they are in the best position to deliver this information and also ensure compliance through regular reminder during antenatal clinic days.

5.3 Conclusion

The study investigated the knowledge and practice of food taboos among pregnant women receiving antenatal care at secondary health facilities in Ibadan, Oyo state. The awareness of food taboos among the women is very high as most of them had heard about it before. The level of knowledge on food taboos is poor while the general practice is also unhealthy. Therefore, it could be concluded that poor knowledge of food taboos is responsible for the unhealthy practice among the pregnant women.

Snail, snake, grasscutter, pork, head of stockfish are some of the foods avoided in pregnancy. Depressed fontanelle, fear of birthing large babies, animalistic behaviour in child, animalistic resemblance of child, excessive salivation, prolonged labour among others are the likely consequences of not practicing food taboos stated by the respondents. Major sources of information available to pregnant women were friends, female blood relatives and health workers. Public enlightenment and training of health workersto supply pregnant women with information debunking myths of food taboos in pregnancy can be used to address the practice of food taboos among pregnant women. This study therefore showed that knowledge of food taboos should be increased while the practice of food taboos reduced. This will help prevent poor maternal nutrition and hidden hunger in children. Also, consumption from a variety of food sourceswill improve the optimal development of the baby, thereby making them less vulnerable to diseases later in life.

5.4 Recommendations

Based on the findings from this study, the following recommendations are made:

1. There should be media advocacy to correct the erroneous information about the effect of food consumed during pregnancy. The masses should be made aware that there are no consequences of consuming certain foods in pregnancy as popularly taught in our cultures. Media advocacy will ensure everyone hears about it especially the aged and illiterate ones who are the chaperones of this practice.
2. There should be capacity building for health workers on how to better inform the pregnant women on food taboos. A pregnant woman should attend antenatal clinic at least three times before delivery; this opportunity can then be used to pass appropriate information to these women and disabuse their minds from the erroneous beliefs that has been established by their relatives or elderly persons around them.
3. Peer education should be encouraged. Women who have given birth to more than two children and did not practice food taboos should be allowed to speak to pregnant women during the antenatal clinic days as they will be able to better relate with these persons since they have been and currently are in their positions.

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APPENDIX 1

Serial No----------

QUESTIONNAIRE

A STUDY ON FOOD TABOOS AMONG PREGNANT WOMEN RECEIVING ANTENATAL CARE AT SECONDARY HEALTH FACILITIES IN IBADAN, OYO STATE

Dear Respondent,

I am Adekoya Adebisi, a postgraduate student of the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan. The aim of this study is to investigate to the level of knowledge and the practices of food taboos among pregnant women receiving antenatal care in secondary health facilities in Ibadan, Oyo State. The result gotten from this research will help inform recommendations that will be used in re-orienting healthcare workers on the best health information, education and counselling to pass across to pregnant women during antenatal visits or other health education interventions. There are no right or wrong answers to the questions; what is desired of you is your truthful and honest response. All information obtained will be treated with the utmost confidentiality and will be used for the purpose of research only.

The researcher is available to answer any question[s] you may have concerning the study. You can reach the researcher on 08052557190 or debisikoya@gmail.com

CONSENT

I acknowledge that the purpose of this study has been explained to me. I understand the implications of partaking in this research and I voluntarily give informed consent to participate. I also agree to "shared confidentiality" with departmental staff.

I consent to findings from this study being shared on newsletters, journals and health magazines.

Date..... Signature.....

SECTION A: SOCIO-DEMOGRAPHIC DATA

Instruction: Please tick [√] appropriate options in the boxes and fill in appropriate information where necessary.

1. Sex: 1. Male ☐ 2 Female ☐

2. Age as at last birthday [in years]: ☐

3. Level of education: 1. Primary ☐ 2. Secondary ☐ 3. Tertiary ☐ 4. No Formal Education. ☐

4. Religion: 1. Christianity ☐ 2. Islam ☐ 3. Traditional ☐

5. Ethnicity: 1.Yoruba ☐ 2. Hausa ☐ 3. Igbo ☐ 4. Others [please specify] _____

6. Marital status: 1. Single ☐ 2. Married ☐ Divorced ☐ Widowed ☐

7. Family structure: 1.Monogamy ☐ 2. Polygamy ☐ Single parent ☐

   4. Others [specify] ----------

8. Number of children [parity] _____

9. Occupation [specify] _____

10. Monthly income [₦]: 1. None ☐ 2. < 18, 000 ☐ 3. 18, 000 – 30, 000 ☐
    4. 31, 000 – 45, 000 ☐ 5. 46, 000 – 60, 000 ☐ 6. > 60, 000 ☐

