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“It’s a normal thing for pregnant women” – Pregnant women
‘playing by the rules’ in antenatal centres with routine tetanus
vaccination in Nigeria – an explorative study

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Abstract

Background: Although the World Health Organisation (WHO) recommends vaccination during pregnancy to all pregnant women; the delay or incomplete use of vaccines has been a challenge globally. The data in Nigeria indicates only 62% of pregnant women receive two of five recommended doses of tetanus-toxoid containing vaccine (TTCV), way less than the 80% required by WHO for maternal and neonatal tetanus elimination (MNTE). It is well known that one of the most effective ways of eliminating tetanus disease, particularly in high-risk countries is adequate vaccination of pregnant and childbearing-age women. The recommendation in Nigeria largely concentrates on one to three doses during pregnancy depending on when a pregnant woman initiates antenatal booking, paying less attention to the issue of completion of doses after the child is born. The majority of research in this area heavily emphasises the roles of the health system, care providers and pregnant women in regard to the routine use of TTCV in antenatal centres, highlighting the lack of understanding of what TTCV is within everyday social interaction. Nevertheless, there is a notable lack of research into pregnant women's perceptions of their experiences of the use of TTCV in antenatal centres.

Aims: This research study explores how pregnant women in different antenatal centres in Nigeria perceive routine vaccination with TTCV and examines factors that influence this perception.

Design and method: Qualitative interpretative research was conducted in three antenatal care centres in Ogun State, Nigeria. The antenatal settings were: 1) hospital; 2) tradition-based; and 3) faith-based centres. In-depth semi-structured interviews were conducted with forty-one (41) childbearing-aged pregnant women in English and Yoruba languages between October 2019 and February 2020. Following transcription and translation, data management was facilitated using NVivo 12 and thematic analysis was used to identify, analyse, and categorise the data into themes.

Findings: The analysis identified three major themes demonstrating the pregnant women's perceptions of routine tetanus vaccination as: 1) making antenatal centre preferences, 2) relational and value alignment and 3) 'playing by the rules' in preferred antenatal centres.

Findings revealed that TTCV was not only perceived as maintaining the 'status quo' in different antenatal centres but that largely, the pregnant women paid less attention to the use of TTCV. The belief that caregivers in antenatal centres have the best interest of the pregnant women caused them to mainly concentrate on the form of care to seek during pregnancy – formal, informal or both. To make the decision on preferred antenatal centres, the pregnant women

aligned with relationships and beliefs that they found valuable to their choice of antenatal centres and followed the existing order in their preferred centres, including vaccination with TTCV. The participants followed the use of one to three doses of the five recommended doses of TTCV depending on when they registered and started antenatal care. The pregnant women felt that there was no need to “ask doctors the meaning of this injection”, since it was recommended by their caregivers and that previously pregnant and other women used the vaccine. The pregnant women in this study engaged in the use of the ‘usual’ one to three doses of TTCV as a rule of pregnancy care and did not necessarily complete the recommended doses after the child is born, a form of ‘game playing’. The metaphor of game playing indicates the strategy of the pregnant women of successfully getting through the period of pregnancy by following the rules that are believed to be in the interest of a healthy baby and not for themselves. The pregnant women engaged in vaccination with less participation in the process by solely acting in accordance with routines and antenatal set rules.

Drawing on Bourdieu (1990) concept of practice and his conceptual triad of field, habitus and capital, this study’s findings demonstrate most pregnant women were neither involved nor engaged in vaccination but did use TTCV as “*raison d’etre*”, which is important to achieve a positive pregnancy outcome, and as a “socially recognised” and a worthwhile routine to engage (Bourdieu, 1990:18). Not that the pregnant women naively acted in accordance with the antenatal set rules, but they strategically preserved antenatal routines mainly for the purpose of a healthy pregnancy outcome. According to Bourdieu and Wacquant (1992), players/agents come to the field with the intention to either change or preserve their boundaries while they struggle for their rewards. In this light, the pregnant women perceived TTCV as maintaining a standard of pregnancy care in their preferred antenatal centres, largely as a means to a possible healthy baby, and not a routine to continue after the child is born.

Implication: This study highlighted the ways that the health system in Nigeria does not meet the vaccination information needs of pregnant women. It also raises the potential for an innovative approach to address the informality that underlines the use of TTCV suggesting the need for a deliberate, constructive, and efficient information dissemination to support the pregnant women in their vaccination with TTCV. This study also suggests ways that vaccination education could be pivotal in meeting the vaccination information needs of pregnant women in Nigeria, with a focus on re-educating health professionals on adequate vaccination as well as involving the formal and informal stakeholders in vaccine administration. Finally, this study suggests that TTCV recommendation tone should be focused on motherhood rather than on the period of pregnancy in order to extend the priority of women of routine vaccination with TTCV. In other words, extend the game playing with TTCV beyond the period of pregnancy.

Key words: Pregnant women, tetanus toxoid-containing vaccine, and routine vaccination of one to three doses.

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Lay Summary

The majority of tetanus infections and deaths occur among pregnant women and newborn babies in African countries like Nigeria. This is because of the poor hygiene in places where babies are born and the improper care of the umbilical cord of the baby. Five doses of tetanus toxoid-containing vaccine (TTCV) are recommended by the World Health Organisation (WHO) for all child-bearing age women (women aged 15-49 years) so as to protect them and their babies from this disease. However, what is common is that most women start to use TTCV during pregnancy and they are only able to use one to three doses out of the five recommended doses depending on when they register and start antenatal care. Additionally, caregivers in most antenatal centres focus on ensuring pregnant women use TTCV during pregnancy and pay less attention to encouraging the women to complete the remaining doses after delivery. The most frequently reported reasons for the improper and incomplete use of TTCV are the roles of the caregivers as well as the attitude of pregnant women. This points to the lack of understanding of what pregnant women themselves feel about the use of TTCV.

This research is designed to gain insight into how pregnant women in different antenatal centres perceive their experiences of the use of TTCV and to examine the factors that influence this perception.

The research was conducted in three different antenatal centres in South-West Nigeria which are 1) hospital; 2) tradition-based; and 3) faith-based centres. Forty-one (41) pregnant women aged 15-49 years were interviewed to share their experiences.

Findings showed that TTCV was not the focus of the pregnant women. Since TTCV is a recommended routine and 'normal' practice in antenatal centres, the pregnant women rarely "*ask doctors the meaning of this injection*", rather, they focused on where to seek antenatal care, that is, formal, informal or both centres and followed the recommended routines and practices in their preferred antenatal centres. The pregnant women felt that TTCV represented an expected practice of pregnancy care which they perceived to be unquestionable since previously pregnant and other women used it. Moreover, they believed the intention of their caregiver recommending TTCV to them is in line with their interest of having a healthy baby. For these reasons, the pregnant women engaged with the use of TTCV as a rule of pregnancy care in order to maintain the 'status quo' in the antenatal centres and not necessarily continue with the remaining doses of TTCV after the baby is born. Being obedient to the rule of antenatal care so as to protect the growing fetus has been identified as the most significant reason for the use of TTCV in this study.

Gaining an understanding of the pregnant women's perceptions of their experiences of the use of TTCV would inform the recommendation of TTCV in antenatal centres that emphasises complete vaccination beyond the period of pregnancy.

Dedication

I dedicate this thesis to my parents, Most Snr. Evang. Raphael Okanola Amusa and Mother in Celestial Deborah Oluwakemi Amusa who both laid the path to this achievement. While dad got a primary school education only, mum did not get any chance to education, yet they sacrificed everything to ensure me and my four siblings received invaluable education, mostly at private schools. They live in the Ile-Epo area of Lagos State, Nigeria and a copy of this thesis will be printed for them just for admiration and pride in the outcome of their investment in cultural capital.

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Abbreviations and Acronyms

ACIP	Advisory Committee on Immunization Practices
ANC	Antenatal Care
CHEW	Community Extension Workers
FAC	Formal Antenatal Centre
FMOH	Federal Ministry of Health, Nigeria
GDP	Gross Domestic Product
IAC	Informal Antenatal Centre
IHME	Institute for Health Metrics and Evaluation
LGAs	Local Government Areas
LMIC	Low and Middle-Income Countries
MDGs	Millenium Development Goals
MNTE	Maternal and Neonatal Tetanus Elimination
NDHS	Nigeria Demographic and Health Surveys
NHIS	National Health Insurance Scheme
PAC	Preferred Antenatal Centres
PHC	Primary Health Centres
RTV	Routine Tetanus Vaccine
RVP	Routine Vaccination Practice
SAGE	Strategic Advisory Group of Experts
SDGs	Sustainable Development Goals
SSA	sub-Saharan Africa
TTCV	Tetanus Toxoid Containing Vaccine
TBA	Traditional Birth Attendants
UN	United Nations
UNICEF	United Nations Children's Fund
VPDs	Vaccine-Preventable Diseases
WHO	World Health Organisation
WRA	Women of Reproductive Age

CHAPTER ONE

INTRODUCTION

“The immunisation community must seek to maintain its hard-won gains but also aim to do more and to do things better, which may involve doing things differently” - Assessment report of the Global Vaccine Action Plan (WHO, 2018 :iv)

1.1 Introduction

Despite the recommendation of maternal vaccines since the early sixties with significant evidence of their effectiveness and safety, vaccination uptake during pregnancy remains low (Amoak et al., 2022, Etti et al., 2022). The decision to vaccinate points to a gap between pregnant women’s interest and influencing contextual factors. A sizeable number of pregnant women underutilise antenatal care services with routine vaccination with tetanus toxoid containing vaccine (TTCV) being one of its components. This qualitative study seeks to explore the relationship between pregnant women’s routine vaccination practice (RVP) and the context of their experience of vaccination with TTCV in different antenatal centres in Nigeria. Section 1.2 provides the background to this study and section 1.3 states the aims of this thesis along with the research questions that were explored. Section 1.4 explores the context of the study and includes a description of i) the geography, sociodemographic characteristics, and administration in Nigeria, ii) Nigeria’s economic profile iii) the health status of the country including iv) neonatal tetanus infection in Nigeria and v) the nation’s health delivery system.

1.2 Background of study

In Nigeria, pregnant women are recommended a 5-dose TTCV starting during pregnancy to complete within two years after the child is born. The aim is to protect neonates and child-bearing age women who are most at risk of tetanus infection, particularly in high-risk countries such as Nigeria. Ensuring adequate use of TTCV has mostly been the responsibility of the healthcare system and workers in form of supply and administration of the vaccine. (Krishnaswamy et al., 2019). Achieving maternal and neonatal tetanus elimination (MNTE) through adequate use of TTCV is now reported to be the responsibility of both the healthcare system and the pregnant women (Faria et al., 2021, WHO, 2018). As such, information about the way in which pregnant women perceive the use of TTCV has the potential to offer them

lifelong protection and promote adequate routine vaccination in antenatal centres to achieve MNTE.

According to the WHO (2022) tetanus vaccine-preventable infection is still of global concern and the cause of rising neonatal deaths. In 2018, which was the latest year for which global neonatal death estimates were reported, approximately 25, 000 neonates died from neonatal tetanus infection which was about 1% of all neonatal deaths (CDC, 2022, WHO, 2018). Similar fatality-related trends have also been observed in Nigeria with tetanus still contributing about 0.5% of neonatal deaths despite recommendation and administration of TTCV in antenatal centres (Odejimi et al., 2022). The WHO reported low uptake of TTCV contributes to neonatal deaths in Nigeria, falling behind in the global target of at least 80% coverage of women of reproductive age (WRA) with TTCV (Kanu et al., 2022, WHO, 2019).

Considering the persistent burden of vaccine-preventable neonatal deaths across the globe, primary prevention initiatives play a vital role. As a global response to the continuing numbers of vaccine-preventable diseases, including tetanus infectious diseases, the WHO has set a global target to reduce neonatal deaths to a maximum of 12 per 1000 livebirths across all countries by 2030 (WHO, 2022). All countries that have achieved MNTE status with particular attention to the 12 remaining high risk countries working towards elimination, including Nigeria are encouraged to follow a strategic guide (WHO, 2019). In this guide, the WHO (2019) emphasises the need for adequate vaccination of pregnant women with TTCV as a central strategy in: i) achieving protection at birth for neonates ii) reducing the risk of contracting tetanus disease iii) reducing the severity of infection and to iv) offer life-long protection for much of childbearing age and adulthood.

The WHO (2018) has described tetanus as a serious illness contracted through exposure to the spores of *Clostridium tetani* bacteria which are found in soils, saliva, dusts, and manure. The entry points of this bacterial infection into the body include deep cuts, wounds, or burns and produce toxins that impair the central nervous system leading to painful muscle contractions, particularly of the jaw and neck muscle, commonly termed as 'lockjaw'. To reduce the risk of contracting tetanus disease or reduce the severity of the infection, vaccines are proven to be the most effective intervention (Abu-Raya et al., 2020, Marshall et al., 2016, Amirthalingam et al., 2014). The primary aim of recommending complete TTCV to pregnant women is to ensure maximum level of protection against a disease that is not spread from person to person but through spores that are commonly present in the environment, including the soil as well as increase women's level of protection as each dose counts towards duration of protection (WHO, 2019, WHO, 2018). The means to achieving continued vaccination to

completion is through a multifaceted and multidisciplinary approach addressing the complexity of the practice of adequate vaccination (Habersaat and Jackson, 2020, Brewer et al., 2017).

Robust evidence demonstrates adequate tetanus vaccination of women from pregnancy to completion after the child is born is effective in: i) reducing neonatal mortality from neonatal tetanus by 94%, ii) increasing the chance of health care experiences in formal centres for women mostly in low and middle-income countries (LMIC) as well as iii) improving the quality of life of families (Kanu et al., 2022, Rodrigues and Plotkin, 2020, Blencowe et al., 2010). Despite these recognised benefits, rates of vaccination during pregnancy to completion is relatively poor in most 'high priority countries'. For example, only 2.4% to 14.8% of women in Sudan and Somali region of Eastern Ethiopia respectively complete the recommended five doses of TTCV (Sabahelzain et al., 2021, Gebremedhin et al., 2020). Mehanna et al. (2020) carried out an assessment of knowledge and health beliefs of WRA of tetanus vaccination in Alexandria, Egypt and found that just 3.6% of the women were aware of number of recommended TTCV doses and only 0.43% of the respondents had received five doses of TTCV within the space of their previous pregnancies.

Several surveys carried out in Europe report underutilisation of vaccines recommended to pregnant women, but also highlighted the challenge of women of identifying the particular vaccines expected to be used (D'Alessandro et al., 2018). A recent exploration into women's awareness and perceptions of maternal vaccination in five European countries, namely France, Germany, Spain, Italy, and the United Kingdom reported low uptake of recommended vaccines during pregnancy. In their report, a large number of women were found to be unaware of vaccines that are used during pregnancy with many attributing their unawareness to lack of recommendations from their doctors (Karafillakis et al., 2021). A comprehensive review of 37 European countries that have introduced vaccination into their antenatal programme revealed the challenge of recommendation by health professionals. They identify recommendation as the cause of the significant differences in vaccination programs of different countries in terms of the number of recommended doses, indications, and timing of doses (Maltezou et al., 2021). A narrative review by Abu-Raya et al. (2020) also found a lack of knowledge of vaccine recommendation as the most important barrier for both health professionals and pregnant women in both high-income and low-middle-income countries, with healthcare professionals having little experience of vaccines and therefore, not recommending it to pregnant women. The most commonly cited barriers to health professionals recommendation and pregnant women's low uptake include trust, safety of the vaccine, inadequate knowledge of the vaccine, underestimation of risks of contracting vaccine preventable diseases (VPDs) and doubt of the authenticity of published and existing data

(Kassianos et al., 2018, Sundaram et al., 2018, Knowler et al., 2018, Vila - Candel et al., 2016, Maertens et al., 2016, Wong et al., 2015).

Although pregnant women and health professionals may face different challenges regarding vaccination (Munoz, 2018, Wilson et al., 2015), pregnant women feel the caring responsibility to protect a growing fetus play a major role in routine vaccination during pregnancy (Maisa et al., 2018, Meharry et al., 2013). Studies have reported participation in vaccination during pregnancy is largely the responsibility of pregnant women rather than health professionals. Their reports showed most pregnant women's vaccination decision relied on their personal views and the views of the people they trust which may or not include health professionals. The most frequently reported reasons for women's use or not of vaccines during pregnancy were community rumours, cultural values, personal views, their perception of benefits and risks and opinions of family members (Simas et al., 2021, Larson Williams et al., 2018, Lohiniva et al., 2014, Meharry et al., 2013). In addition, numerous research studies in tetanus prone countries identified the critical factor that leads to inadequate use of TTCV is the lack and frequency of seeking skilled antenatal care (Amin et al., 2022, Mohamed and Ahmed, 2022, Liyew and Ayalew, 2021, Iqbal et al., 2020, Vouking et al., 2017, Pathirana et al., 2015, Haile et al., 2013). A recent survey of 31 sub-Saharan (SSA) countries on utilisation of antenatal care found that only between 35% - 53% of pregnant women seek skilled antenatal care with two to four visits throughout the period of pregnancy compared to 80% attendance required to achieve adequate protection of neonates at birth (Adedokun and Yaya, 2020).

Although the knowledge of the pregnant women's responsibility for vaccination with TTCV during pregnancy has been established for as long as TTCV has been introduced, there is still a scarcity of research that utilises a constructivist perspective to explore the reasons behind this deficit. As shown by Faria et al. (2021), of the 31 studies included in their meta-analysis that exclusively explored TTCV use by pregnant women, most of the studies were informed by observational approach. Most studies on adequate use of TTCV rarely seek pregnant women's meaning of their vaccination experiences. This omission suggests a research tendency of generalising pregnant women's experiences, specific meaning and needs, hence, presuming that "women know the benefits and importance related to immunisation" (Faria et al., 2021:49). Helps et al. (2019) and Wheelock et al. (2014) in their work also highlight concern for exploring vaccination experience from the perspectives of those who use it.

There are many studies of vaccination experiences that compare the outcome of vaccination decision based on personal accountability and responsibility to less frequently recognised societal organisation and the numerous structures and ideologies that inform such experience. Recent studies recognise general health practices as integrated in lifestyle, varying over life

course and across places to reflect a dialectic between structure and agency situating individuals in context (Short and Mollborn, 2015). This situation appears to indicate that health practices researchers tend to dismiss, or at least ignore the complexity of how the use of TTCV is socially and culturally constructed and its implication for health. Dressler et al. (2005) suggest a constructivist perspective is effective for understanding mundane activities, how the goals and aspiration that structure day to day social interactions is constructed within groups of people and how these structural constructions interact with the social structure in which they are played out. The assertion from Dressler et al. (2005) indicates that health routines of an individual are malleable and subjective to interpretation in a given context or social field. Therefore, in agreement with Helps et al. (2019) and Wheelock et al. (2014), a constructivist approach appears to be a relevant lens through which to investigate social and cultural processes that underlie pregnant women's responsibility for their health practices, including routine vaccination with TTCV.

The construction of the use of vaccines in different social fields have been demonstrated to be informed by past experiences with health system and personnel (Faria et al., 2021, John et al., 2021). Although there has been some mediating role of trust in healthcare professionals, many women are still driven by their perception of risks of the vaccine-preventable disease (Karafillakis et al., 2021, Bödeker et al., 2015). Furthermore, pregnant women are twice as likely as health professionals or vaccine recommenders to assume the responsibility of protecting the growing fetus (Lupton, 2011). Lupton (2012) and (Salmon, 2011) assert that the protective responsibility of pregnant women impacts on their health practices resulting in conformity to health 'standards' and blames in their actions or inaction.

This literature points out the higher responsibility of pregnant women in the use of TTCV than health professionals or vaccine recommenders should be explored as an issue of social construction (Dressler et al., 2005). Having reviewed some of the available research on pregnant women and routine vaccination with TTCV, I initially intended to carry out qualitative research that would aim to explore the factors that influence non-compliance of pregnant women with the complete use of recommended 5-dose TTCV in Nigeria. Such a study would have provided additional information on the factors that contribute to pregnant women's inadequate use of recommended 5-dose TTCV during pregnancy to completion after the child is born. However, during further literature searching, it became apparent that there are many studies in this area, although most are quantitative research. Surprisingly, during data collection for this study, it also became clearer that the act or practice of vaccination was not a problem. The majority of pregnant women (>90%) being recommended TTCV by health care givers, who participated in this study, actually vaccinate with TTCV with one-two doses as long as it was authorised by those they trust, used by other pregnant women and that

recommendation is of good intention. I therefore found the exploration of women's perceptions of these experiences more appropriate, focusing on the factors that inform the pregnant women's engagement with the use of TTCV in the ways that they do.