SECTION B: Knowledge of Food Taboos

	Yes	No
11. Have you heard of food taboos for pregnant women during pregnancy?		
Which foods do you know as taboo for pregnant women?		
12. Egg 13. Snail 14. Grass cutter 15. Bitter yam 16. Plantain / banana 17. Beverages [milo, bournvita etc] 18. Walnut 19. Snake 20. Dog 21. Okro 22. Pork 23. Head of stock fish		
What are the possible consequences of ignoring any of the food taboos?		
24. Depressed fontanelle		
25. Animalistic behaviour in the child		
26. Animalistic resemblance in the child		
27. Salivate excessively		
28. Prolonged labour		
29. Reduced contraction strength		
30. Baby too large		

SECTION C: Sources of information on Food Taboos

Through whom or which means did you hear of the food taboo[s] you know?

[*Please tick as many options as applicable*]

S/N	SOURCES OF INFORMATION	YES	NO
31.	Female blood relatives		
32.	Mother-in-law		
33.	Spouse		
34.	Friends		
35.	Discussions with other women at antenatal clinic		
36.	Books		
37.	Newspapers		
38.	Radio		
39.	Television		
40.	Pregnancy magazine		
41.	Health workers		
42.	Social media		
43.	None of the above		

SECTION D: Reasons for practice of Food Taboos

What is/are your reason[s] for practicing food taboos?

[*Please tick as many options as applicable*]

44. Cultural ☐
45. Religious ☐
46. Health ☐
47. Causes foetus to be too large ☐
48. Not applicable ☐

SECTION E: Practice of Food Taboos

S/N	Statement	Yes	No
49.	Do you avoid some foods in pregnancy due to your belief in food taboos?		
50.	Please tick any food that you do not consume in pregnancy as a result of your belief that it is a taboo in pregnancy [*Please tick as many options as applicable*] Egg Snail Grass cutter Bitter yam Plantain / banana Beverages [milo, bournvita etc] Walnut Snake Dog Okro Pork Head of stock fish		

APPENDIX 2

Serial No----------

QUESTIONNAIRE

IWADI ÎJÌNLÈ NIPA OUNJE EEWO FUN AWON ALABOYUN TI O N GBA ITOJU OYUN NI AWON ILE-IWOSANGBOGBOGBO TI IJOBA NI ILU IBADAN, IPINLE OYO.

Ìfáàrá: Oruko mi ni Adekoya Adebisi,Mojéakékòóṣèkaìgbélaruge ìleraàtiètòèkọ́,níèkaèkọ́ìleraaráìlú,kọ́léjìtiìwòsàn, Ile-iwe gigati Ibadan [Department of Health Promotion and Education, College of Medicine, Universịty of Ibadan].Ẹrónǵbàisẹ́yiínilátiṣeìwádìílóri awọn ipele ti imo ati awọn iṣe eewọ ounjelaarin awọn alaboyun ti o n gba itọjuni awọn ile-iṣẹ ilera gbogbogbo ni Ibadan, Ipinle Oyọ. Idahun ti a ba gba lati inu iwadi yii yoo ṣe iranlọwọ fun awọn oṣiṣe eleto ilera lati ṣe atunṣe nipa awọn alaye ati imọran ilera ti o dara julọ lati fi ṣe idanileko fun awọn alaboyun ati ni awọn akoko iṣẹ ilera ṣiṣe miiran. Kòsíìdáhùntíótònàtàbítíkòtònà si àwọnìbéèrè wonyi; ohuntíopọndandanfúnyínnisíṣeòtítọ́pẹ̀lúòdodonínúawọnìdáhùnyin.ẹ̀wẹ̀, morọ̀yínlátimọ̀ wipe dídáhùnàtòjọ́ìbéèrèko kàńpárárá.Gbogboàbájádeèsìlẃádìí iṣẹ́yìílátàrîìkópayinníaóṣeníbòńkẹ́lẹ́tíaosìlòófúnisẹ́ìwádiínìkan.Oluwadi wa lati dahun ibeere kibeere ti e ba ni nipa ise iwadi naa.
E le kan si oluwadi lori ero ibanisoro lori nomba: 08052557190 tabi lori ero ayelujara debisikoya@gmail.com

Ifọwọ́sí

Mo ti ka fọ́ọmù ìfọwọ́sí yii, tí ó sì ti yémi yéké yéké. Mo sì finú-fíndò faramọ́/nkòfaramọ́ láti Kópa nínú ìwádìí nípa fífalà sí inú àkámọ́ tí ó bá èrò mi lọ ní ìsàlè yìí.

1. Faramọ́[] 2. NkòFaramọ́[]

Ìbuwọ́lù:---------- Ojọ́:----------

Abala A: Ìbéèrè àbùdá ẹni ajẹmọ àwùjọ
Ikìlọ̀:Dákun falà sí inú àkámọ́ tí apèsè(gégẹ́ bí ó ti yẹ)

1. sex: 1. Ako ☐ 2 Abo
2. Kíni ọjọ́-orí yín ní ayẹyẹ ọjọ́ ìbí tí ẹ ṣe kọjá?_____(ní ọdún)
3. Ipele ti Eko: 1. ẹ̀kọ́ ìwé méfà ☐ 2. ẹ̀kọ́ ilé-ìwé girama ☐ 3. ẹ̀kọ́ ilé ìwé gíga☐
   4. Okòkaìwé ☐
4. ẹ̀sìn: 1. Kristeni ☐ 2. Musulumi ☐ 3. ẹlẹ́sìn ìbílẹ ☐
5. ẹ̀yà: 1.Yoruba ☐ 2.Hausa ☐ 3.Igbo ☐ 4. ẹ̀yà òmíràn (tọ́kasẹ̀)_____
6. Ipo igbeyawo: 1. Omidan ☐ 2. Ti gbeyawo3. ☐ẹ 4. Op☐ ☐
7. Ilana ti ẹbi: 1. Oniyawo☐ kan2. Oniyawo pu☐. Obi kan
   4☐herṣ [ṣpecify] ----------
8. Iye ọmọ[parity] _____
9. Ise sise [pato] _____
10. Iye owo oṣooṣu [₦]: 1. Ko si 2.☐in ni 18, 000 ☐18, 000 – 30, 000 ☐
    4. 31, 000 – 45, 000 5. 4☐00 – 60, 000 ☐
    6. O din ni 60, 000 ☐

Abala B: Imọye ti Awọn ounjẹ eewo

	Bẹẹni	Rara
11. Njẹ o ti gbọ nipa awọn ounje ti o je eewo fun awọn aboyun lakoko oyun?		
Awọn ounjẹ wo ni o mọ gẹgẹbi eewo fun awọn aboyun?		
12. Eyin 13. Ìgbín 14. Okete 15. Esuru 16. Ogede agbagba / ogede weewe 17. Awọn ohun mimu [milo, bournvita etc.] 18. Awusa/ Asala 19. Eran Ejo		

20. Eran Aja 21. Ila 22. Eran Elede 23. Ori eja panla		
Kini awọn ipalara ti o le ṣu yọ nipa aikiyesi awọn eewọ ounjẹ?		
24. ọka ori		
25. Omọ yoo maa huwa ti o farape ti eranko		
26. Omọ naa yoo jọ eranko		
27. Omọ yoo maa datọ lenu		
28. Idaduro ni akoko irọbi		
29. O maa n din agbara irọbi ku		
30. Omọ a tobi ju		

Abala C: Awọn orisun alaye lori awọn eewo ounjẹ

Nipasẹ tani tabi ona wo ni o ti gbọ nipa awọn eewo ounjẹ ti o mọ? [Jọwọ fi ami si awọn aṣayan pupọ ti o wulo]

S/N	Awọn orisun alaye	Bẹẹni	Rara
31.	Ibatan obinrin		
32.	Iya-ọkọ		
33.	ọkọ		
34.	Awọn ọrẹ		
35.	Awọn ijiroro pẹlu awọn obinrin miiran ni ile-iwosan awon oloyun		
36.	Awon iwe		
37.	Iwe iroyin		
38.	Ero asoro-ma-gbesi		
39.	Ero amohun-maworan		
40.	Iwe irohin nipa oyun		
41.	Awọn oṣiṣẹ eleto ilera		
42.	Ero ayelukara		

43.	Ko si lara ti oke		

IPIN D: Idi fun Iṣe eewo Ounje

Kini awon idi ti o fi n se akiyesi awon eewo ounje?

[Jọwọ fi ami si awọn aṣayan pupọ ti o wulo]

44. Asa ☐
45. Esin ☐
46. Ilera ☐
47. O n je ki ole inu tobi ju bi o ti ye lo ☐
48. Not applicable ☐

SECTION E: Ise eewo ounje

S / N	Gbólóhùn Bẹẹni Bẹẹkọ	Bẹẹni	Rara
49.	Ṣe o yago fun awọn ounjẹ kan ninu oyun nitori igbagbọ rẹ ninu awọn eewọ ounje?		
50.	Jọwọ fi ami si eyikeyi ounjẹ ti o ko jẹ ninu oyun nitori igbagbọ rẹ pe o jẹ eewọ ni ipoiloyun [Jọwọ fi ami si awọn aṣayan pupọ ti o wulo] Ẹyin Ìgbín Okete Esuru Ogede agbagba / ogede weewe Awọn ohun mimu [milo, bournvita etc.] Awusa / Asala Eran Ejo Eran Aja Ila Eran Elede Ori eja panla		