Despite the importance of complete vaccination with 5-dose TTCV in meeting MNTE to offer lifelong protection to pregnant women, there still appears to be a dearth of research addressing this area in the Nigerian context. This lack may be due to the focus of maternal immunisation programmes in Nigeria, which largely concentrates on protection at birth (PAB) of neonates, emphasising vaccination with one to three doses during pregnancy depending on when a pregnant woman initiates antenatal booking, paying less attention to the issue of completing the doses after the child is born. Research about vaccination of pregnant women with TTCV has heavily emphasised the structural and agency aspects of its uptake, little is known about the construction of TTCV within everyday social interaction, especially the idea of vaccination from pregnancy to completion (Gbadebo Adeyanju et al., 2021, Sato and Takasaki, 2021, Awosan and Hassan, 2018), There is only a small body of research that quantitatively describes pregnant women's perceptions of the lifetime protective use of TTCV, and how they attempt to complete recommended 5-doses (Imaralu et al., 2022). However, none of the studies specifically addressed the issues relating to social construction of TTCV and pregnant women's perceptions of the complete 5-dose vaccination. For this reason, I was interested in exploring the phenomenon in-depth, in order to provide some insight and evidence in this area, particularly within the Nigerian context. Gaining an understanding of how pregnant women's experience of their day-to-day life and social relations influence their construction of a recommended routine, as well as clarifying the complex and unmet needs of pregnant women with the use of TTCV, offers a more holistic insight into the appropriateness of the recommendation of vaccines to women during pregnancy. Hopefully, insights will also be gained into the ways to achieve MNTE, particularly in the Nigerian setting.

Therefore, the key objective of my study was to explore the experiences that shape the perceptions of pregnant women of TTCV use in the ways that they do in Nigeria. As far as I am aware, this study will be the first in this area of research to be conducted in the Nigerian context.

1.3 Research Aim and Questions

As already mentioned, the overall aim of this research study is to explore how pregnant women in different antenatal centres in Nigeria perceive routine vaccination with TTCV and examine factors which influence this perception.

On this basis, adopting a constructivist-informed qualitative approach, I sought to answer the following research questions:

1. How do pregnant women make the choice of the place to seek antenatal care including vaccination with TTCV?
2. How do relationships influence pregnant women's choice of antenatal care including vaccination with TTCV?
3. What do pregnant women understand of routine vaccination with TTCV?

1.4 Context of the research

In the following section, I present an overview of the research context. I begin with a description of Nigeria's geography, climate and administration, the nation's population and demographic characteristics, administration, culture, language, and religion, followed by details of Nigeria's economic profile, health status, and health delivery system.

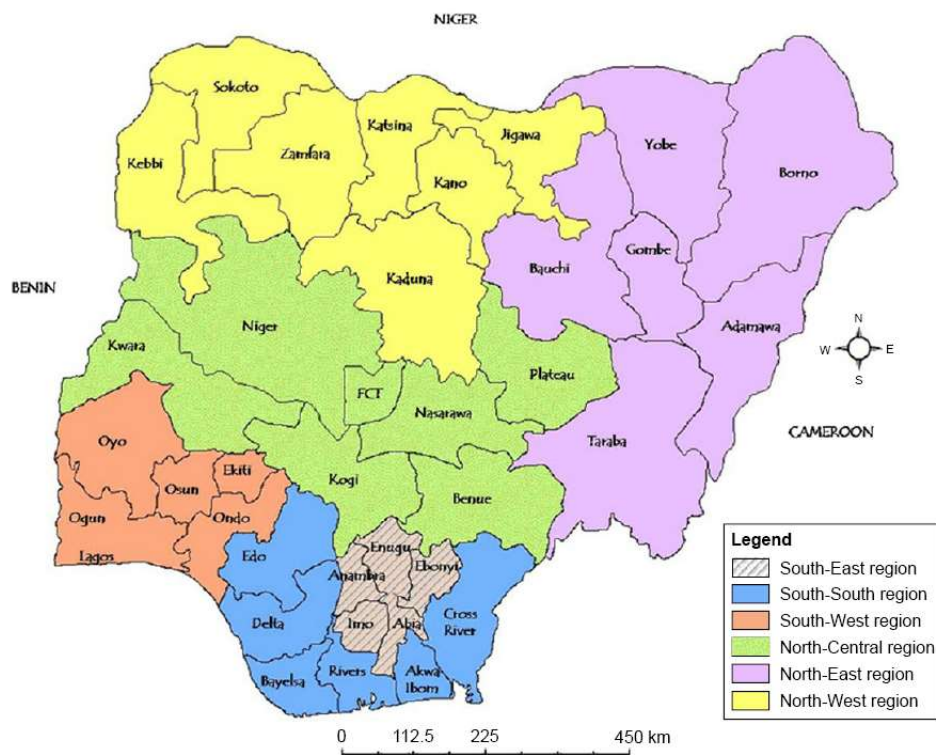


Figure 1 Map of Nigeria showing the six geopolitical zones.

Note: Reproduced from National Identity Management Commission. NIMC enrolment centres. Available from: <https://www.nimc.gov.ng/nimc-enrolment-centres/>.³²

Figure 1:1 Map of Nigeria showing the six geo-political zones.

1.4.1 Geography, Sociodemographic, and Administration in Nigeria

Nigeria, officially known as the Federal Republic of Nigeria is the most populous country in Africa and the seventh most populous in the world with an estimated population of over 196 million people. The country accounts for about 47% of Africa's population and about 2.6% of the world population (Egbetokun et al., 2022, UNDP, 2018). With a total surface area of 923, 768 square kilometres, 910, 768 square kilometres in land area and the remaining 13,000 square kilometres of eight rivers, thirteen lakes and reservoirs. Nigeria shares land borders with the Republic of Benin in the west, Chad, and Cameroun in the east and Niger in the north. The country's tropical climate is similar to those of other sub-Sahara countries (Falola, 2019). Nigeria has a beautiful and diverse climate and topography. The climate is characterised into wet and dry seasons. The wet season usually runs from April to October while the dry is usually November to March with temperature climbing as high as 40 degrees Celsius. Nigeria's landscape is marked by plains in the North, lowlands in the South and plateau and hills in the central regions (Falola, 2001).

Aligned with its large land mass area, Nigeria is noted for its cultural diversity, third in the world for diverse culture and languages. The country's culture is fractured by diverse ethnic groups, zones, and languages. Some cultural attributes in Nigeria are widespread, whereas others are shared within subgroups and are perceived valuable and unique to each society. Anyone visiting Nigeria will clearly observe a societal feature of strong family presence or links to which people belong. According to Falola (2001), family is a central institution in both rural and urban Nigeria which is emphasised through marriage. The traditional Nigerian marriage unites not only the couple, but their lineages and clans and the raising of children is perceived as a joint effort of parents, grandparents, relations and sometimes community members. This network has direct responsibility for the care of women during pregnancy and strongly determines the kind of care women seek and receive.

There are more than 250 ethnic groups across Nigeria, although three major ethnic groups dominate in terms of politics and numbers. The Yoruba, Igbo, and Hausa represent over 60% in the nation's total population. Statistics show over half of the population is Muslim, Christians make up about 45% with Roman Catholicism being the main branch and less than 1% practice indigenous religious traditions (Central Intelligence Agency- CIA, 2018). With regard to language, there are over 500 indigenous languages spoken in Nigeria. Nevertheless, since Nigeria's independence in 1960, English language has been the official language in the country; it is used in education, media, administration, and business affairs (Falola, 2019, Ayeomoni, 2012).

In terms of the country's administration, in 1954, Nigeria adopted a federal administration system after a consensus decision was reached between the country's nationalist leaders and the British colonial authorities. They considered the federal system suitable to keep the people united and accommodate the country's diverse ethnic groups, religion, language, and interests within one common politico-administrative entity (Adamolekun and Ayo, 1989). In constitutional terms, the organisation and structure of government in Nigeria is based on three tiers: Federal, State and Local government. There are six geopolitical zones (see Figure 1) within which are 36 states and 774 local government areas (LGAs) with Abuja being the Federal Capital Territory. The three study settings for this research are located in the South-West geopolitical zone of Nigeria.

Nigeria has one of the largest population of youth in the world with a median age of 18.1 years (National Bureau of Statistics, 2019). According to Nigeria Demographic and Health Survey, about half of the total population in Nigeria are aged 15-64 years. As can be seen in Figure 1.2, Nigeria has an expanding pyramid which is common for developing countries with high birth and death rates, and relatively short life expectancy (Nigeria Demographic and Health Survey - NDHS, 2018). However, world population projection for 2050 forecast that a growing demographic statistics will continue, marked by increasing number of population in eight countries, including Nigeria, and a smaller fraction of reproductive-age population (United Nations, 2022). As of 2018, fertility rate in Nigeria was 5.39% births per woman and females constitute 49.4% of the population, of these 51% are of reproductive age (15-49 years) and 23% of reproductive age were already mothers or pregnant with their first child (World Bank, 2019) . While the populations of male and female are not far apart, approximately 82% of households in Nigeria are headed by men (Nigeria Demographic and Health Survey - NDHS, 2018).

Nigeria ▼ 2018

Population: 196,752,840

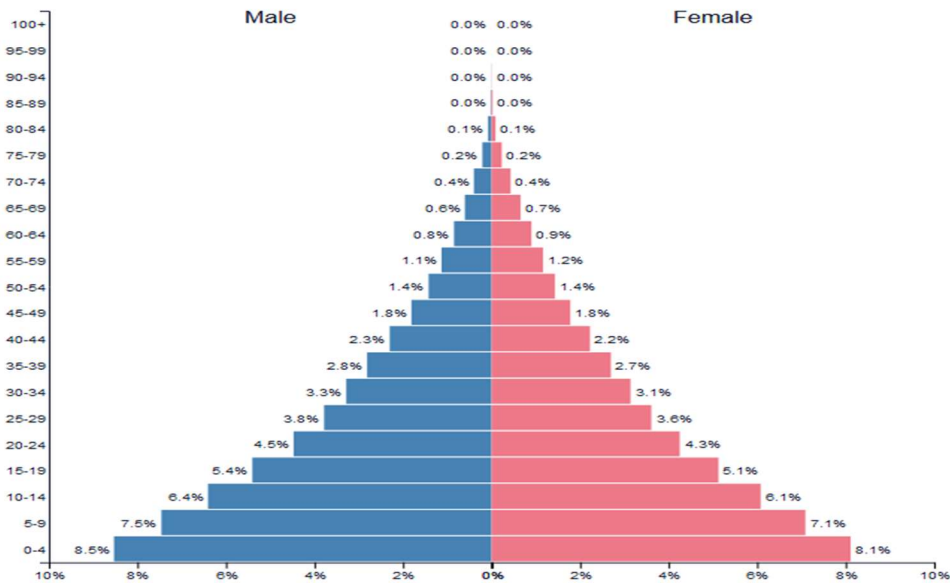


Figure 1.2 Population Pyramid of Nigeria, 2018

Source: (Nigeria Demographic and Health Survey - NDHS, 2018)

1.4.2 Nigeria's economic profile

Nigeria is a lower-middle income country (LMIC). The annual growth rate of the gross domestic product (GDP) of Nigeria averaged 2.66% over the past ten years until 2022, reaching a record high of 6.88% in 2011, and a record low of -6.10% in the second quarter of 2020 to soar into 440.776.97 billion USD in 2021, representing a 3.6% annual GDP growth (World Bank, 2022). The recent stability is driven by the non-oil sector with main contributions from technology and communications, agriculture, transportation, finance and insurance, and manufacturing. Despite some progress in 2021, inequality, in terms of income and opportunities remain high and adversely impacts efforts to reduce poverty. Over 40% (83 million) of the population live below the poverty line and the number of people living in extreme poverty is set to rise by 7.7 million in the next two years (World Bank, 2022).

Historically, since independence in 1960, the economy of Nigeria was based primarily on agriculture until the oil boom that began in the 1970s which brought about considerable changes in the economy of the country (Omorogiuwa O et al., 2014). However, that did not last, in 1977-1978, there was a surplus in the petroleum market which led to a 4% fall in crude oil price resulting in a 25% decline in petroleum product exports and consequently a decrease

in federal and state government revenues. While this had ripple effect on other sectors including agriculture, as farmers were not getting investment fund, exportation of cash crops namely rubber, oil palm, groundnut and so on served as core sources of revenue generation. The natural value of agriculture keeps the sector as one of Nigeria's viable sources of economic growth (Kamil et al., 2017). Owing to increased export from crop production being the major driver amongst other activities such as livestock, forestry, and fishing, in addition to the advantage of good weather and arable farmland for cultivation of crops and rearing of animals, agriculture remains the engine of the Nigeria's development (see figure 1.3) (Central Bank of Nigeria Report, 2019, Kamil et al., 2017).

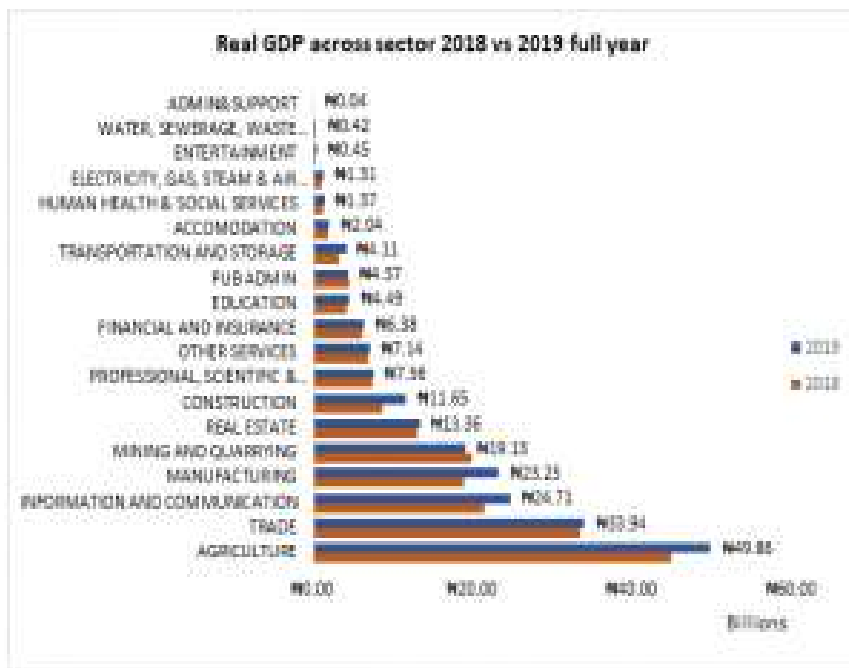


Figure 1.3 Subsectors contributing to Nigeria's GDP, 2019
 Source: Central Bank of Nigeria Economic Report, 2019

1.4.3 Nigeria's health status

Since 1990, Nigeria has made significant improvements to several health issues. For example, there has been a steady growth in life expectancy; from 44.67 to 59.51 for males and 47.19 to 63.27 years for females in 2022 (World Bank, 2022). There have also been significant decrease in the rates of infant, child, and maternal mortality (National Bureau of Statistics, 2022). In terms of reduction in infant and child mortality rates, Nigeria made considerable progress except for neonatal mortality where changes appear slow. In a ten-year survey from 2008-2018, data shows that under-five mortality rate decreased significantly from 157 to 132

per 1,000 live births. Similarly, infant mortality rate also dropped from 75 deaths per 1,000 live births in 2008 to 67 deaths per 1,000 live births in 2018. However, sadly, there was no substantial changes in neonatal mortality in the ten-year span with 40 versus 39 deaths per 1,000 live births in 2008 and 2018 respectively as illustrated in Figure 1.4 (Nigeria Demographic and Health Survey - NDHS, 2018).

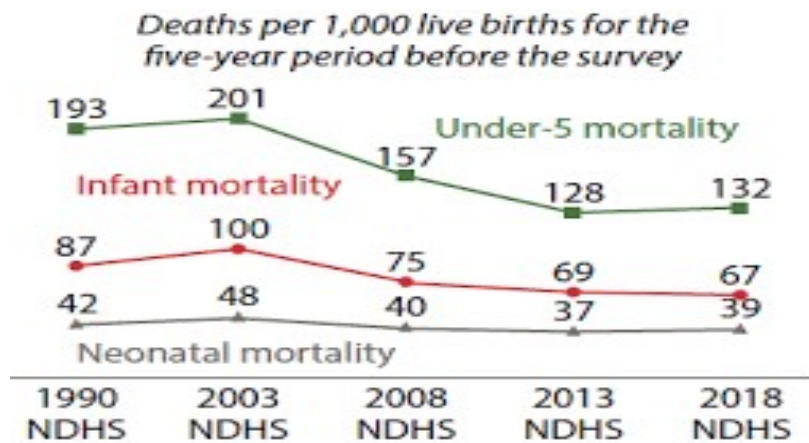


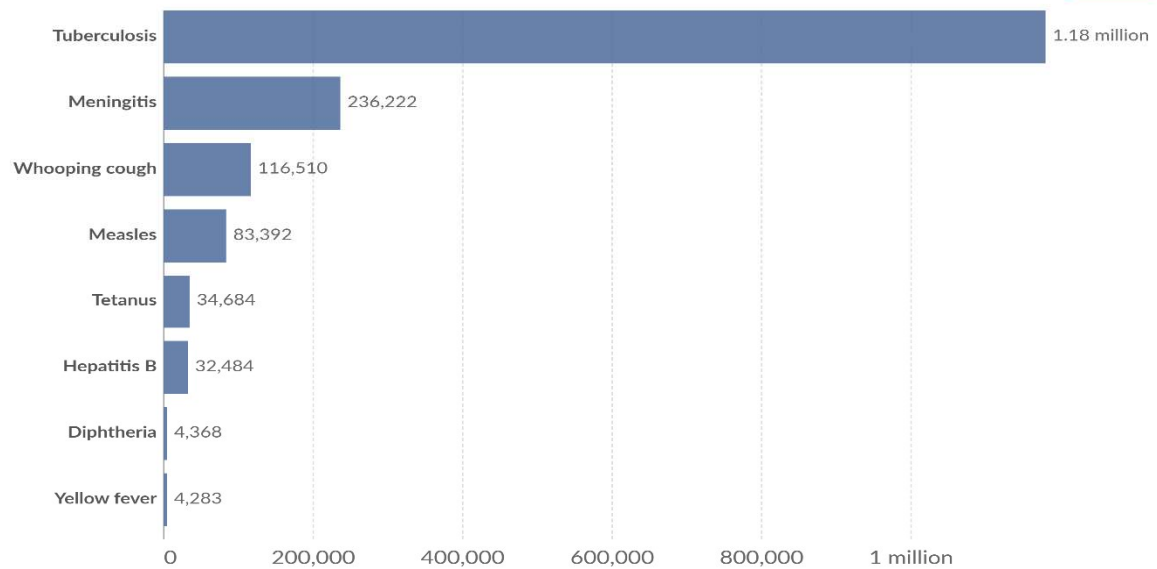
Figure 1.4 Trends in early childhood mortality rates

Source: Nigeria Demographic and Health Survey, 2018

The rate of health loss from reproductive-related conditions such as obstetric haemorrhage, hypertensive disorders and sepsis have also only slightly decreased to 39.6% (Alkema et al., 2016). As a consequence of wide socioeconomic disparities in the country, maternal and neonatal mortality rates continue to be a serious problem in Nigeria with maternal deaths of 576 per 100 000 live births, fourth highest in the world (UNICEF, 2018). While the country still struggles with the burden of non-communicable diseases, Nigeria is faced with the persistence of vaccine-preventable diseases among children (Odejimi et al., 2022). Based on data from the Institute for Health Metrics and Evaluation (IHME), (IHME; Global Burden of Diseases, 2019), tetanus infection continues to be one of the first five leading causes of vaccine-preventable deaths in the world contributing to about 0.4% of neonatal deaths in Nigeria (Odejimi et al., 2022), (see Figures 1.5 and 1.6).

Deaths caused by vaccine-preventable diseases, World, 2019

Our World in Data



Source: IHME, Global Burden of Disease (2019)

OurWorldInData.org/vaccination/ • CC BY

Figure 1.5 Deaths caused by vaccine-preventable diseases

Source: (IHME; Global Burden of Diseases, 2019)

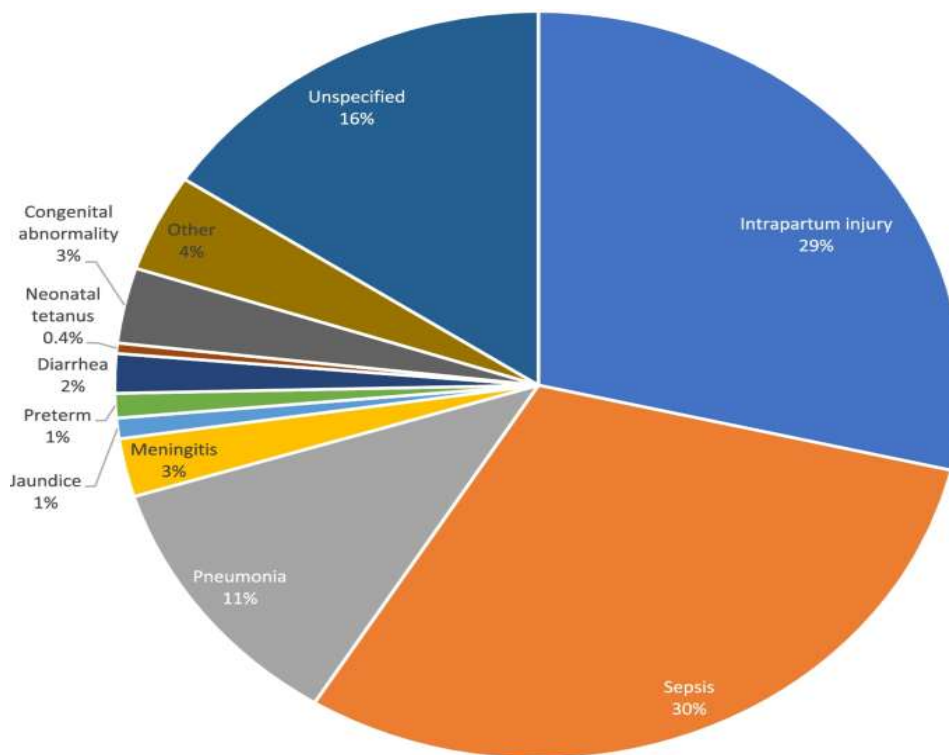


Figure 1.6 Causes of neonatal deaths in Nigeria

Source: (Odejimi et al., 2022).

In 2019, the top leading causes of neonatal admissions in tertiary hospitals in Nigeria were neonatal sepsis, prematurity, severe birth asphyxia, neonatal jaundice, and neonatal tetanus (Also and Gwarzo, 2020). Rates of neonatal tetanus, that is, tetanus infection within the first 28 days of life, has shown to be underreported mainly because most affected neonates rarely have contact with health facilities as a result of their mother's unskilled antenatal and delivery history, low maternal literacy and socioeconomic status (Ogundare et al., 2021).

1.4.4 Neonatal tetanus infection in Nigeria

Despite the downward trend of mortality rates attributed to tetanus infection in developed countries since the global MNTE targets of 2000, 2005, 2015 and 2020, there has been a persistent trend of tetanus infection in developing countries (WHO, 2021). MNTE is defined by the WHO as having less than one case of neonatal tetanus per 1000 livebirths in every district annually (WHO, 2018). The Nigeria Demographic and Health Surveys revealed preventable contact with tetanus infection is responsible for 4% of neonatal deaths in the country and roughly two-thirds of the global burden of neonatal tetanus infection (Nigeria Demographic and Health Survey - NDHS, 2018, Uleanya, 2018, Nigeria Demographic and Health Survey, 2013). While in 1998, tetanus infection was listed as the second leading cause of neonatal deaths world-wide and combated with hygienic delivery and vaccination, tetanus infection has occupied the leading cause of neonatal mortality in non-compliant countries including Nigeria (Yusuf et al., 2022, WHO, 2019).

In addition to high morbidity and mortality rates, the relatively early onset of tetanus infection and delayed care seeking has been associated with underreporting of tetanus infection and concern for global elimination (Uleanya, 2018, Lambo et al., 2011). Based on review analyses of community surveys on neonatal mortality in 17 countries of 4 WHO regions, only about 2%-5% of the estimated number of tetanus cases were reported and a retrospective household survey was found to yield more realistic number of deaths.(Stanfield and Galazka, 1984). Research suggests characteristics of the chance of recovery from tetanus infection have been the major determinants of reporting this disease condition (Lambo et al., 2011). Delay in presentation in hospital in Nigeria is common with most developing countries struggling with MNTE (WHO, 2019). However, surveillance of accurate incidence recording of neonatal tetanus has not been adequate in Nigeria (Nass et al., 2017). Nigeria is one of the two West African countries that has not fully eliminated MNTE mostly due to their struggle with adequate surveillance (WHO, 2022). In addition, birth sites have also been identified as another major risk for neonatal tetanus in Nigeria (Nigeria Demographic and Health Survey - NDHS, 2018). In response to the significant delay in eliminating neonatal tetanus infection, the government recently introduced a 10-year strategic framework (NIGERIA STRATEGY FOR

IMMUNISATION AND PHC SYSTEM STRENGTHENING [NSIPSS], 2018-2028), to improve tetanus toxoid vaccination, neonatal tetanus prevention and complete risk analysis of local government areas (LGAs) performance throughout the country. Additional efforts such as 3 rounds of TTCV campaigns and a post-campaign coverage survey in all LGAs were implemented with the aim to minimise the burden of this highly preventable infection.

In the Nigeria Demographic and Health Survey report 2018, the proportion of mothers whose delivery took place in health facility only increased from 35% to 39% over a period of ten years (2008-2018) (see Figure 1.7). Although there is a downward trend of home/non-hospital delivery, the number of deliveries in places that put neonates at risk of infection and where both mother and child may not get help that they need when complications arise is indicated to be high. Antenatal care is considered an optimal platform to deliver lifesaving maternal interventions such as vaccination with TTCV, however, only 67% of women received at least four antenatal care appointments from which about 62% received two protective doses of TTCV, way less than 80% required by WHO for MNTE (Nigeria Demographic and Health Survey - NDHS, 2018, WHO, 2019). The MNTE indicators for achieving MNTE include but are not limited to vaccinating at least 80% of pregnant women with at least two doses of TTCV and at least 70% of pregnant women having access to skilled birth (WHO, 2019). The data shows that the risk for neonatal tetanus infection is high with non-health facility delivery, and more needs to be done regarding TTCV coverage for MNTE to be achieved. Furthermore, neonatal tetanus fatalities and other complications from non-health facility delivery may not be reported except with adequate surveillance.

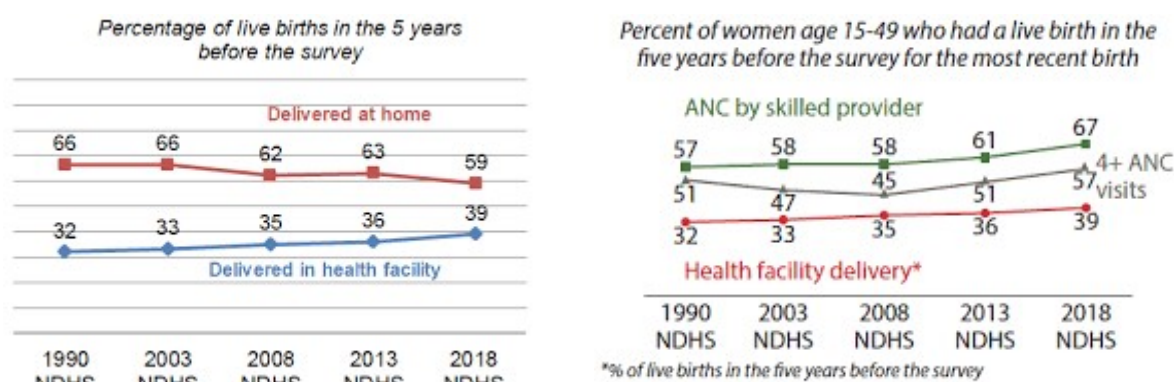


Figure 1.7 Trends in health facility delivery and ANC visits
Source: Nigeria Demographic and Health Survey, 2018

1.4.5 Healthcare delivery system

1.4.5.1 Organisation

Following the adoption of a federal system in Nigeria, the central administration of healthcare services and the control of health services was transferred to each tier of government - federal, state and local governments under the supervision of ministers, commissioner, and a primary healthcare (PHC) coordinator respectively (Adeyemo, 2005). However, prior to the introduction of a formal system of care, traditional medicine was predominant. It is defined as “the total combination of knowledge and practices, whether explicable or not, used in diagnosing, preventing or eliminating physical, mental or social diseases and which may rely exclusively on past experience and observation handed down from generation to generation, verbally or in writing” (Traditional Medicine Policy for Nigeria, 2007:5). This traditional form of care was found to be used by many people for a combination of factors such as i) accessibility, ii) affordability, and iii) acceptability (Sulayman and Adaji, 2019, Adefolaju, 2014). For these reasons, the Federal Government of Nigeria through the Federal Ministry of Health (FMOH) in collaboration with the WHO under the leadership of Prof. E. Lambo established the Nigerian Traditional Medicine Policy (Traditional Medicine Policy for Nigeria, 2007). The aim of the policy was to integrate and foster partnership between informal and formal care and institutionalise traditional medicine along conventional healthcare delivery in Nigeria (Traditional Medicine Policy for Nigeria, 2007). The organisation of the health system in Nigeria can be seen in figure 1.8.

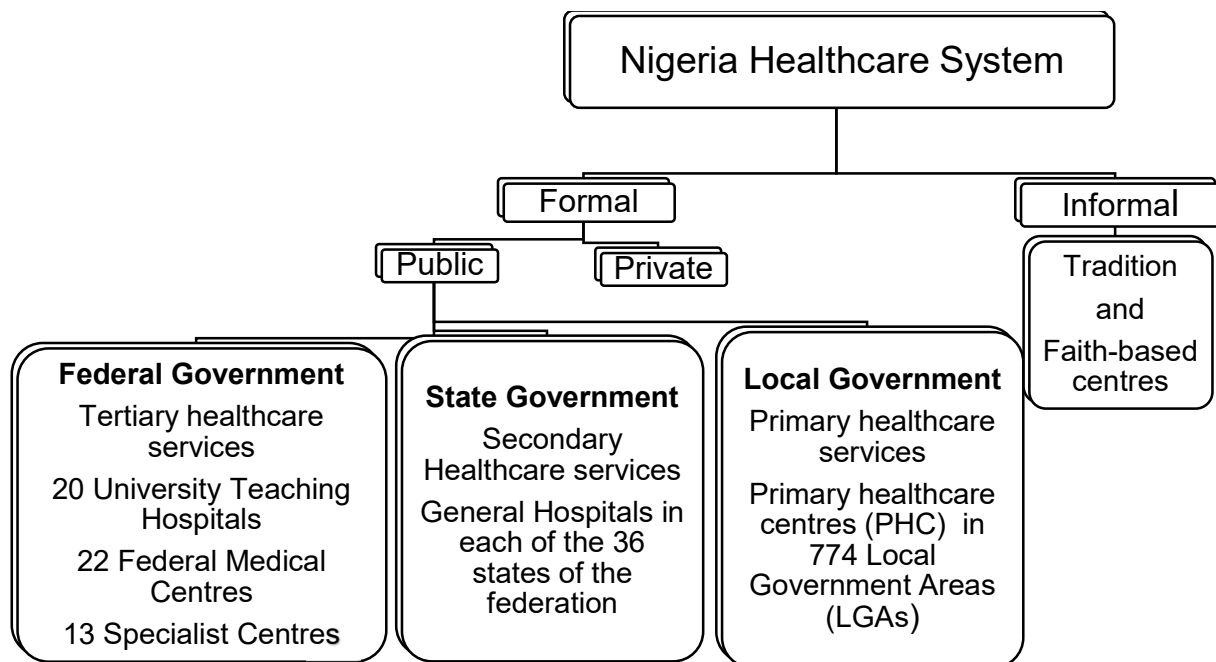


Figure 1.8 Organisation of health system in Nigeria

Nigeria's 2014 National Health Act provides the legal framework for regulation, development, and management of the three levels of administration in the public healthcare system mentioned above. The federal-level hospitals provide advanced form of care which usually includes referrals from state-level hospitals while the state hospitals provide secondary form of care which includes referral from primary health centres (Federal Ministry of Health, 2016). Nevertheless, the relationship between the local government, state and federal is hierarchical and nonautonomous; meaning the functioning of local government depends on the state government arrangement and the state government relies on the federal government in delivery, management, and financing (Ajisehiri et al., 2021, Federal Ministry of Health, 2019).

The provision of basic and primary health needs in Nigeria has been constrained over the years by the inter-governmental arrangement. The condition has driven the health system towards private, alternative, and traditional care providers to bridge the gap, resulting in an increase in the number of private hospitals, alternate care, and generally out-of-pocket services. The private sector consists of specialist and teaching hospitals, general practitioners, clinics, laboratories, registered pharmacies, patent medicine vendors, tradition and faith-based centres and they provide about 65% of healthcare in the country (Abubakar et al., 2022, Omoluabi, 2014, Welcome, 2011).

1.4.5.2 Manpower

Over the last decade, there has been a significant deficit in the number of health workers in Nigeria, as indicated by the decreasing ratio of health workers to the population (Adeloye et al., 2017). The trend of four different health practitioner populations in Nigeria throughout 2003-2018 are presented in Table 1.1. The main categories of health practitioners in Nigeria are doctors, nurses/midwives, dentists, pharmacists, and other allied health workers. Although there has been an upward trend for the ratio of nurses/midwives per population in 2016, by 2018, the numbers are still below the ideal ratio of 40 per 10 000 population recommended by the WHO.

Table 1.1 Health practitioners in Nigeria per 10 000 population

Indicators	2003	2013	2016	2018
Doctors	2.65	3.83	4.49	3.81
Nurses and midwives	15.94	10.26	17.55	9.26
Dentists	0.19	0.53	0.22	0.22
Pharmacists	0.47	0.95	1.11	1.26

Source: WHO Global Health Workforce (WHO, 2022)

As in other countries, in Nigeria, the number of nurses/midwives provide the largest health workforce, with a total of 180 709 nurses and 120 870 midwives in 2019 (WHO, 2022). However, Nigeria is still experiencing a shortage of nurses and midwives at both hospitals and primary care levels with report of an estimated shortage of 10 293 nurses/midwives in 2016 (Aluko et al., 2019, Adeloye et al., 2017, Adebayo et al., 2016). Corresponding with other health practitioners' ratio per population, the ratio of nurses/midwives is low for a growing population such as Nigeria. Some of the factors that have been identified to be responsible for this are rapid population growth, poor staff welfare and retention, international migration, weak governance, poor infrastructure, and career change (Adeloye et al., 2017).

1.4.5.3 Health financing

Healthcare in Nigeria is financed through allocation of funds from the country's budget, donor funding such as grants from international organisations, national health insurance scheme (NHIS) and private funding. Regarding private funding, total health expenditures have registered a dramatic increase for many decades with private expenditure accounting for two-thirds of all health spending in the form of out-of-pocket expenditure. For example, the average out-of-pocket spending on health between 1995 and 2014 was 67% reaching 70% in 2014, imposing more economic hardship in a country of 40% living in poverty (Abubakar et al., 2022). In an attempt to address this issue, in 1999, the federal government introduced the NHIS designed mainly as a social tool to attain health service equity which operate through guaranteed pool of funds and risk sharing arrangement between participants of the scheme (Christina et al., 2014). However, two decades later, less than 10% of the population are reported to be covered under the NHIS scheme, most of whom are federal government workers. Furthermore, the government's contribution and budgetary allocation towards health has been reported to be lower than the 15% commitment declared by the government with only 4% allocated to health in 2018 (Abubakar et al., 2022, Christina et al., 2014). As far as health financing is concerned in Nigeria, the present administration in Nigeria under the leadership of President Muhammadu Buhari has signed a new health insurance bill called 'Nigeria's National Health Insurance Authority Bill 2022'. Under the new law, all Nigerians and legal residents are mandated to get health insurance through public and private sector participation as opposed to the NHIS which enlisted mainly government workers that left the majority of the population uninsured (Adepoju, 2022). This may lower the burden of health cost and improve access to quality and skilled health care for all, including mothers and their neonates.

1.5 Structure of the thesis

This thesis includes eight chapters.

Chapter 1 provides background information to set the scene. The research aim and questions with an outline of the development of my interest in studying pregnant women's perceptions of the use of TTCV is presented. This chapter also provides the general background information relevant to the study context of Nigeria: focusing on the nation's geography and sociodemographic characteristics, economic profile, health status and healthcare delivery system.

Chapter 2 provides a critical analysis of existing literature related to the vaccination of pregnant women with TTCV as well as the theoretical perspective underpinning the thesis.

Chapter 3 presents the research methodology and methodological issues related to exploring the experiences that shape the perceptions of pregnant women of the use of TTCV. Important points relating to ethical issues, reflexivity, and trustworthiness are also presented. This is done using a qualitative interpretative approach of interviewing the pregnant women.

Chapters 4, 5, and 6 present the findings using the work of Pierre Bourdieu in the analysis and presentation. In chapter 4, I present themes and subthemes identified from analysing data related to the pregnant women's preference for the place to seek antenatal care and the extent to which the pregnant women were involved in their decisions. In chapter 5, I present themes and subthemes related to relational influences on their preferred antenatal centres where they engaged in vaccination with TTCV - relationship within and outside of the antenatal centres, while in chapter 6, I present themes and subthemes related to how pregnant women 'played by the rules' in their preferred antenatal centres with the use of TTCV.

Chapter 7 provides an overarching discussion of the findings, by highlighting how Bourdieu's concepts of practice, field, habitus, and capital permeate through the discussion and helps to explore issues from both the antenatal centres and vaccination practice of pregnant women. It also provides the implications and recommendations for practice, future studies, education, and policy.

Chapter 8 presents the conclusion of this PhD research with a discussion focused on the summary of the study, as well as the study's contribution to knowledge.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL PERSPECTIVE

2.1 Introduction

In the previous chapter, I described the background of my study and presented information about the study context – Nigeria. In this chapter, I critically analyse literature in relation to factors influencing pregnant women’s experiences of the use of TTCV. Braun and Clarke (2013) noted that a review of the literature in qualitative research sets to ‘make a case’ for a research project on the basis of gaps and inadequacies in what we currently know of a topic. Therefore, this literature review focuses on what exists about this topic in the literature that makes it important to further investigate.

The two major sections that the literature review will focus on are - 1) an overview of the literature related to the factors that influence vaccination experiences of pregnant women with TTCV and, 2) the theoretical perspective which provides the basis for this thesis. The review will include a brief history of vaccination of pregnant women with TTCV including global and Nigeria vaccination schedules for all pregnant women. This is followed by a discussion on the perspectives on the global, regional, and local vaccination experiences of pregnant women. Following that, an overview of the performance of antenatal centres and the factors that influence routine vaccination in these centres globally and in the Nigerian context are presented. Finally, the last part of the review will focus on the theoretical perspective informing this research - Pierre Bourdieu’s *Theory of Practice* (Bourdieu, 1990, Bourdieu, 1977).

2.2 Literature search strategies

The primary sources of the literature search were electronic databases, and these included Cumulative Index to Nursing and Allied Health Literature (CINAHL) Plus, Global Health, MEDLINE Plus, PsycINFO, DiscoverEd, PubMed and Google Scholar. The search terms were ‘pregnant women’ OR ‘expectant mothers’ AND ‘routine vaccination’ OR ‘recommended vaccination’ AND ‘perceptions’ OR ‘views’ AND ‘vaccination experiences’ OR ‘routine vaccination practices’ AND ‘tetanus toxoid containing vaccine’ OR ‘routine tetanus vaccination’ AND ‘antenatal care’ OR ‘antenatal routines’. These terms were identified as relevant following a general review of related literature, discussions with supervisors and expert academics in the field.

In addition, the electronic search was supplemented with a manual search of the reference lists of retrieved articles. In order to increase the breadth of the review, the websites of international and local organisations were also consulted. These websites provided current and valuable information in regard to recommended vaccines for pregnant women as well as antenatal care routines and services for women of reproductive age. The websites include the WHO, United Nations Children's Emergency Funds (UNICEF), and the website of the Federal Republic of Nigeria. Within this, several guidelines and policies related to recommended vaccines for pregnant women were searched and included in the review.

Only articles, reports and books published in English language were included and they comprised full text journal articles, systematic reviews and meta-synthesis, research reports related to pregnant women and vaccination practices, global, regional, and national tetanus vaccination reports, global and national vaccination schedule for pregnant women and other relevant digital theses. Most of the sources presented in the literature review were from UK, Europe, North America, Australia, south Asia, and Africa.

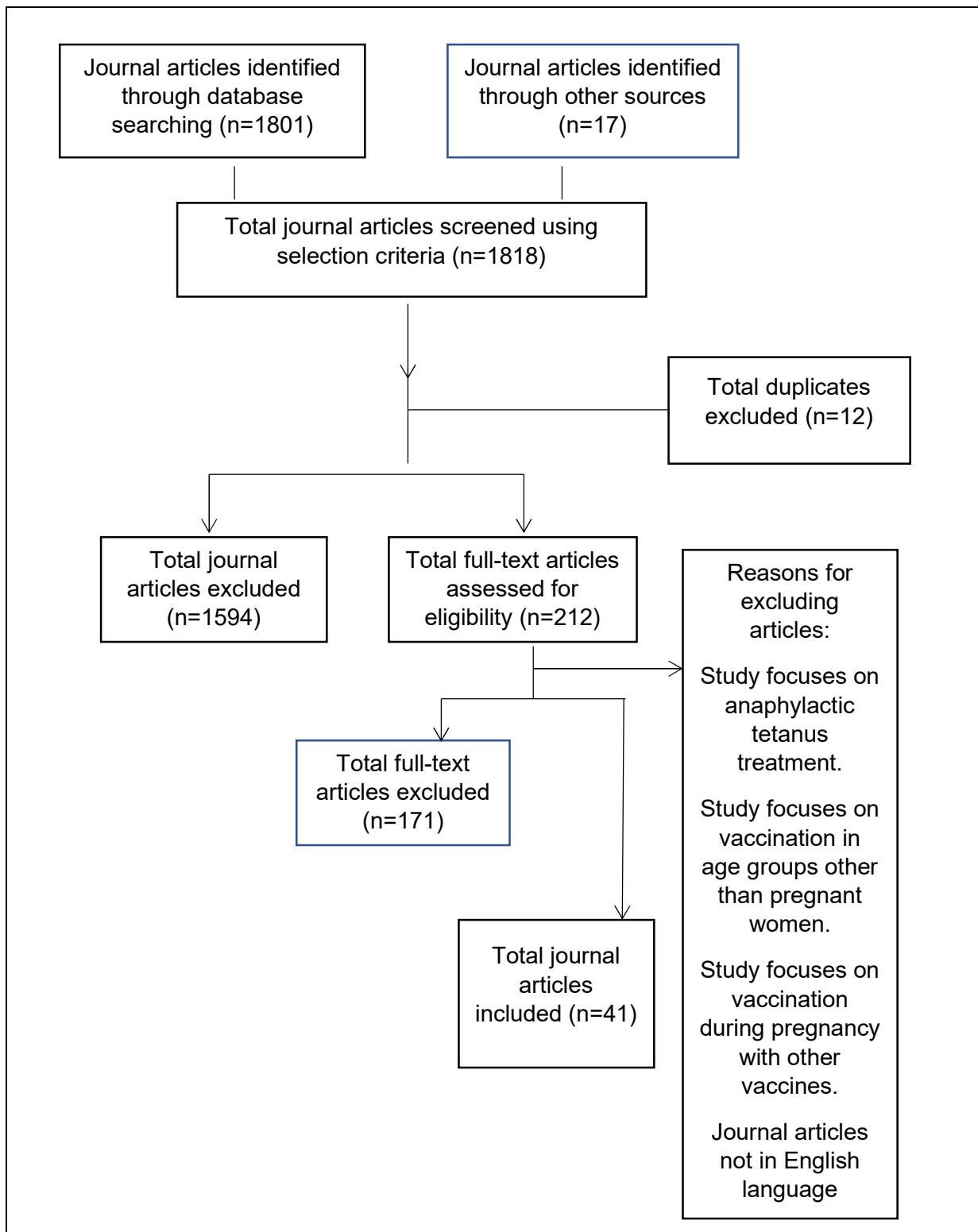


Figure 2.1: Flow diagram of the literature search outcome

2.3 History of TTCV

I begin the literature review with a narrative account of how vaccination of pregnant women was discovered to be helpful in protecting children in their first 28 days of life. Following that, I will also present the global vaccination schedules and vaccination schedules for pregnant women in Nigeria.

2.3.1 History and vaccination schedules for pregnant women

The history around the passive immunity infants gain from mothers is one that started with the recognition of infants' resistance to tetanus infection in their first month of life. This was discovered in the twentieth century when resistance to tetanus infection was associated with transplacental transfer of maternal antibodies in-utero (McKhann and Chu, 1933, Ratner and Greenburgh, 1932). Further to that, an observational study in 1961-1966 showed that infants of mothers who received about three doses of TTCV survived tetanus disease while 7.8% deaths occurred among infants whose mothers did not (Newell et al., 1966). This led to the recommendation of TTCV for pregnant and childbearing age women in the late 1960s, an initiative of the WHO that recorded 93% reduction in neonatal tetanus-related deaths a decade later (Fischer et al., 1997, Newell et al., 1966).

Since that period, the WHO's guidelines for the recommendation of TTCV are reviewed at least every five years. TTCV has evolved from single to combination vaccine known as tetanus diphtheria (Td) and tetanus, diphtheria, and acellular pertussis (Tdap). This development helps protect against multiple diseases as well as to reduce the number of injections needed. The WHO and UNICEF (2018) through a joint communique urged countries to complete the process of replacing TTCV with Tdap and Td. This was in response to the rising number of diphtheria outbreak, and it is suggested to contribute to the reduction of diphtheria morbidity and mortality with negligible financial implications (WHO and UNICEF, 2018, ACIP, 2011). Currently, five doses of TTCV are recommended for pregnant women depending on their vaccination status (see vaccination schedule in table 2.1). Receiving the complete vaccination is considered safe for use in pregnancy and ensures protection against maternal and neonatal tetanus, diphtheria, and acellular pertussis (Arora and Lakshmi, 2021).

Table 2.1 TTCV vaccination schedule for WRA and pregnant women with unknown vaccination status or without previous exposure to TTCV

Dose of TTCV	When to give	Expected duration of protection	Level of protection
TTCV 1	At first contact or as early in pregnancy as possible	None	None
TTCV 2	At least 4 weeks after TTCV1 (at the latest 2 weeks prior to birth)	1-3 years	65%
TTCV 3	At least 6 months after TTCV2, or during subsequent pregnancy	At least 5 years	94%
TTCV 4	At least 1 year after TTCV3, or during subsequent pregnancy	At least 10 years	
TTCV 5	At least 1 year after TTCV4, or during subsequent pregnancy	For all childbearing age and much of adulthood	Lifelong protection

Source: Protecting all against tetanus: guide to sustaining maternal and neonatal tetanus elimination (MNTE) and broadening tetanus protection for all populations (WHO, 2019) and Tetanus vaccines: WHO position paper – February 2017 (WHO, 2017)

Furthermore, the Advisory Committee on Immunization Practices (ACIP), a group of experts that develop recommendations on how to use vaccines recommend influenza vaccination to all pregnant women regardless of the stage of the pregnancy or trimester (Harper et al., 2005). This followed a pandemic outbreak in 2003-2004 that affected many pregnant women (Rogers et al., 2010, Jones et al., 2004). Before then, only pregnant women with underlying conditions received influenza vaccination, and they had it after first trimester to prevent coincidental association of the vaccine with possible first trimester spontaneous abortion (ACIP, 1990). Following evidence-based research, discoveries evolved, and the influenza vaccine was extended to all pregnant women in their third trimester and was then later discovered safe in all trimesters of pregnancy.

Currently, routine antenatal care in most countries includes ACIP recommendation of TTCV, tetanus diphtheria (Td) or tetanus diphtheria acellular pertussis (Tdap) and Influenza vaccines. This has been established on clear benefits of vaccines as they offer protection to mothers and infants and reduce risks of infection (Rasmussen et al., 2013). In high risk areas, exposure of pregnant women to other VPDs such as hepatitis A and B as well as meningococcal vaccines may be considered (Keller-Stanislawski et al., 2014). More vaccines such as group B streptococcus and respiratory syncytial virus vaccines are under clinical development to prevent serious infections in infants (Giles et al., 2019). See Table 2.2 for a summary of all vaccines recommended to pregnant women depending on the risk of a population to certain diseases.

Table 2.2 Summary of vaccines recommended to all pregnant women

Generally recommended	Recommended in certain population and disease
Tetanus toxoid, reduced diphtheria toxoid and acellular pertussis (Tdap)	Pneumococcal
Influenza	Meningococcal
Tetanus toxoid and reduced diphtheria (Td)	Hepatitis A
	Hepatitis B

Source:(CDC, 2017)

In Nigeria, it is recommended that pregnant women receive three doses of TTCV or Td during the period of pregnancy, followed by the fourth and fifth doses within two years of delivery. However, if a woman is pregnant again within the two years of the previous pregnancy and has a record of vaccination, she continues with her schedule as seen in table 2.1. Complete tetanus vaccination offers passive protection of neonates against neonatal tetanus as well as lifelong protection to childbearing aged women.



Nigerian National Immunization Schedule for Pregnant Women and Women of Childbearing Age

Tetanus Diphtheria (Td) Vaccine		
Tetanus Diphtheria (Td) vaccine protects against tetanus and diphtheria		
VACCINE	WHEN TO RECEIVE THE VACCINE	EXPECTED DURATION OF PROTECTION
Td 1	At first contact or as early as possible in pregnancy	None
Td 2	At least 4 weeks after Td 1	1-3 years
Td 3	At least 6 months after Td 2 or during subsequent pregnancy within 3 years	5 years
Td 4	At least 1 year after Td 3 or during subsequent pregnancy	10 years
Td 5	At least 1 year after Td 4 or during subsequent pregnancy	All the childbearing years

Vaccinated communities; Healthy communities!

Visit any government health center to complete your Child's immunization NOW

Figure 2.2 Td Vaccination Schedule in Nigeria
Source: UNICEF Nigeria, 2018

2.4 Perspectives on vaccination experiences of pregnant women

In the previous section, I began the literature review chapter by narrating the history of the recommendation of TTCV to pregnant women including the global vaccination schedules and vaccination schedule for pregnant women in Nigeria.

This section will review the empirical literature on the vaccination experiences of pregnant women in general. This includes the global perspectives on vaccination decision which is the foundation of the experiences of pregnant women of vaccination. Following that, I will discuss the vaccination experiences of pregnant women in sub-Saharan Africa and the pattern of routine tetanus vaccination practice in the study setting, Nigeria.

2.4.1 Global perspectives on vaccination decisions of pregnant women

In most parts of the world, research evidence indicates pregnant women delay the decision whether to accept or refuse to vaccinate despite availability of the vaccine and vaccination services (Qiu et al., 2021, Kilich et al., 2020, Wilson et al., 2016, Peretti-Watel et al., 2015,

Wilson et al., 2015, Larson et al., 2014). Fuss et al. (2022) identified the important feature of the motivation of pregnant women on whether to vaccinate and the distinct source of vaccination information serve as the basis for establishing their individual interest in vaccination. Pregnant women are generally concerned with the safety of the growing fetus and are motivated by trusted information to guide them in doing so (Fuss et al., 2022, Larson et al., 2018). Larson et al. (2018) noted that vaccination acceptance by people in general is largely dependent on their trust in the product itself (vaccine), the providers, that is, professionals propagating vaccination information, and the policy makers who approve vaccines to be recommended, all of which are considered a panacea towards achieving the reproductive health aspects of the sustainable development goals (SDGs).

An estimate of nearly 1.3 billion, one-sixth of 8 billion projected world population by November 15, 2022 is comprised of reproductive age (15-49 years) women who at some point will experience whether to vaccinate which sets the course for improved life expectancy at birth (United Nations, 2022, Mehanna et al., 2020). There is also a constant negotiation of expectations and desires that occurs during pregnancy care-related experiences, including vaccination and birthing (Yuill et al., 2020, Cook and Loomis, 2012). Consequently, many pregnant women use vaccines under uncertainty, engaging vaccination during pregnancy based on perception of the highest risk (Dudley et al., 2020, Wagner et al., 2020). Several studies including the Strategic Advisory Group of Experts (SAGE) have documented that vaccination decisions are complex, and many pregnant women worldwide delay or refuse vaccination (Johm et al., 2021, Wilson et al., 2015, WHO, 2015).

Socio-cultural context, women's preferences, how they feel about their pregnancy and their perception of risks of vaccine-preventable diseases have all been found to impact on the vaccination experiences of pregnant women and pregnancy in general, whether in high-, middle- or low-income countries (Larson, 2015, O'Grady et al., 2015). These interrelated factors constitute major components of the global maternal and neonatal preventable disease burden and could be alleviated through improving women's autonomy regarding reproductive health decisions and reduce barriers to women's reproductive health rights (WHO, 2021, UNFPA, 2020). Despite the progress and positive trends in the 2000 -2015 review and the evaluation of Millenium Development Goals (MDGs) to improve maternal health (WHO, 2015), more remains to be done.

In an effort to address the unmet needs of women in the MDGs, the WHO introduced the SDGs with indicator 5.6.1 emphasising the proportion of women age 15-49 who make their own informed decisions regarding sexual relations, contraceptive use and reproductive healthcare (UNFPA, 2020). One of the specific targets of the SDGs (SDG 5) is that barriers to

the utilisation of sexual and reproductive health services will be removed, and prioritisation of changes in social norms and government policies that allow women and girls fully exercise their reproductive health rights will occur by 2030 (UNFPA, 2020). The expectation following the MDG review and in line with tackling current maternal health challenges is that by 2025, 65% of women will be able to make informed and empowered decisions regarding their reproductive health (WHO, 2021). However, various studies show that informed decision-making is difficult to ascertain (Yuill et al., 2020). They link the non-attainment of this goal to a variety of reasons and causes, some of which are related to the experiences of pregnant women of routine vaccination which will be discussed further in this review of literature.

Similarly, the ability of women to make informed health decisions, that is, decisions based on sufficient knowledge needs to be promoted to ensure women enjoy highest attainable standard of health, are able to identify and prevent diseases, and adequately comply with local and global recommendations regarding their health (UNFPA, 2020). Indeed, SDG 5.6.1 is identified to specifically offer new insight into women's health decisions. It is the only one of more than 200 indicators which quantifies women's decision-making as a matter of agency and autonomy differently from the previous emphasis on monitoring access to services (UNFPA, 2020).

Despite the United Nations (UN)'s recognition of the ability of women to make decisions in matters regarding their own health, the existence of social and cultural beliefs serve as hindrances in many of the member states/countries in making women air their views in their own health decision-making process (Barbi et al., 2021). For example, in most part of the world, the concept of motherhood and the position of women in the society are closely intertwined which affects the way that women perceive and consider the biological idea of pregnancy (Adalia et al., 2021, Russo, 1979). In this way, the societal expectation of change in women's social status competes with the ways that they conduct themselves during pregnancy. This lessens their ability to influence choices regarding the course of their pregnancy, impacting on women's experiences of pregnancy-related care, including vaccination, particularly among high-parity women mostly in developing countries, which is further explored in this review.

2.4.2 Vaccination experiences of pregnant women in sub-Saharan Africa (SSA)

Women of Reproductive Age (WRA) constitute more than 20 million in SSA with average fertility rate of 4.56 children per woman (World Bank, 2022). A close association has been observed between women of high parity and health decision-making regarding the utilisation of antenatal and maternal healthcare services and subsequent reduced use of TTCV during

pregnancy (Yaya et al., 2019, Pathirana et al., 2015, Maral et al., 2001). Most women pregnant with their fourth child and above have the tendency to ignore, refuse, or delay vaccination, a behaviour that has been linked to their past experience in delivery centres, level of education, and socio-economic status (Yaya et al., 2020). Although a decline has been observed in the overall birth rates in the developing countries, desire for more children remains relatively high among WRA, especially in SSA. For example, in Niger, young childbearing age women (15-19) who had no formal education as well as their partners and who did not take decisions alone considered six or more children as ideal (Ahinkorah et al., 2020). Of note is the evidence reported by the WHO (2021) that an increase in birth rates of estimated 120 births per 1000 childbearing age women often deprives women of seeking or proceeding with educational attainment and limit autonomy regarding health decisions.

Giles et al. (2020) found that in most developing countries, utilisation of antenatal care services attended by skilled health workers is persistently lower than the minimum four ANC visits recommended by the WHO. Furthermore, pregnant women in LMICs experience a high and disproportionate cost of seeking skilled maternal and child healthcare because they pay out of pocket in addition to long waiting hours in antenatal clinics (Giles et al., 2020). These have been found to undermine pregnant women's frequency of attending antenatal care leading to missed opportunities for vaccination potentially adding to neonatal tetanus mortality (Yaya et al., 2019). Unfortunately, there have been scarce studies on any effective intervention to meet the challenges that confront vaccination hesitancy of pregnant women.

An approach offered by the WHO (2016) to many countries that has also been adopted in Nigeria is the revised antenatal care programme which recommends at least eight antenatal visits. This gives pregnant women the opportunity for more contacts with care providers to administer TTCV. However, the revised antenatal care framework raises the concern of cost for women. This cost includes travel time and transport to and from antenatal centres, waiting time, loss of working hours, and care of other children (McHenga et al., 2019). This supports the claim that under-utilisation of antenatal care services denies pregnant women adequate use of TTCV (Yaya et al., 2019). Despite its benefits, pregnant women in SSA have the potential to ignore, delay or refuse vaccination during pregnancy (Yaya et al., 2020). This necessitates further exploration of pregnant women's perceptions and experiences of vaccination during pregnancy.

2.4.3 Vaccination experiences and practices of pregnant women in Nigeria

In Nigeria, women's health-related decisions regarding where they seek antenatal care during pregnancy has been closely linked to the environment where they live (Okonofua et al., 2018,

Babalola and Fatusi, 2009). This nature of women's health-related decision making is not only evident in antenatal centre preferences, but also in vaccination with TTCV during and after pregnancy. The Nigerian maternal immunisation schedule for pregnant women and childbearing aged women as in Table 2.2 above clearly recommends that women take five doses for lifelong protection, yet reports show that about 62% of women had two doses only of TTCV during pregnancy (Nigeria Demographic and Health Survey - NDHS, 2018). Despite many efforts to improve vaccination coverage of pregnant women, particularly, with the integration of formal and informal antenatal centres, the average rate of protection at birth of neonates against tetanus infection has stalled at 60% (Yusuf et al., 2021).

There are many influencing factors identified in the literature as regard the experiences and practices of pregnant women of TTCV. One such issue is related to the source of vaccination information (Olufunmilayo Kuye-Kuku et al., 2022, Gbadebo Adeyanju et al., 2021, Ophori et al., 2014). They identified in certain regions and belief systems, the source of information is critical to the perception that women of reproductive age develop towards the use of vaccines. Gbadebo Adeyanju et al. (2021) stated rumour and misconception of perceived benefits of vaccine can determine women's intention of whether to vaccinate. Ophori et al. (2014) in their empirical review of the trends of vaccination in selected states of the six geo-political zones in Nigeria identify the Northern region of the country to have the lowest vaccination coverage and highest level of vaccination hesitancy levels. Their findings suggested that trust in the conveyor of vaccination information remains paramount, particularly due to strong Islamic influence. The rates of vaccination coverage according to their study range between 8.8% to 26% in North-West and North-Central Nigeria, which is similar to other findings in the same region. Nass (2018) in their survey found only 23% tetanus vaccination coverage of pregnant women in North-Western Nigeria. In their findings, pregnant women were less likely to vaccinate if the information was not from a trusted source such as the community or religious leaders. These results contradict the evidence in relation to South-West Nigeria which suggests that healthcare workers are the more trusted source of vaccination information with about 80% expressing intention to vaccinate as long as it is recommended by healthcare professionals (Gbadebo Adeyanju et al., 2021). While this rate does not align with the actual proportion of pregnant women that reportedly vaccinated during pregnancy (62%) (Nigeria Demographic and Health Survey - NDHS, 2018), these findings suggest social relationships in different regions remain significant in the use of vaccines.

Furthermore, not only does the source of information constitute an issue for vaccination with TTCV, but pregnant women are also less likely to vaccinate if other women are not doing the same. Awosan and Hassan (2018) in an observational study found that while health professionals are a key source of vaccination information so are relatives and friends. Their

structured interview with 254 pregnant women revealed even though most women find tetanus vaccination a popular phenomenon, 87% of women were aware of routine tetanus vaccine (RTV), the majority erroneously believed that one to two doses protected against tetanus infection because they received the vaccine based on others' frequency of vaccination at the centres rather than information about recommended doses provided by healthcare professionals. Gbadebo Adeyanju et al. (2021) in their study further indicate that intention to vaccinate and awareness of tetanus vaccination do not necessarily equate to actual vaccination practice because most women's search for vaccination information often takes place after the child is born. This corroborates the evidence earlier that the protective responsibility of pregnant women impacts their experiences resulting in conformity to societal norms and expectations (Lupton, 2012, Salmon, 2011), particularly with using TTCV in the way that pregnant women do in this context. This suggests the need for further investigation into pregnant women's experiences of vaccination in different antenatal centres and the reasons why they perceive one to two doses of tetanus vaccine as a norm.

2.5 Vaccination experiences in antenatal care centres

Having established the global perspectives on vaccination decision which informs the foundation of the experiences of pregnant women of vaccination as well as the patterns of vaccination experiences and practices of pregnant women in sub-Saharan Africa and Nigeria, this section presents an overview of the TTCV delivery in antenatal centres and the factors that influence the experiences of pregnant women in the centres.

The articles selected for review in this section were mostly conducted in SSA and South Asia. These regions were selected because reports show they have the lowest recommended numbers of skilled antenatal care attendants with 54% of pregnant women in SSA compared to over 90% across Latin America, the Caribbean and European regions receiving at least four skilled antenatal care (UNICEF, 2022). These reports are the reasons why the MNTE initiative is not a priority in most developed countries (Giles et al., 2018, WHO, 2016).

2.5.1 Antenatal care service delivery and performance

According to WHO (2016:1), antenatal care (ANC) is defined as “the care provided by skilled health-care professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy”.

ANC is the entry point of intervention that provides the opportunities for prevention, identification, and treatment of diseases affecting women and the growing fetus during

pregnancy (Giles et al., 2018). One of the components of ANC routines in tetanus-prone countries is vaccination of pregnant women with TTCV. Other components include but are not limited to health education and health promotion.

Studies have linked the uptake of TTCV by pregnant women with skilled antenatal care (Kilich et al., 2020). Despite the progress made in the utilisation of ANC, UNICEF (2022) estimated that in 2015-2021, only about 66% of pregnant women globally had at least four ANC contacts. The figure was even lower in most regions yet to achieve MNTE such as SSA and South Asia with about 53% and 55% respectively (UNICEF, 2022). Not only was the number of pregnant women's ANC contacts inadequate, the timing of their first ANC also varied in the regions. According to 1990-2013 global report, early timing of ANC visits was at 24% in LMICs compared to 82% in HICs (Moller et al., 2017).

Recognising the importance of early and continued ANC, the WHO (2016) updated the previously Focused Antenatal Care (FANC) Framework which recommended four antenatal visits, to recommending a minimum of eight ANC contacts to all pregnant women. The updated framework shifted the focus of recommendation from ANC 'coverage' to ANC 'contacts', implying person-centredness. The new framework emphasises the need for comprehensive, quality, and person-centred care at all times (WHO, 2016). However, what quality and person-centred care means according to Izugbara and Wekesah (2018) varies between pregnant women. Dahab and Sakellariou (2020) conducted a systematic review of the perspectives of care providers and childbearing age women in low-resource countries from 2015-2019 on seeking skilled maternal care. They reviewed 13 empirical studies from eight African countries. They found that among many other reasons, the unique needs of pregnant women and the ways that they connect with their care providers hugely impacts on their choices of antenatal centre. This informs the popular preference of pregnant women for informal over formal antenatal centres or a hybrid of both, particularly in LMICs (Finlayson and Downe, 2013) leading to inadequate routine vaccination.

2.5.2 Factors influencing routine vaccination with TTCV

The factors that influence the routine vaccination of pregnant women with TTCV in the different antenatal care centres are several and complex. However, three prominent themes have been identified from the review of literature i) healthcare delivery system ii) social factors and iii) knowledge-based factors.

2.5.2.1 Healthcare delivery system

With regard to the healthcare delivery system, competition between formal and informal maternity health services, the complex pattern of utilisation of pregnant women of formal and

informal maternity care services, the lack of coordination and integration of different typologies or models of maternal health services, the trust in quality and credibility of different health facilities, and the insensitivity of healthcare providers to women's needs are identified as the commonest factors driving pregnant women's health dispositions towards their choice of antenatal centre where vaccination takes place (Udenigwe et al., 2022, Fantaye et al., 2019, Izugbara and Wekesah, 2018). Many studies in Nigeria have identified the complexity of the maternal health systems, i.e., the use of one or both formal and informal models of healthcare as the most influential factor affecting pregnant women's health dispositions (Gbadebo Adeyanju et al., 2021, Yaya et al., 2019, Okafor et al., 2014, Ebuehi and Akintujoye, 2012). Okafor et al. (2014) identified that the option of formal and informal models of maternity care are not only resource dependent and competitive, but that each model has unique features that align with pregnant women's perceived needs at the time. As part of a more extensive study exploring the perception of women regarding antenatal and delivery place decisions in Sierra Leone, Treacy and Sagbakken (2015) conducted focus group discussions and interviews with 61 pregnant women and community members regarding women's health decision-making. Their analysis revealed that the decision regarding the place of delivery is complex and multifaceted, and it affects women's health dispositions in that their decisions regarding pregnancy and delivery are often collective and affected by what and how they interpret their conditions and symptoms. While women's choice of place of pregnancy care and delivery reflects their priority to use TTCV, not all the pregnant women embraced a collective disposition as they strategically seek best possible care including the use of TTCV.

Studies have shown the strategies that have been implored to improve the health dispositions of women towards the place of antenatal in pluralistic health systems such as Nigeria. These strategies include subsidising cost of care, ease of access, involvement of community leaders in the implementation of interventions aimed at promoting utilisation of formal care, and effective and respectful communication between healthcare workers and users (Udenigwe et al., 2022, Fantaye et al., 2019, Treacy and Sagbakken, 2015). Furthermore, involvement of community health committees in managing the presence of and preference for informal centres, particularly in rural communities is identified as a bottom-up strategy to limit the rate of use of informal care (Abimbola et al., 2016). They identify this can be achieved through subtle influence and persuasion of health committees in encouraging community members in the navigation of health options and promotion of the use formal providers.

According to Fantaye et al. (2019), implementing digital health such as through mobile phones to provide health promotion and educational messages to service users and relatives if necessary could help to tackle misconception of health information which may guide antenatal centre choices. For users who lack literacy, information could be transmitted through a variety

of techniques, such as audio messaging and pictographs in regional dialects. To help healthcare professionals become more technically and interpersonally competent, mobile applications could also be very important in providing instructional messages and training interventions. Despite these suggested strategies to improve health dispositions towards formal model of care, the literature suggests the decisions and interests regarding where pregnant women seek antenatal care including the use of TTCV remains unclear and suggestive of further exploration.

2.5.2.2 Models of antenatal care centres

According to Abdullahi (2011), prior to the introduction of a formal system of care was the existence of traditional care in Nigeria. The traditional forms of care were found to be used by many people for a combination of factors such as i) accessibility, ii) affordability, and iii) acceptability (Sulayman and Adaji, 2019, Adefolaju, 2014, Abdullahi, 2011). For these reasons, the Federal Government of Nigeria in 2007 under the traditional medicine policy integrated informal and formal care to institutionalise traditional medicine alongside conventional healthcare delivery in Nigeria (Traditional Medicine Policy for Nigeria, 2007). Since then, Nigeria has operated a pluralistic health system and maternal healthcare seeking behaviour has been hybrid for many pregnant women (Izugbara and Wekesah, 2018, Adefolaju, 2014). The studies show the quality of care including routine activities such as vaccination with TTCV in antenatal centres are not usually the problem for most pregnant women. Rather, it is about the women's perception of what quality care is to them, the cultural values, and beliefs that they hold, as well as the women's experiences and general satisfaction with care and the routines in the healthcare setting.

Several papers highlight the pregnant women's preference for informal healthcare centres in Nigeria. As reported in the Nigeria Demographic and Health Survey - NDHS (2018), more than half (57%) of pregnant women deliver their babies in the presence of unskilled persons which include traditional birth attendants (TBAs), community extension workers (CHEW) as well as family and friends. Although, informal care is not always the first option of most pregnant women (Litorp et al., 2022, Abubakar et al., 2017). However, Litorp et al. (2022) in a cross-sectional survey of 26 states in Nigeria reported that the choice of place of delivery was not necessarily about the women's perception of quality of care that women receive in formal centres, rather, it is about their decision-making power. In Nigeria as in other LMICs, research shows an association between low proportions of deliveries in formal healthcare centres and men or by extension, the men's mothers (women's mothers-in-law) dominating in the health decisions of pregnant women (Speizer et al., 2014, Moyer et al., 2014, Moyer et al., 2013, White et al., 2013).

In assessing maternal health outcomes in relation to the choice of place of delivery, maternal mortality has been a standard measure. Pregnant women's choice of place of ANC and delivery have been traditionally associated with maternal mortality (Ayamolowo et al., 2020, Ajah et al., 2019, Olonade et al., 2019, Azuh et al., 2017). More attention has been paid in particular to the relationship of non-hospital delivery and maternal health outcomes in terms of proportion of deaths, however, Morhason-Bello et al. (2022) in their study noted that the place where women seek antenatal care was also closely associated with the uptake of TTCV. In their survey of 3640 mothers, they identified women who seek formal and supervised care had better access to the use of TTCV during pregnancy. Indeed, the WHO (2015) revealed, after hospital delivery or skilled birth attendant, the utilisation of ANC is the largest contributor to inequalities in maternal and child health in LMICs. For this reason, their studies show the choice of pregnant women of antenatal centres to be as important in determining maternal health outcome which includes how pregnant women engage the use of TTCV.

2.5.2.2.1 Motivation for pregnant women's antenatal centre preferences

In terms of pregnant women's antenatal centre preferences, the reasons that pregnant women use formal or informal or both models of care during antenatal and/or delivery is not clearly understood (Izugbara and Wekesah, 2018). However, research reveals socioeconomic status and maternal knowledge enhance women's utilisation of skilled antenatal care in most LMICs (Udenigwe et al., 2022, Okedo-Alex et al., 2019, Okonofua et al., 2018, Tsala Dimbuene et al., 2018). A qualitative study by Ntoimo et al. (2019) in twenty focus group discussions explored the perspectives of women and their partners in marital union in Edo-State, South-South Nigeria about the utilisation of traditional over skilled pregnancy care. Their findings revealed both formal and informal centres are used by pregnant women but for different reasons. However, the participants did show preference for informal over formal care in that they perceived modern medicine to be insufficient in treating all kinds of complications. They perceived certain age-long cultural beliefs about the efficacy of some herbal medicines to be more effective than orthodox medicine in treating specific pregnancy complications. For example, bleeding during pregnancy was reported to be more effectively treated with herbal medicines compared to orthodox medicine.

In contrast, there is evidence that some pregnant women align more with formal than informal models of care. Yaya et al. (2019) conducted a study to examine the role of socioeconomic status in women access to and utilisation of maternal health services in selected rural areas of Edo State, Nigeria. They collected data through 20 focus group discussions in 20 communities with women aged 15-45 years. The findings suggested that although most women did not entirely have the power to make decisions regarding where to seek care during pregnancy as men were recognised as key decision-makers, women who had access to and

control of financial resources were more likely to utilise skilled antenatal and delivery care. Their findings showed an intersection of gender roles and socioeconomic status in that financial dependence did not equate to absolute autonomy. Other studies on women's utilisation of at least eight antenatal visits explored further women's autonomy and socioeconomic status in relation to the frequency of antenatal attendance. The results identified that even as ANC visits increased with the level of women's autonomy and financial stability, the attitude of pregnant women's partners was an important factor in the quality of care that women sought (Ilori et al., 2022, Imo, 2022, Obasohan et al., 2019). Despite these investigations, the reasons behind women's health-related decisions including antenatal place where routine vaccination takes place is under-explored. Hence, it is important to understand the logic behind antenatal centre decisions where routine vaccination takes place so that an appropriate vaccination promotion programme could be developed and implemented to achieve MNTE in Nigeria.

2.5.2.3 Social factors

This sub-section reviews the influence of relationship on pregnant women's routine vaccination. Shafiq et al. (2017) pointed out that the uptake of TTCV of pregnant women during pregnancy largely depends on family dynamics and family structure as to whether they get support and encouragement to vaccinate or not. There is research on maternal immunisation among ethnically diverse population suggesting that perceived approval from family and peers was reported as a significant factor that influences pregnant women's willingness to use vaccines during pregnancy (Frew et al., 2014).

2.5.2.3.1 Family influence

In many cases, family members including spouses, mothers and/or mothers-in-law of pregnant women in low resource countries have very strong influence on women's vaccination decisions during pregnancy. Upadhyay et al. (2014) point to the significance of the involvement of spouses in women's utilisation of maternity healthcare services. In fact, they identify most pregnant women make decisions regarding utilisation of ANC and delivery in agreement with their spouses because of financial responsibilities.

Regarding relational factors, previous studies have revealed the many ways in which the social network which includes the family and peers of pregnant women influence their uptake and experiences of vaccination during pregnancy (Morhason-Bello et al., 2022, Chimukuche et al., 2022, Sato and Fintan, 2020, Sato and Yoshito, 2018, Frew et al., 2014). Women who are dependent in decision making, particularly at such a time as the period of pregnancy tend to evaluate what other women are doing: the likelihood of receiving vaccines increases when they have a friend who gets vaccinated too (Sato and Yoshito, 2018).

It is clear that social norm, household, and environmental factors positively or negatively affect women in their use of vaccines during pregnancy. Chimukuche et al. (2022) in a study in South Africa found that the decision of whether or not to adhere to a vaccination schedule depended on what women perceived as the normative practice in their environment. In their study, for example, negative sentiments emanated from cultural beliefs of pregnant women that traditional practices protect the growing fetus better than vaccinating during pregnancy. However, for Fleming et al. (2019) in a study in Malawi, environmental factor yielded a positive effect. In their findings, support from village leaders and community health workers were identified as factors that encouraged pregnant women seek skilled health care including routine vaccination. The pregnant women who participated in their study expressed concerns for their safety as they discredited the use of traditional medicine.

Downe et al. (2019) and Finlayson and Downe (2013) in systematic reviews identified the social perception of pregnancy as a socially risky venture was the reason for late initiation of antenatal care to engage routine vaccination. The reasons according to their findings is the believe that announcing pregnancy early may put pregnancy at the risk of evil eye or spiritual attack from jealous neighbours. Their findings also showed that for women who are classed marginalised such as women in deprived communities, pregnancy is seen as a social disgrace and for this reason, delay seeking antenatal care. Similarly, in Nigeria, the perception that pregnancy is a natural phenomenon was also found to make pregnant women delay seeking antenatal services including routine vaccination (Adekanle and Isawumi, 2008).

Ebeigbe and Igberase (2010) conducted a survey on late initiation of ANC among 348 pregnant women in the South-South region of Nigeria. They found that besides financial and physical constraints, pregnant women described the reason for delay in seeking antenatal care was the belief that antenatal care was perceived primarily as curative rather than a preventive service. Their findings showed three quarters of the pregnant women in their study registered for antenatal care in their second trimester while one-quarter of them did in the third trimester. The pregnant women believed there was no benefit in reporting early for antenatal service since they had no issues that called for a doctor's intervention.

There is a paucity of research regarding pregnant women's experiences and perceptions of maternal and child health services in Nigeria, particularly in relation to their attitude towards ANC including routine vaccination. Further exploration is needed to understand the multiplicity of the contextual factors that influence pregnant women's health care experiences. This includes gaining insights into women's experiences of antenatal care that shape and inform their perceptions of preventive services such as routine vaccination.

2.5.2.4 Knowledge-based factors

Lack of awareness of the risk of tetanus infection and knowledge of preventive vaccine were consistently identified as main barriers to pregnant women's adequate use of TTCV. Awosan and Hassan (2018) found in their study two-third (68.8%) of 260 pregnant women had the misconception that a single dose of TTCV protected them from tetanus infection while less than a quarter (23.6%) had received two or more doses of the vaccine. They identified most pregnant women were not aware of the number of recommended doses, immunisation schedule, and the benefits of the vaccine.

Healthcare providers who recommend and/or administer vaccines are reported to be the main source of vaccine knowledge on whom pregnant women depend for information (Chimukuche et al., 2022, Gbadebo Adeyanju et al., 2021, Nalubega et al., 2021, Johm et al., 2021). However, Chimukuche et al. (2022) in an exploratory study of 28 pregnant women in rural South Africa showed that perhaps health workers were not spending enough time in explaining the importance of vaccination during antenatal visits. They reported that this led to pregnant women feeling indifferent about the use of vaccine as they lacked adequate knowledge of the vaccine.

Low maternal literacy level, i.e., pregnant women with little or no education were found to negatively affect routine vaccination in Nigeria (Gbadebo Adeyanju et al., 2021, Ogundare et al., 2021, Nass, 2018). Nass (2018) stated in a survey of 309 women, maternal education increased the likelihood of a woman's access to vaccination information, thus increasing their compliance with vaccine. However, in a study by Adegbenro et al. (2019), they found non-pregnant tertiary institution students unwilling to engage the use of the 5-dose TTCV recommended for all WRA. They linked this reluctance to a lack of appropriate knowledge of tetanus infection and its vaccine. These findings are corroborated by a systematic review by Faria et al. (2021) that showed there is no statistical evidence that women with education receive tetanus vaccine more than women without education. The reasons for whether pregnant women vaccinate with TTCV are complex and multifactorial. Regardless of the level of education, pregnant women were found to not use TTCV as recommended. Therefore, it would be important to extend the investigation to discover how the practices and experiences of pregnant women of vaccination influence their perceptions or not of TTCV in Nigeria.

2.5.3 Summary of literature review

From the review of current literature presented, it is clear that there are many factors that influence the experience of pregnant women with TTCV during pregnancy. None of the studies explored how these experiences in turn affect pregnant women's perception of the use of TTCV and the ways that pregnant women make decisions, including other pregnancy care-related decisions based on these experiences. Besides, none of the studies on vaccination behaviour of pregnant women have explored the influence of the intersection of social and structural issues on the perception of pregnant women of TTCV across different models of antenatal care - formal and informal.

The existing studies identified the influence of both social and structural factors on the use of TTCV by pregnant women, but there is a lack of robust evidence about the interaction of social and structural factors that shape the perceptions of pregnant women of TTCV, particularly through their own lens.

For these reasons, it is important to conduct research to look beyond barriers and enablers of vaccination behaviour of pregnant women to consider how the wider social and structural contexts interact to inform the women's perception of the use of TTCV using a theory that explains actions and motivations within a social system.

As a constructivist-informed qualitative research study, rather than begin with theory, the process of this research found Bourdieu (1990) practice theory fit within the broader literature, and in understanding how the vaccination practice of pregnant women connected with theory.

2.6 Theoretical perspective

2.6.1 Introduction

This section presents the theoretical perspective that shaped this study which is based on the life and work of Pierre Bourdieu's *Theory of Practice* (Bourdieu, 1990, Bourdieu, 1977). Bourdieu provided interpretation for his key theoretical concepts – habitus, field, and different forms of capital such as social, economic, cultural, and symbolic and their interaction in the theory of practice. Bourdieu's personal trajectory and concerns informed his theoretical writings, and particularly, his reconciliation of the subjective and objective approaches to social research informed the notion of practice theory.

2.6.2 Pierre Bourdieu's Journey to the Theory of practice

Bourdieu's work is centred around the theory of practice, power, and symbolic violence. His experiences informed his ideas of social science that shaped his intellectual legacy (Swartz, 1997). Bourdieu saw the task of sociology as uncovering *"the most profoundly buried structures of the various social worlds which constitute the social universe, as well as the "mechanism" which tend to ensure their reproduction or transformation"* (Bourdieu and Wacquant, 1992 :7). This led him to develop his own style of research and adopted the stance of a critical inquirer, challenging social interactions and systems in an uncommon interpretivist tradition, a backdrop against which the theory of practice was developed (Swartz, 1997).

In an attempt to provide a framework for understanding social health behaviour, Bourdieu addresses dichotomies such as structure/agency. He offers an interdependent relationship wherein human agency (subjective) work within the limits made available by social structures (objective). Bourdieu's work challenges the utilisation of objective and subjective approaches in addressing issues in the social world. On the one hand, subjective approaches to social research often miss out objective structures and social conditions that contribute to the subjective. On the other hand, objective approaches often use inexplicit subjective observations. Bourdieu suggests that using either of these approaches in isolation is potentially harmful to social research. He argues that "of all the oppositions that artificially divide social science, the most fundamental, and the most ruinous, is the one that is set up between subjectivism and objectivism" (Bourdieu, 1990 :25). This he challenges by his theory of practice, incorporating both objectivism and subjectivism to create a theory that captures the experiences and practices in social world (Jenkins, 2002). Bourdieu offered a 'third way' to navigate the divide between objectivism and subjectivism to emphasise 'the primacy of relation' (Bourdieu and Wacquant, 1992:15). The theory is intended to address subjectivist-objectivist dichotomy, combining both types of knowledge by incorporating layman's representation of reality and reality of objectified structure to provide the full truth of a phenomenon (Bourdieu, 1977).

Building on this epistemology, Jenkins (2002) describes this as a theory that aims to avoid explanations within deterministic or deliberate intentions. According to Schatzki (1987), Bourdieu is the first major social theorist to analyse action as governed by practical intelligibility, that is, what makes sense in action and also offers the perspective on how structures of social phenomenon are determinants of and perpetuate action.

Bourdieu's theory of practice brings together concepts of institutional and social structure, power dynamics and agency in the social world. The theory can be used to interpret and analyse how individuals and groups of people behave in a social setting. According to

Bourdieu's theory of practice, group behaviour is more complex than the sum of the group's members. In order to explain group behaviours, his theory considers the effects of culture, traditions, and structural factors (Jenkins, 1992).

As a framework, Bourdieu's theory of practice helps to critically explore the ways that engrained practices are neither in the rational calculation of decisions nor in the determinants of the mechanisms superior to or external to the agents (Bourdieu, 1990). His theory stresses the fact that *practice* is unconsciously regulated by social mechanisms, something Bourdieu likens to a 'feel for the game' which gives the game a subjective sense' (Bourdieu, 1990:67). The theory of practice attempts to bring to the fore an understanding of the taken-for granted in the social world, the things outside conscious control and discourse (Jenkins, 1992). In sociological ideologies, Bourdieu's work remains relevant in exploring the subtle interplay between constraints and freedom which characterises social interactions and enables a person to do what is right without their conscious 'knowing' of it (Jenkins, 1992).

The following section presents each of Bourdieu's concepts of the theory of practice and their interrelationship in a Venn diagram.

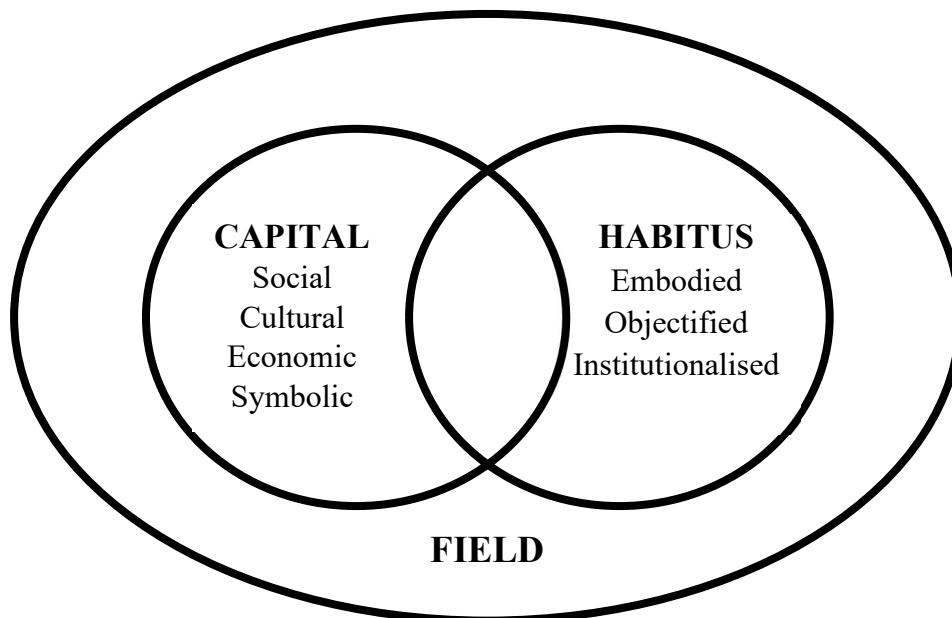


Figure 2.3: Concept map of Bourdieu's theory of practice in Venn diagram

2.6.2.1 Field

Field or social field is one of the core concepts that structure Bourdieu's thoughts. Field is a metaphor that Bourdieu uses to describe the social arena or space within which agents and institutions struggle or compete over specific resources (Jenkins, 1992). Field defines the structure of the social setting in which habitus (socialised norms that guide behaviour or thinking) operate (Swartz, 1997). Bourdieu defines field as:

a network, or configuration, of objective relations between positions. These positions are objectively defined, in their existence and in the determinations they impose upon their occupants, agents or institutions, by their present and potential situation (situs) in the structure of the distribution of species of power (or capital) whose possession commands access to the specific profits that are at stake in the field, as well as by their objective relation to other positions (domination, subordination, homology, etc.) (Bourdieu and Wacquant, 1992 :97)

Field denotes the social space of production, circulation, and appropriation of goods, services, knowledge, or status within which actors struggle competitively to accommodate and dominate using different kinds of capital or resources (Swartz, 1997). It is the multiplicity of social environment or contexts in which agents produce practices, compete, and develop social capacities (Richardson, 1986). Fields may be thought of as organised and structured spaces around specific types or combination of capital, examples of fields analysed by Bourdieu are the intellectual field or field of education, field of law, field of religion, field of science (Swartz, 1997). Fields are structures, institutions, activities specific to that field, existing independently of each other and able to effect change within the field but within a wider field context, that is, fields within fields (Bourdieu and Wacquant, 1992). However, Bourdieu contends that the more complex a society is, the more socially differentiated the society will be, and therefore, the more fields that will exist in the society (Jenkins, 2002 , Wacquant, 1989).

Field is also viewed as the difference between Bourdieu's early ethnographic study of the Kabyle tribe in Algeria and his later sociological studies in France wherein he attempted to rework sociological concepts to capture how capitals are concentrated and distributed in different fields in capitalist societies (Robbins, 1991). Each social field provides a way of accumulating and distributing their specific forms of capital and mechanism for conversations of capital between fields (Richardson, 1986). Fields therefore do not exist without capital as Swartz (1997) points out, there are as many different types of fields as there are capital. Bourdieu's development of the concept of field thus clarifies the relationship between structures, social and cultural conditions while incorporating agentic power of the individual (Robbins, 1991).

Different from Erving Goffman (1974), an interactionist whose conceptualisation of field as a 'frame' focuses on individual action and reaction, Bourdieu takes much more account of social and economic processes into the heart of his theory. Although Goffman and Bourdieu both focus on the fine detail of day-to-day life, Bourdieu takes a more structural approach and makes central to his concept of field the structures of the social world (Bourdieu, 1983, Jenkins, 1992). The field therefore is considered the primary object of the study of the social world where interactions within the specific context are studied. According to Bourdieu and Wacquant (1992)

"The notion of field reminds us that the object of social science is not the individual, even though one cannot construct a field if not through individuals, since the information necessary for statistical analysis is generally attached to individuals or institutions. It is the field which is primary and must be the focus of the research operations" (1992:107).

The field therefore provides a frame through which aspects of social life are examined in social and healthcare research (Collyer, 2018, Walsh et al., 2016, Collyer et al., 2015, Rhynas, 2005). Defining the field for this present study was critical to guide the analysis and presentation of findings of the research. The aim of this study from the outset centred on the experiences and perceptions of pregnant women of routine vaccination in different antenatal settings. During the data collection, it was apparent that women's experiences of vaccination during pregnancy were strongly based on where they choose to seek antenatal care. This is possibly due to the option of formal and informal models of maternity care services typical of Nigeria's healthcare system. Therefore, during the data analysis, it was important to extend my focus to explore first, the pregnant women's antenatal centre preferences. The fields were therefore categorised as the hospital, tradition, and faith-based antenatal centres where vaccination (social action) took place.

The participants' choice of field demonstrated a range of negotiations and position-taking that went on in the space of antenatal care services. The women's preferred field of action were shown to be influenced by three categorised factors - individual, community, and health-system factors. These factors in detail included the women's values, beliefs, knowledge, past experiences of antenatal and birthing, their perceptions of the attitude of care providers, and of the people around them including family and friends. Within these fields, the actors (pregnant women) interacted with structures in different ways to take their positions in the fields as well as preserve the nature of the field. Bourdieu stresses an effort to justify the field most favourable to a person's interest is to agree to the "*condition of true membership of the field*" (Bourdieu, 2010 :223). In an effort to delineate one antenatal 'field' from the other, the

pregnant women justified the antenatal care routines, advice, and recommendations in their preferred antenatal centres over another. The way that this concept describes the place of antenatal care where vaccination with TTCV took place will be presented in the later chapters.

2.6.2.2 Capital

Bourdieu extends the notion of capital beyond material assets to capital categorised into economic, social, cultural, and symbolic (Jenkins, 1992). Bourdieu used capital to situate people in their social space, he argues that people from different social positions differ with regard to their possession of the different forms of capital (Bourdieu, 1984). He defines capital as 'accumulated labour in its materialised or incorporated embodied form' (Bourdieu et al., 2021). Bourdieu's forms of capital are interconvertible and can be accumulated and transferred from one social space to another (Navarro, 2006). Therefore, in this thesis, what counts as capital depended on which of the four forms of capital was accessed, possessed, or exchanged as resources by the actors (pregnant women) in their respective fields.

2.6.2.2.1 Economic capital

Bourdieu recognises economic to be the most interconvertible into other forms of capital. For example, money buys education which families convert into influence which they accumulate and transfer from generation to generation (Power, 1999). Economic capital is the command of cash and material assets, it covers property and labour issues. Bourdieu in agreement with Marx' works on economic dominance emphasises the importance of economics in creating a system of exchange of power, labour and property (Swartz, 1997). Economic capital is one form of capital that has gained importance in healthcare settings in recent years with focus on the relationship between cost of care and healthcare seeking behaviour in understanding health inequalities (Paccoud et al., 2020, Doblytė, 2019, Pinxten and Lievens, 2014). While most pregnant women in this study acknowledged cost of care was a determinant in making a position for their antenatal centre preferences, education, and legitimate knowledge of VPDs are aspects of vaccination behaviour which can manifest in relation to their preferences and the use of economic capital.

2.6.2.2.2 Social and cultural capital

Bourdieu's concepts of social and cultural capital closely relate and overlap in many ways. While social capital accrues from institutionalised relationship such as in family, from networks of relationship or mutual acquaintance and recognition, cultural capital is a noneconomic resource differently available to people which they use to signal their membership in a social group or connection (Khan, 2011, Bourdieu, 1986). Cultural capital includes legitimised knowledge and language skills which Bourdieu discusses elaborately in relation to power dynamics and distribution (Swartz, 1997). Cultural capital can be objectified (as in cultural

goods), can be institutionalised (as in educational system) or embodied (as in habitus). Bourdieu believed cultural capital plays a subtle role in transfer of power in the society and in the maintenance of social class. He defined cultural capital as “familiarity with the legitimate culture” (Bourdieu, 1984:91). He further described how families pass on cultural capital to their children by introducing them to dance and rare sports, take them to galleries and talk about literature and art over dinner table. His concepts of social and cultural capital therefore highlight cultural capital as the collection of skills, taste, and mannerism that individuals acquire through being a member of a social class.

Cultural capital and economic capital can often be linked, particularly, as socioeconomic status of parents translates to class advantage. This has also been linked to healthcare inequalities where health-related behaviours and performances are used to strengthen class and health advantages intergenerationally in families. Being physically fit, eating a nutritious diet, and having a thin body that suggests a lot of work in form of exercise and discipline now place value on health which have long-term implication for health, socioeconomic attainment, and inequalities (Mollborn et al., 2020). These health-related behaviours result in the development of habitus that becomes ingrained and unconscious habit acquired over time which can be the product of both strategic and unconscious socialisation (Mollborn et al., 2020).

Furthermore, the concept of cultural capital has been expanded to understand how cultural capital shapes healthcare and is used in provider-patient interaction. Shim (2010) defined cultural health capital as the “repertoire of cultural skills, verbal and nonverbal competencies, attitudes and behaviours, and interactional styles, cultivated by patients and clinicians alike, that, when deployed, may result in more optimal health care relationships”.

Culture-related factors such as normative beliefs and values have been shown to be associated with health status (Abel, 2008) and health seeking-behaviour (Ndu, 2022). Contextual factors such as social settings or fields, culture, norms, and values are non-material capital that are commonly overlooked which influence health-seeking behaviour, particular in women (Ndu, 2022). For example, during the data collection for this study, irreconcilable differences emerged between pregnant women in formal and informal antenatal centres which were linked to cultural values and beliefs of their social network.

2.6.2.2.3 Symbolic capital

Lastly is the symbolic form of capital which Bourdieu relates to the ‘search for recognition’ or a ‘social libido’ – “glory, honour, credit, reputation, fame – the principle of an egoistic quest for satisfactions of *amour propre* (a sense of one’s own worth) which is, at the same time, a fascinated pursuit of the approval of others” (Bourdieu, 2000:166). Bourdieu highlights both the dominant and dominated depend on the recognition, credit, and confidence of others.

Symbolic capital therefore explains the desire of individuals to have their cultural capital recognised and the acknowledgement of that capital by others (Steinmetz, 2006). Therefore, in a social field, the recognition of economic, social, and cultural capital translates into symbolic capital “worthy of being pursued and preserved” (Bourdieu, 1977:182).

Symbolic capital is an abstract form of capital described by Jenkins (1992) as prestige, social honour or reputation and Swartz (1997) describes it as ‘desired capital’ – a form of inexplicit demarcation of power leading to status and most demonstrated by rank or social position. It is the resources and respect accorded to a person to signify their value in a field (Walther, 2014). It was observed that the presence of symbolic capital (reputation) or perception that care givers, either in formal or informal centres ‘know best’ helped to preserve the antenatal fields, sustain the hierarchy of vaccine knowledge which subsequently became the norm of vaccination practice.

2.6.2.3 Habitus

The concept of habitus explains how it is that people act and think in accordance with internalised or partly unconscious ideas, beliefs, and practices (Webb et al., 2002). It represents Bourdieu’s explanation of constant re-legitimisation of cultures, customs, traditions, and social norms that guide and explain everyday lives and behaviours of individuals (Webb et al., 2002). Put differently, in daily lives, individuals act unconsciously of embedded or deposited dispositions and make choices as they engage with various social fields as they also deploy different forms of capital. Habitus is defined as:

“the way society becomes deposited in persons in the form of lasting dispositions, or trained capacities and structured propensities to think, feel and act in determinant ways, which then guide them” (Wacquant, 2005:316)

Habitus is Bourdieu’s way of explaining the regularities of behaviour that are associated with social structures, such as class, gender, and ethnicity without making the structure deterministic of behaviour or losing sight of individuals’ agentic power (Power, 1999). In other words, a person is predisposed to act in accordance with their acquired dispositions which literally becomes second nature, for example, gender identity is an aspect of habitus embedded practically from childhood (Power, 1999). According to Kraus (1993) cited in Calhoun et al. (1993):

“Gender identity is a deeply rooted, bodily anchored dimension of an agent's habitus. It affects the individual in the most 'natural' parts of his or her identity, as it concerns his or her body, the vision of the body, the possibilities of sensual perception, of feeling and expressing pleasure and pain ...Relearning another gender identity ...appears to be almost impossible” (1993:170).

The class disposition of habitus is likened to gender in that it is not only the product of structures and producer of practices, but it also reproduces structure. For example, a person's accent, mannerism and comportment goes with them everywhere (Power, 1999).

Habitus is neither a result of free will, nor determined by structure, but created by an interplay between dispositions shaped by past events and structures, and current practices and structures (Bourdieu, 1984). People's experiences become embodied, and through the experiences develop and learn the rules that become their second nature. The topic of this research includes the almost 'autonomous' response of pregnant women to the use of 1-2 doses of TTCV and rarely completing the recommended 5-doses. Habitus was significant in the analysis in this regard as most pregnant women seemed to have been socialised, and through observation of others developed their ways of responding to vaccination with TTCV. Personal experiences also seemed to have been combined with social views to shape the women's response to routine vaccination. For these reasons, the analysis of habitus was important as it greatly contributed to the interpretation and presentation of data obtained for this study.

2.6.2.4 Theory of practice

Having outlined each of the interrelated concepts that make up the theory of practice in the preceding pages, lastly, I present the relationship between these concepts in order to make sense of the theory of practice and its applicability to this study.

Theory of practice formula

Bourdieu (1984) defines practice in form of a social conditioning formula:

(habitus)(capital) + field = practice

In the equation above, Bourdieu describes practice in that, when capital (which individuals work to acquire) interacts with or is multiplied by habitus (which internally regulates individual's actions), and the resulting product is added to a field (place of social action), it produces an equivalent amount of practice, that is, the behaviour individuals display in social environment (p.101).

To capture the interrelationship of Bourdieu's concept of practice more effectively, I use a concept map that takes the form of a Venn diagram (see figure 2.3 above). This concept map shows the significance of each concept in relation to one another and demonstrates the ways they operate as a collective. The big circle represents the concept of field, which perhaps is the most crucial concept since it represents the social space. That is, the multiplicity of social environment or contexts in which agents produce practices, compete, and develop social capacities (Richardson, 1986). The smaller circles represent the concepts of capital and habitus functioning in interrelated manner. Bourdieu refers to them as forms of energy as the "energy of social physics" (Bourdieu, 1990 : 123). According to Bourdieu, there are four forms of energy used in the space of social action – economic, cultural, social, and symbolic (Jenkins, 1992). As noted earlier, Bourdieu (1990) relates habitus to capital in one of the forms of capital called cultural capital. He conceptualised habitus as the individual's experiences becoming embodied, and through experiences developed and learnt the rules that become second nature - habitus. Therefore, habitus represents a form of capital called cultural capital and there are three forms of cultural capital – embodied, objectified, and institutionalised.

The areas where the circles overlap represent the amount of benefit-gain an individual can get in a field. In other words, the greater the overlap between capital and habitus multiplied and field, the more successful an individual will be in securing benefits associated with the specific field. The area of the field that is not covered by the habitus represents the proportions of the components of cultural capital which together serve as potential for symbolic power also referred to as soft power. Symbolic power is the kind of power that is depicted as a 'subtle' struggle to win in the social world. Bourdieu's notion of symbolic power is power that is "gentle" "invisible" and "unrecognised" such as in "trust, obligation, personal loyalty, hospitality, gifts" and so on (Bourdieu and Thompson, 1991:24). The less overlap there is between the field and the product of habitus and capital, the greater the likelihood of the individual will experience symbolic power.

Bourdieu's theory of practice explains the relationship of pregnant women within different models of antenatal care in the field through interaction with their cultural environment and power dynamics therein. The primacy of the field as the focus of the research makes it possible to identify patterns of human behaviour in a population. Bourdieu theory of practice therefore guides the understanding how pregnant women perceive vaccination with TTCV and how this relates to their RVP.

2.7 Summary of theoretical perspective

The theoretical perspective in this thesis is one which seeks to bridge the divide between subjective and objective data through analysis of the social and structural aspects of antenatal care and the interactions and relationships within the different antenatal care settings where routine vaccination with TTCV takes place. Bourdieu's concepts of practice, habitus, capital, and field have the potential to contribute meaningfully to the understanding of the power dynamics of antenatal care space to effectively identify patterns of behaviour in it.

In the next chapter, I will discuss how I chose the methodology and the rationale for the approach.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

“Not everything that counts can be counted, and not everything that can be counted counts”
...Albert Einstein

3.1 Introduction

This chapter presents the detailed account of the methodological approach that I used to address the research questions as well as the justification for the approach. In section 3.2, I will begin by outlining the aim of the study and research questions to be explored. Section 3.3 discusses the philosophical assumptions underpinning the research which includes the ontological and epistemological positions adopted. In section 3.4, I will present an explanation, justification, and critique of the methodology for this research. This will include the rationale for exploring factors which influence pregnant women’s perception of TTCV using a constructivist-informed qualitative approach. The research method including the research settings, participants’ recruitment, data collection and analysis will be presented in section 3.5. In section 3.6, the reflexivity process that I used to handle the possible interference of my position in the conduct of the study will be presented. Lastly in sections 3.7 and 3.8, I conclude with a discussion relating to a) ethical issues and b) trustworthiness of the research and findings.

3.2 Research Aims and Questions

In the previous chapter, evidence was offered to show that the performance of antenatal care centres and other related factors including the general health system, social relationships, and knowledge of vaccine influence how women engage with the use of vaccine during pregnancy. Therefore, the overall aim of this thesis:

Seeks to explore how pregnant women in different antenatal centres in Nigeria perceive routine vaccination with TTCV and to examine factors which influence this perception.

To achieve this aim, three research questions were derived from this major focus:

1. How do pregnant women make the choice of the place to seek antenatal care including vaccination with TTCV?
2. How do relationships influence pregnant women’s choice of antenatal care including vaccination with TTCV?

3. What do pregnant women understand of routine vaccination with TTCV?

3.3 Philosophical Assumptions Underpinning the Study

In order to answer the research questions, this study takes a constructivist position as the philosophical assumption or worldview which relates to “a basic set of beliefs that guides action” (Guba, 1990:17). The constructivist stance underpins primarily qualitative research approaches within the social and behavioural sciences (Creswell, 2013). It asserts that “there can be no meaning outside the individual context” (Ritchie et al., 2014 :353). The main goal of constructivism is to understand the subjective nature of human experiences (Lincoln and Guba, 2016). In constructivism, social reality varies with the individuals involved and their particular context, and the experiences of their social world, reality, knowledge, norms, and beliefs are seen as social construction (Lincoln and Guba, 2016, Alvesson and Sköldbberg, 2009). For these reasons, the constructivist position focuses on individuals’ responses and how they interpret their environment, hence, facilitates an improved understanding of social, historical, and cultural context of the individuals (Creswell, 2013).

I present the philosophical assumptions related to my ontological and epistemological perspectives which underpin the choice that informed the research process.

3.3.1 Ontological and epistemological perspectives

This research study is supported by a relativist ontology and an interpretivist epistemology. According to Crotty (1998), ontology is the branch of philosophy that is concerned with “what is”, that is, existence, and the nature of phenomena or social ‘reality’. In this thesis, my ontological perspective is situated within a relativist ontological position. A relativist position assumes that there is no objective truth but that knowledge is created through subjective interpretation and social interactions (Crotty, 1998). For Guba (1990), they assert realities “exist in the form of multiple mental constructions, socially, and experientially based, local and specific, dependent for their form and content on the persons who hold them.” (1990 :27).

The perception of pregnant women’s experiences of vaccination with TTCV can be viewed as independent of the human mind, regardless of whether they understand what vaccination is. That is, a realism ontological position that the true nature of the phenomenon is one ‘out there’ which can be explored to discover absolute knowledge of it in a way that the researcher and the researched are independent entities (Kivunja and Kuyini, 2017, Braun, 2013). However, this study takes a contrasting ontological perspective – relativism – where the phenomenon is not distinguishable from the subjective experience of it (Denzin and Lincoln, 2005). The meaning of vaccination is inseparable from human experience, that is, vaccination is human

experience and human experience is vaccination, thus available only from the accounts of the pregnant women and the interest in this study is in the meanings that are ascribed to these experiences. This is shaped by culture, society, beliefs, norms, values, and the health care context.

Epistemology is a related but different branch of philosophy which is concerned with the question of what counts as valid knowledge (Holloway and Wheeler, 2013). It is about “how we know what we know” (Crotty, 1998 :8). According to Killam (2013) epistemology refers not only to how we come to know what we know, but the relationship between the knower and the would-be known. When an individual is in pursuit of knowledge, their action is influenced by their beliefs regarding knowledge which informs how they come to know what they know (Killam, 2013).

The epistemological stance supporting this research is interpretivism. The broad premise of interpretivism is its emphasis on the importance of understanding the perspectives of people in the context of the conditions and circumstances of their lives. The focus is on understanding and exploring the views and experiences of participants from their points of view (Ritchie et al., 2014). An interpretivist perspective investigates the intentions and meanings behind people’s actions such as their behaviour and interaction with culture and others in the society (Chowdhury, 2014). The way in which vaccination is perceived has an effect on the user, that is, the pregnant women and the knowledge it will produce. On the one hand, vaccination experiences can be perceived as existing as a body of truth that can be explained by precision. In contrast, vaccination experiences in this study are viewed as knowledge filtered through subjective thoughts and ideas (Chowdhury, 2014).

The ontological perspective of vaccination experience brings an account of what pregnant women bring to the study and this asserts an epistemological stance where understanding of pregnant women’s experiences are subjective, individual reflections and interpretations. As pregnancy is both a physical phenomenon, and one where the experiences of it are constructed in different ways, there are many and different realities. The purpose of this philosophical stance is to develop an understanding of pregnant women’s experiences of vaccination with TTCV through their own eyes, allowing them multiple perspectives of reality (Chowdhury, 2014). Although this study is situated within the wider context of Nigerian society, it is conducted in three different antenatal care settings, reflecting the differences in social, cultural, religious, and economic situations of pregnant women in Nigeria.

Next, I present the qualitative methodology for which my philosophical positions were established.

3.4 Methodology

According to Ritchie et al. (2014), methodology refers to an overview of the rationale for the research design and how the different components of the research fit together. The framework within which research is conducted to produce valid knowledge about the social world. It is what makes a research make sense, both in terms of process and design (Braun and Clarke, 2013). In this section, the methodology used in this study to answer the three research questions is presented. In regard to the overall aim of the research, an approach or strategy that facilitates and values discourse data was required which is supported by an interpretive approach. I present the rationale for the choice of interpretive approach employed in this thesis.

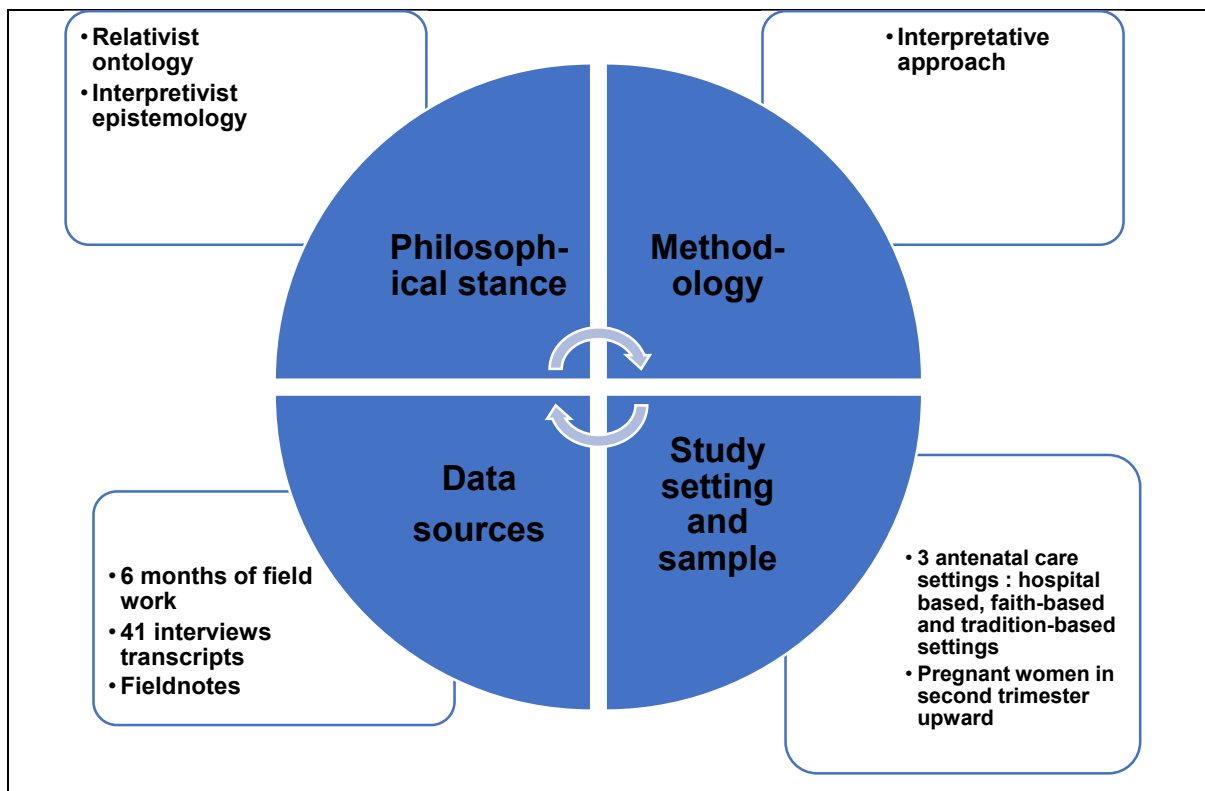


Figure 3.1 Summary of research design and methods

3.4.1 Rationale for qualitative interpretive approach

Within a qualitative framework and an interpretivist position, this thesis is concerned with the interaction of social and structural factors that influence pregnant women’s perception of vaccination with TTCV. The review of social and structural determinants of the use of TTCV by pregnant women in chapter two has shown there are significant factors that shape the

routine vaccination practice of women with TTCV during pregnancy. This combined with increased role expectation of pregnant women to protect the growing fetus outlined also in chapter two means that the task of identifying the main issues responsible for the ways that pregnant women engage with vaccination is complex and multifactorial. It is also an area of knowledge to which I want to add, that has not been undertaken by other researchers to date, particularly in Nigeria.

Furthermore, the majority of literature that were reviewed in chapter two used quantitative research approaches with very few mixed method studies to examine the perceptions of pregnant women on the use of TTCV. Most of the studies focused on either structural or agentic issues, highlighting the role of healthcare systems and healthcare workers as well as the attitude of pregnant women towards vaccination. The existing studies have not contributed significantly to how these issues influence the ways that pregnant women perceive vaccination.

Also, knowing that an interpretivist epistemological stance is based on a belief that qualitative approach is one that best provides insight to achieving the overall aim of the research. To reiterate, the overall aim is to explore how pregnant women in different antenatal centres perceive routine vaccination and to examine factors which influence this perception. As a perspective-based enquiry involving many and different experiences of social and structural factors and one that is peculiar to each person experiencing it, I found the selection of this methodology appropriate as a means of gaining in-depth understanding of the perception of pregnant women of vaccination. According to Merriam (2015), interpretive qualitative research which they also called basic qualitative design places the reality of the person involved at the centre of the research as the researcher interprets or make meaning of it by construction or sense making and not by discovery. Flick (2018) characterise a qualitative research as exploring or understanding a phenomenon 'from the interior', in other words, it is a naturalistic approach that takes the perspectives and account of the research participants as the starting point (Ritchie et al., 2014).

With these in mind, the nature of this thesis is exploratory, building on existing knowledge but also being open to the reality of the person experiencing the phenomenon. The study seeks to advance vaccination practice through the relation of structural, social, and individual vaccination action, particularly of pregnant women whose perception of vaccination to a greater extent, can contribute to the achievement of MNTE in Nigeria.

3.4.2 Use of reflexivity

As social research cannot ignore the influence a researcher has on the social world being studied (Hammersley and Atkinson, 1995), a reflective process becomes a part of the 'research tool' (Braun, 2013) to address and write about ethical issues and dilemma of the fieldwork (Karnieli-Miller et al., 2008). Ritchie et al. (2014) suggests that as long as research involves human beings, there is not completely 'neutral' or 'objective' knowledge. Cuthill (2015) further points out qualitative research is a co-constructed activity since the researcher is engaging in a human interaction with the participant. According to Finlay et al. (2003), reflexivity is the product of examining how the researcher and intersubjective element impact on, and transform research. The way the researcher's position, interests and assumptions influence the study (Charmaz, 2014), and the position of the researcher in relation to the social and political context of study including individual, group or organisation is what Rowe (2014) described as 'positionality'.

The use of a reflexive journal, where I recorded the specifics of how I might have influenced the result of the interview, was one of the ways I considered my positionality, and this is included as part of the research design. Reiterating according to Braun (2013), the description of the research process as a research tool, because objectivity is not present in qualitative studies, the person of the researcher makes a difference in the data findings as the researcher is seen as a part of the research instrument (Dodgson, 2019). To include the positionality of the researcher suggests transparency and authenticity. Reflexive thinking on oneself as the researcher, and making the research process the focus of analysis will significantly lessen the risk of being misled by the experiences and interpretations of the researcher (Wilkie, 2015). Figure 3.2 shows the reflective process in qualitative in-depth interview as described by Wilkie (2015).

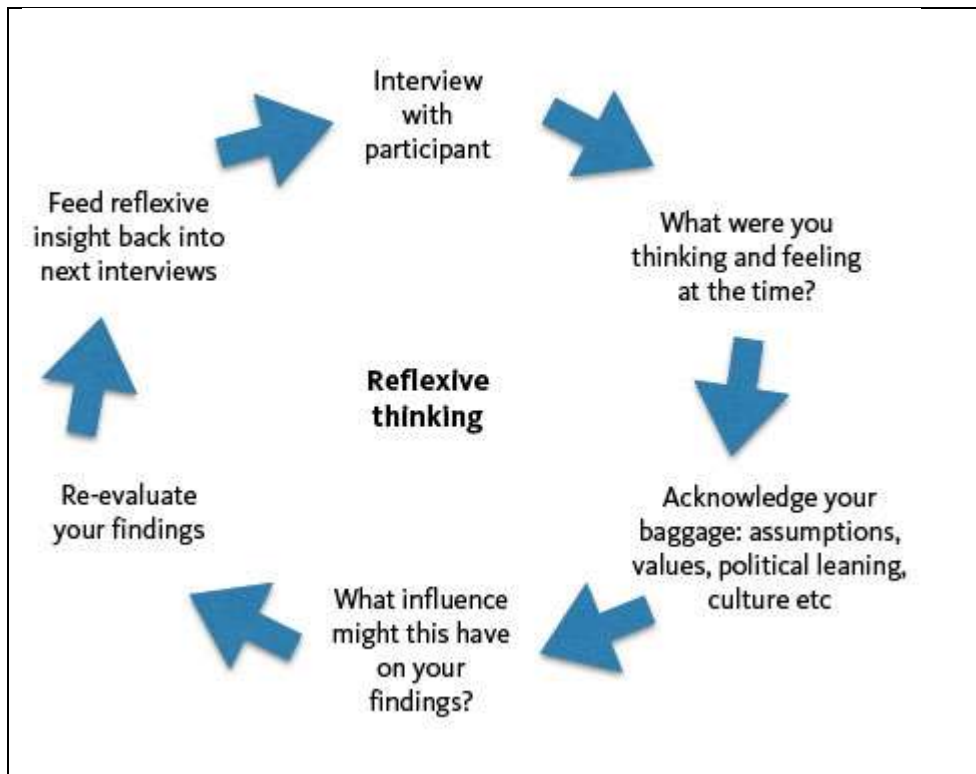


Figure 3.2 Reflective process

Source: Improve your research technique-Reflexive thinking, 5 practical tips (Wilkie, 2015).

As a principal figure who actively engaged with the collection, selection, and interpretation of data, I tried to eliminate the effects of my position on the conduct of the study. I present my professional and personal roles which may directly or indirectly influence the decisions that I made during the process of this study.

3.4.2.1 Personal reflection on the research

This PhD journey started on my curiosity as a nurse and, on the attitude of my professional colleagues towards the use of vaccines for their children, particularly, the vaccines that had to be paid for out-of-pocket. I discovered majority of my parent-colleagues, particularly, mothers vaccinated their children with only the free vaccines on the national childhood immunisation schedule. As healthcare workers and advocates for new vaccines, I expected my colleagues to use new unsubsidised vaccines for their children considering our socioeconomic status, but they never bothered. Previous studies that I engaged with revealed that healthcare workers' vaccination attitude and knowledge of vaccines are responsible for the attitudes of their patients towards vaccines. This understanding informed my desire to consider exploring the knowledge of rotavirus vaccine of mothers in my community during my master's program. Rotavirus was not free at the time of my master's research, and I thought to explore mothers' knowledge and willingness to pay for it. The 3-dose vaccine cost ₦5500 (about £6) per dose

at a time and it was not available where I worked. I had to travel approximately 72km (about 1 hour drive) with my husband to the nearest city to get our six-week-old child vaccinated with rotavirus at that time.

This experience sparked my interest in preventive health behaviour of mothers. I became interested in exploring whether women's perceptions of vaccines during pregnancy influenced subsequent use of vaccine, for themselves and their children. I used the motivation of my personal interest and curiosity to fuel the study. Nevertheless, I carried out a rigorous review of related studies in which I initially examined health behaviour theories that guided perceptions of risks and benefits of vaccines. I realised many studies had been conducted in this area and thought the experiences and perceptions of women themselves may add more knowledge value. This guided the formulation of the research aim and questions from the outset of this study. By reading social science literature, I was able to develop new ways of thinking and realised the need to look into the real logic behind the vaccination practice of women.

3.4.2.2 Examining my position in the research process

As the principal researcher in this study, I hold a particular role as a mother and professional nurse/midwife with the knowledge of what constitutes preventive health practices. I had worked in non-clinical and clinical areas of nursing for 13 years ranging from being a school health coordinator, a quality assurance executive, and a nurse administrator to working in an out-patient department of a teaching hospital where I worked before proceeding on this PhD journey. I have gained well above average level of skills and knowledge regarding preventive health practices, particularly in my interaction with people on the use of vaccine.

This study draws on the Attia and Edge (2017) procedure used to employ reflexivity. In their study, they proposed reflexivity comprises two interrelated components: the prospective and the retrospective. Retrospective reflexivity addresses the impact of the research on the researcher, whereas prospective reflexivity discusses the impact of the whole-person-researcher on the research (Edge, 2011). In this study, I prospectively reflected on the following:

Whitaker and Atkinson (2019) opined reflexivity as the awareness and understanding that there is a link between the researcher and the subject of inquiry, perhaps a mutual relationship. My position as a mother who has experienced being pregnant affords me the insight into odd and awkward questions that people rarely get to ask pregnant women in my culture. For example, 'how far gone are you?', 'when are you due?'. I recollect during my pregnancies, except my doctor and midwife, no laypersons including my immediate family, friends or neighbours asked me such questions. This is possibly due to a culture of secrecy and

protection of pregnancy from the evil eye in my country. This challenged my confidence as an inquirer during my conversations with the participants; however, I borrowed a cue from my skills as a nurse. I reflected that asking pregnant women certain questions may make either of the researcher or participant feel uncomfortable.

Recruiting hospital-based participants, with this study being in the same place I worked, access was considerably easier. This is because my colleagues were incredibly supportive with the recruitment of participants by providing a 'special' room for me to conduct the interviews. However, some of the pregnant women they spoke to on my behalf were professional colleagues and others that they felt would respond appropriately. I reflected that familiarity and sentiments of recruiting pregnant women who are professional colleagues or those selected by my colleagues could impact on the interviews. However, I adapted by not leveraging on our pre-existing relationship or gloss over relevant information while I kept to research ethics and confidentiality as much as possible. Braun (2013) described it as consciously wearing the armour of a researcher, constantly minding my role as an investigator, and remaining neutral as much as I could as well as ensuring they were not participating in the belief that they were trying to support or help me by participating.

Meanwhile, before I started the interview series, I did a pilot interview. I did this with a pregnant staff member in the hospital-based antenatal centre. Doing the pilot was important for me to practice and ensure coverage of all the questions in the interview guide, reduce anxiety, and to gain confidence of fluency and accuracy. At this point, I thoroughly reviewed the conversation to ensure we had adequately addressed the research questions (Braun, 2013). As a novice researcher and qualitative interviewer, my observation with the pilot interview was that I needed to do better in probing and be more flexible with my interview guide. To an extent, the pilot study was a testing exercise for me, however, I developed confidence to start the main interviews that I became less dependent on the topic guide as the study proceeded (Ritchie et al., 2014).

As a woman myself who had been in a situation of attending antenatal clinics, I reflected on those times and how I responded to routine vaccination with TTCV. I reflected on my attitude towards vaccination even as a healthcare professional. I recall how I did not like to be injected, and how I delayed and dramatized with my colleagues whenever I was due to get a shot. I recollect my response to vaccination for myself was different from the way I committed to vaccinating my children. On the other hand, I also reflected retrospectively on the situation where some of the pregnant women narrated their different experiences with missing schedules/reminders, perceiving it as inadequacy from a professional's point of view. I found it judgmental on my part when I asked other women about what I did not adequately do myself.

3.4.2.3 Examples of my positioning during the research

In this section, I'll discuss some of the key issues that came up before, during, and after the data collection and how I handled them.

Personal preparation for the interview. Having done a pilot interview helped me to modify and add probing questions (Majid et al., 2017). I had rehearsed with my pilot participant and noted the inadequacies in the conduct of the interview. I remember my supervisors' encouraging words and the confidence they had of my ability to engage conversations. I also had the confidence that my outlook as a married woman with a wedding band on my finger will connect me with the participants. All of these got me quite prepared for the series of the interviews. While I presume my outlook (semi-formally dressed) was not an issue with participants in hospital-based centres where the participants were dressed like me too, it was not so with non-hospital centres. I intentionally dressed down, appeared in casual clothes and flat slippers to non-hospital centres because I was aware of the social class status of the majority of participants in those centres. I noticed the women were quite relaxed around me and we connected quite easily at that level. This meant changing outlook for different settings depending on my appointments. I saw myself changing 'colour' and 'demeanour' like a chameleon between settings.

Language advantage. Being a native speaker of Yoruba language, most of the participants and I were inevitably comfortable discussing fluently around pregnancy. There was the camaraderie of shared language and ethnicity with participants in non-hospital centres, so, I had the confidence to establish a good rapport which to me was valuable. I assume this position inspired acceptance and trust, and so encouraged their participation. However, I was aware that being a researcher with my assumption that they may perceive me to be more knowledgeable could intimidate or hinder openness. I intentionally spoke Yoruba even though I struggled with some interpretations. Yet, some participants were quite unopen, even though they had consented to participate, they found some of the questions personal, gave yes or no answers, reluctant to share the reasons for some of their responses, found it hard to disclose their practices, their responses were shallow and off-guard for probes. This brought to mind the possibility of hierarchy between us (Braun, 2013, Liamputtong, 2007). But for other participants, my assumed privilege position did not hinder our discussion as they shared their experiences with no holds barred.

Use of local language was almost unrecognised at the hospital-based centre, most women could speak English, however, for participants that I recognised and shared the same ethnicity with me, I mixed local language in our conversations. I realised participants in this category had more confidence sharing their practices and we could drive our discussion home. For

example, when I asked about whose idea it was to receive antenatal care in the particular centre, one participant responded in local language “mi o ni choice”, (meaning I have no choice). This position entangled me with participants in this category. I realised I was becoming a “sister’s keeper”, I felt like offering advice in some of the ideas they shared, but then I reminded myself of my role as a researcher.

Being an insider. Having worked and lived in the community where I conducted the study for about six years at the time I went for data collection for this study, I was conscious and concerned about the extent to which my relationship with people, my ideas and beliefs may impact on the interpretation of my findings. I recognise my familiarity with certain behaviours of pregnant women who patronised the antenatal centre in my workplace. Having used the same antenatal centre and being inadequate with the use of TTCV myself positioned me as an insider to the women in this study. Finlay (2002) noted that there have been adjustments made to how qualitative research is conducted, one of which is that it no longer seeks to eliminate the researcher's presence. However, this poses the challenge that the researcher must overcome this barrier by using self-examination to draw on their personal disclosure as a means for data interpretations and to offer further insights (Finlay et al., 2003).

I had never met with most of the pregnant women who participated in this study. The first time I reported at each antenatal centre, I was both an outsider and a stranger, except for a few pregnant professional colleagues who participated. For my colleagues and other participants, I maintained research standards as much as possible, read, and signed consent and was sure they were not participating with sentiments. Meanwhile, during interviews I set the ambience for open and sincere discussion. I made them understand it was just a chat about their experiences, what they think of vaccination and how they use it. Sharing my pregnancy experience with them helped to build rapport and confidence with the participants to share information freely. I tried to be as honest as possible regarding my intention and reason for the study. By adopting this strategy, I noticed the participants were more relaxed in sharing their experiences of vaccination with TTCV.

Asking personal, sensitive, and emotive questions. While I was excited about the data collection, I was also careful about the sensitivity of question around marital status especially in non-hospital-based setting. Falling pregnant is a common phenomenon in rural areas where most participants in non-hospital centres came from. I had envisaged circumstantial pregnancy. I prepared myself for emotional responses from my participants who may be carrying circumstantial pregnancies. Nwokocha (2013) point this is a common trend among many illiterate women especially in rural areas of Nigeria. A few participants fell into this category as I assumed. I made a conscious effort not to probe into sensitive family issues

while I was also prepared to refer to social workers should a participant get emotional describing their circumstance. I tried to concentrate on the topic and was careful with probing so as not to appear as a judge for their actions or mistakes. As a qualitative researcher, the key to successful interview is to show interest and appear non-judgmental (Braun, 2013). I continuously reflected on my position as a researcher, and not a judge and so I kept ethical issues in mind. To overcome this, I documented my observations, surprises and impressions in my field note after each interview. This approach enabled me to keep to my research roles and helped in subsequent interviews.

Dealing with the issue of hidden power relations. Even though I had dressed down and spoke the local language to identify with participants in the non-hospital centres, I observed the gatekeepers often eavesdropped in my conversations with the participants. The challenge here was the issue of trust. The gatekeepers in non-hospital centres were concerned I was probing their practice, or I could indict their model of pregnancy and delivery practice. I tried to explain particularly in my local language the intention of the study and assured them of my trust. Some of the participants also demonstrated the same trust issues in their responses; however, I reiterated the intention of the study, strictly used the interview guide. Even though there were instances where their ideas and practices triggered a tidal wave of shock and feelings of anger in me. I removed my judgement 'cap' in order to see through their preferences. I carried on in the conversations guided by the interview questions and focus on the topic. Sincerely, my supervisors' advice became very useful in every one of those situations.

Dealing with judgement of responses Oakley (2016) identifies the value of the relationship between two women in a face-to-face interview and the embeddedness in the data of the experiences that they share. I recognised some of the participants were reluctant to share how many doses of the vaccine they have had - maybe for me not to judge them regarding how good a mother they are or not. Recalling my experience of the interviews, while some pregnant women were proud to share their diligence with the use of vaccine, others showed worry in their responses to recommended doses and even asked question about the right number of doses. Oakley (2016) pointed to the hidden power in the researcher's question and the agency of the researched to respond. She argues the willingness of the researched to participate makes it a 'gift', in this case, a gift to respond and not necessarily a power relation between us. Ensuring a non-judgemental response and non-hierarchical relationship was important to get honest and authentic responses.

However, I still realised there was a potential power relation between us, especially in relation to my profession as a nurse/midwife. While this was not of much concern in hospital-based

setting, most of the participants in non-hospital settings had only secondary school education. Hence, in some of the pregnant women's questions regarding the recommended doses, they considered me as expert. I responded within the context of research ethics and let them know my response was as a researcher and not as a nurse, so I could not explain further the benefits and risks of vaccination. Typically, I referred them to the midwife and TBAs in charge in hospital-based and non-hospital-based settings respectively. I also chose to dress down, not looking official or expensive as the case may be, I communicated in my local language (Yoruba) mostly in the non-hospital-based settings interviews in order to minimise the potential for power imbalance.

Recognising my position. To some extent, my background as a Nigerian and mother of two gave me an advantage in a way that I was afforded a better understanding of many of the experiences shared of routine vaccination by the pregnant women. However, I was aware that my personal experience of furthering my education at a PhD level has influenced the development of my views of people of vaccination and general health behaviour. Therefore, despite considering myself an insider in relation to the inadequacy of the women I interviewed regarding vaccination, at the same time I considered myself as an outsider to their beliefs, perceptions, experiences, and relationships that inform their realities. As a mother, I am aware of my beliefs, concerns, and priority regarding pregnancy, so, I could relate with the participants 'experiences in this study. Yet I acknowledged pregnancy care experience, concerns, and beliefs are unique for everyone and as such was unable to place myself inside each of the participant's responses.

Also, keeping records or diaries of my observations in the field was crucial to mitigate against possible influence of my personal beliefs and previous knowledge. A reflexive account was important to the process of the difficulty of separating myself from the study when actually I was not separated from the study but ensured to reach a central point in order to limit the impact of total objectivity of the researcher on the study. Therefore, it is important to note that the researcher cannot be completely detached from the research because they both have the potential to impact one another. This is specifically mentioned in the study to demonstrate how subjectivity might be advantageous. The subjectivity of the researcher and the participants are considered an important part of the research process because of its underlying threat to the accuracy of the outcome of qualitative studies (Roller and Lavrakas, 2015).

I employed this self-reflection during the data analysis to enable me identify, construct, critique, and articulate my positionality (Holmes, 2020). I recognise my personal experience and my position in this study as a mother of two, my background as a nurse/midwife with the knowledge of what constitutes preventive health practices have directly or indirectly influenced

my interpretation of data in this study. However, I recognised the necessity of taking a deliberate step back and reflect on every aspect of the research activities in the field (Attia and Edge, 2017).

3.5 Research methods

Having discussed the theoretical underpinning and the research methodology, this section explains the research methods employed in this study to meet the aim of this study. I provide first, a description of the research settings, then the practical issues of recruiting the participants, sampling methods, data collection methods, and ethical issues related to the quality will be discussed. Finally, I present the process of data analysis.

3.5.1 The Study Setting

In this section, I will give a brief description of three antenatal care settings situated in semi-urban South-Western region of Nigeria where this study was conducted. In order to preserve anonymity of the study settings, I have named them settings A, B and C respectively. These settings provide the context of the places where pregnant women receive TTCV. Participants were selected across these settings in order to give room for maximum variation in data (Creswell, 2007).

Before I proceed into the description of the settings, I give an overview of models of health centres where pregnant women gather for antenatal or other forms of care during pregnancy in Nigeria.

In Nigeria, maternity care services are divided into three care levels, primary, secondary and tertiary (Omo-Aghoja L.O et al., 2010). Primary Health Centres are modelled to meet basic healthcare needs and it is expected that pregnant women receive antenatal, delivery and postnatal care in the centres closest to them. These centres are located in each of the 774 local government areas of Nigeria. However, in situations of pregnancy difficulties, referral is made to secondary or tertiary care centres managed by state and federal government respectively (Omo-Aghoja L.O et al., 2010) as the case may be.

Furthermore, there are alternate birth centres managed by religious centres and traditionalist, both of which are collectively called Traditional Birth Attendants (TBAs). According to the WHO, a TBA is a person who assists mothers during childbirth with skills acquired by delivering babies herself or through apprenticeship to other TBAs (WHO, 1992) .

Often times, TBAs do not have formal education or training to provide skilled health services, they only acquire skills by learning from relatives or by apprenticeship (Agbo, 2013). There are also other categories of health workers who train as apprentice, they include auxiliary nurses, Community Health Extension Workers (CHEW) and traditional midwives, many of which take home deliveries as they are perceived as 'skilled' (Aluko et al., 2019). These unskilled category of health workers are assumed to fill the space of government's inadequacies and particularly the TBA centres. They bridge the gap between formal and informal healthcare models (Ndidiama Amutah-Onukagha et al., 2017). For clarity, this study has looked into factors that influence the pregnant women's decision to seek antenatal care and deliver in a variety of birth centres as well as their general health seeking behaviour during pregnancy (Akeju et al., 2016, Ebuehi and Akintujoye, 2012). However, the scope of this study is the perception of the pregnant women of their routine vaccination experiences in these centres - formal and informal.

Characteristics of settings	Setting A	Setting B	Setting C
Type of care rendered	Hospital based care	Faith-based care	Tradition-based care
Classification of level of care by government	Secondary and Tertiary care	Unclassified (Primary Health Care centres in local governments function for primary care)	
Classification of skill	Skilled School trained and certified	Unskilled Apprenticeship training	
Socioeconomic status of users	High, middle, and low-income	Majorly low-income	
Educational status of users	All levels of education	Majorly low level of education	

Table 3.1 Characteristics of the study settings at a glance

Setting A is predominantly a referral and teaching centre, however, women across socio-economic levels working within and outside the health institution use the centre as either out of pocket expenses or institutional insurance scheme. The selection of this setting was based on the variety and class of women patronising the centre as well as the context of the standard

of care that the centre offers. Currently, the centre holds antenatal clinics two days a week conducted by professionals including midwives and obstetrics and gynaecology specialists. However, the number of pregnant women who attended the clinic during the recruitment phase of this study were not many compared to the other centres. This explains the report that shows that more than 50% of women deliver their babies outside of hospital facility (Adedokun and Uthman, 2019) and most rural women show preference for tradition/informal care more than they do for formal antenatal care services (Sadiq Umar, 2017).

Setting B is collectively two faith-based birth centres operated by different church denominations – Christ Apostolic Church and Cherubim and Seraphim Church, both of which are referred to as mission homes. As earlier mentioned, they are collectively and officially recognised as TBAs, however, the mission home midwives in this study preferred to be addressed as MBA (Mission Birth Attendant) dissociating themselves from deep traditional practices that traditionalists are known for. Community members commonly address them as ‘mission’. Mission homes are owned by religious bodies and maternity care services are mostly conducted by wives of the pastors in charge. They offer pregnancy care to both church members and non-members across socio-economic class. Pregnant women gather every week in the church building for ‘antenatal’ which often focuses on use of holy water, singing, testimonies and prayers around safe delivery. According to Oni-Orisan (2017) in their study on the role of religion in maternity care in Nigeria, they argue for the transformation of religious practices in relation to maternity care. On the contrary, TBAs collectively seem to complement government’s shortcomings (Ndidiyama Amutah-Onukagha et al., 2017) and over the years have gained the confidence and trust of rural community members (Akeju et al., 2016, Ebuehi and Akintujoye, 2012), and so they had the highest number of participants in this study. The mission centres in this study are two of the many first Nigerian Pentecostal churches that grew from the advent of Pentecostalism in the 20th century missionary drive (Oni-Orisan, 2018, Oni-Orisan, 2017).

Setting C is typically a traditional centre also in the category of TBA centres. They are operated by either male or female traditionalists. However, most TBA centres are run by middle-aged or older women who have grown up children and have lived a long time in the community. They are highly respected in their roles as rural community midwives (Ndidiyama Amutah-Onukagha et al., 2017, Akeju et al., 2016). TBAs take deliveries for many women in Nigeria like in other developing countries for reasons such as cost, trust, and traditional practices (Akeju et al., 2016, Idris et al., 2013, Ebuehi and Akintujoye, 2012). According to Ebuehi and Akintujoye (2012) pregnant women who prefer TBA centres claim that TBAs are more compassionate in their care delivery compared to skilled healthcare workers in formal centres and that the services they provide are cheaper. They operate on flexible and different

modes of payment such as instalments or forms exchange with goats or palm oil (Akeju et al., 2016). They also allow pregnant women the practice of traditional birth culture which are deeply rooted traditional beliefs yet may include 'harmful' practices. Some of the traditional practices mentioned by participants in this study are specially prepared herbal concoction (*aseje*) and liquid concoctions (*agbo*). They claim it makes the baby strong and small for easy delivery. Also, TBAs speak local languages which earns them trust and respect from community members (Ahmed et al., 2010). Although research has found socio-economic status influenced health seeking behaviour of women in these centres (Idris et al., 2013), Tsala Dimbuene et al. (2018) argue that there is an over-generalization of the association between women's socioeconomic status and maternal health service utilization which can be misleading. This was evident in this study as patronage at this centre had a variety of class, although predominantly lower socio-economic class.

3.5.2 Access to research settings and its ethical considerations

Gaining access to a research setting and reaching some groups of research participants can be difficult and time consuming, particularly in the African context (Vuban and Eta, 2019). Accessing pregnant women in this study involved meeting with different 'gatekeepers'. Although my professional background paved the way in one of the settings as discussed earlier, accessing the other two settings was not as easy (Vuban and Eta, 2019).

I negotiated permission with the community head and local government authority. This required a lot of perseverance and patience to facilitate negotiations with gatekeepers in providing access to study participants, however, my 'insider' position eased the process. Communicating in local language seemed to have helped. Also being a local with an international studentship paved the way for me in one of the settings because it earned me some respect and support. However, I considered it intimidating in the other settings and as such I jealously protected my full identity. Instead, I came into the other settings through local government approval letter as an independent researcher.

Below, I highlight the process I undertook in gaining access to the three research settings and participants (Figure 3.3). I considered ethics crucial at every stage of the design procedure. Therefore, I reflect the ethical considerations as I discuss each of them. Obtaining ethical approval, both from University of Edinburgh and in Nigeria was the beginning of ethical considerations. I discuss below the other steps I followed to obtain data for this study and the ethical issues I considered.

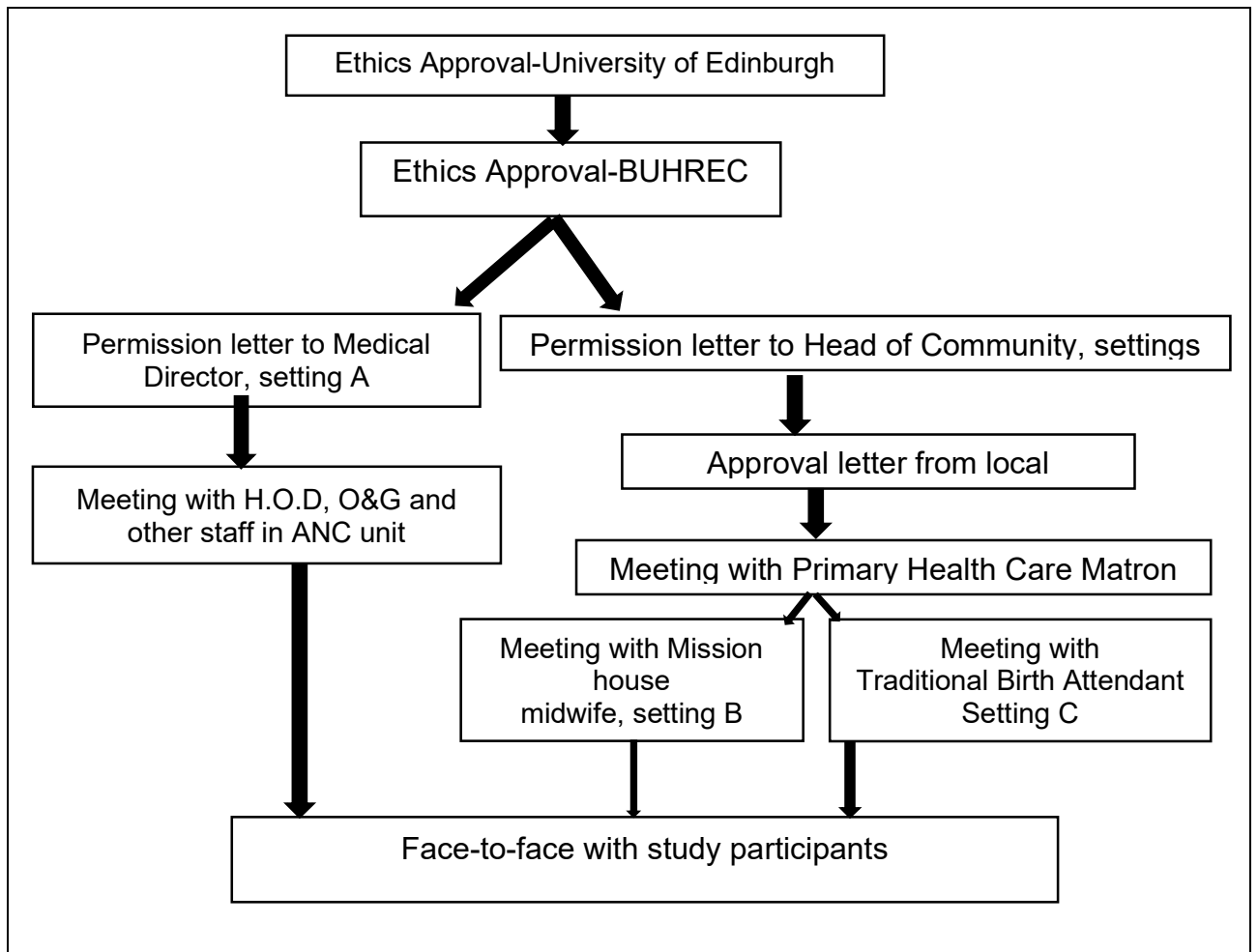


Figure 3.3: Gaining access and recruiting study participants

3.5.2.1 Ethical considerations

I obtained ethical approval to conduct this study from the University of Edinburgh (see Appendix I). For the three study settings, I had made preliminary contacts with the settings as part of the processes of gaining access to the participants.

For the formal antenatal centre participants, ethical approval was obtained from Babcock University - central ethical committee serving both the hospital and academic institution (see Appendix II). However, ethical approval for the informal centre participants was not as easy. I obtained a local government approval letter (see Appendix III) in addition to the ethical approval from Babcock University before gaining access to the participants. The local government approval letter involved meeting with Baale (Traditional King) and Iyalode (female chieftain) of the community. Personal contacts were made through gatekeepers to access the formal and informal antenatal centre participants. While only one gatekeeper was used in the hospital-based setting, four gatekeepers were involved in accessing the informal antenatal centres – Primary Health Care gatekeeper, two faith-based and one tradition-based

gatekeepers. This is because the PHC was involved in the link to the TBAs. The PHC provided the list of the TBAs and a staff to accompany me to the TBAs. Here, I observed the strong relationship between the TBAs and the PHC. I was indeed shocked to see the TBAs addressed as 'doctors' on the PHC's list of TBAs.

3.5.3 Recruitment of study participants

Existing studies showed there are several factors that encourage willingness of pregnant women to participate in health research. These include their interest, understanding and conviction about the study topic as well as the importance of the research to their health and that of the child (Gatny and Axinn, 2011). I envisaged possible reluctance of pregnant women due to hormonal imbalances and general discomfort that comes as pregnancy advances. All of these prepared me for the possibility of the participants being 'hard to reach'. Having been pregnant at some point myself, I knew I needed to offer incentives that would be worth the time of an 'uncomfortable' woman. This translated into budget for incentives for both gatekeepers and participants. While I could plan within an estimated budget, the many links to the informal participants cost more than the formal centre participants. The most difficult hurdle was access to the informal centre as there were many links before reaching the participants.

Contrary to my assumptions that the pregnant women may be hard to get to participate, I found the link to them more stressful, especially the informal antenatal centre participants. Once I gained access to the antenatal centres, I was able speak to the pregnant women in turns. I noticed most of the pregnant women were willing to participate because their care provider had spoken to them about the study. The challenge was I could only get to interview maximum of two participants at each antenatal visit because the pregnant women concentrated on their primary reason for coming to antenatal before showing up for other agenda. Nevertheless, I was able to move between antenatal centres depending on their clinic days, interviewing an average of three pregnant women per week.

3.5.3.1 Study sample

A purposive sampling technique was used to select participants in this study. I used this sampling method because of its flexibility to meet the purpose of the study. This was done with the support of the gatekeepers in both formal and informal antenatal centres. Purposive sampling facilitated the selection of participants who could provide information that are relevant to the research questions (Bryman, 2015).

The pregnant women who took part in this study varied in terms of age, educational level, occupation, number of pregnancies and number of children (see participants' information in Tables 3.2 and 3.3)

The sample included pregnant women from the following antenatal centre categories: a) hospital-based antenatal centre (n-16), b) faith-based antenatal centre (n-20), and tradition-based antenatal centre (n-5).

Total number of participants interviewed – 41.

The pregnant women that were recruited as study participants were selected based on the inclusion and exclusion criteria for the study. Patino and Ferreira (2018) defined inclusion criteria as the primary characteristics of the target population that the researcher will use to address the research questions. While exclusion criteria are the features of potential study participants who meet the inclusion criteria but have additional characteristic that could interfere with the success of the study or increase the risk for an unfavourable outcome. The criteria were necessary to identify not just the accessible but also qualified participants. There were two sets of inclusion and one of exclusion criteria used for the definitive confirmation of the appropriateness of the participants for the study. They are as follows:

Inclusion for pregnant women selected in formal antenatal centre.

- Pregnant women within reproductive age 15-49 years
- Pregnant women who are registered at the clinic
- Pregnant women from second trimester upward (most women register in their second trimester (Ebeigbe and Igberase, 2010) and would have had the first dose of TTCV)
- Pregnant women who have been attending regular clinics (pregnant women attending antenatal clinics on scheduled appointments)
- Pregnant women who can communicate in English or Yoruba languages

Inclusion criteria for pregnant women selected in informal antenatal centres (faith-based and tradition-based)

- Pregnant women within reproductive aged 15-49 years
- Pregnant women who have been attending the centre
- Pregnant women from second trimester upward
- Pregnant women who can communicate in English or Yoruba languages

Exclusion criteria

- Pregnant outside reproductive age of 15-49 years
- Non-pregnant within reproductive age
- Pregnant women in early stage of pregnancy
- Women attending post-natal clinic
- Women attending other obstetrics and gynaecology clinic
- Pregnant women who cannot communicate in English or Yoruba languages

Table 3.2 Formal Antenatal Centre Participants' Information

S/N	Pseudonyms	Age	Level of Education	Occupation	Number of pregnancies	Number of children
1	Moji	32	National Diploma	Pharm. Technician	2	None
2	Obioma	26	Master's	Administrator	1	None
3	Ebube	39	Bachelor's	Nurse	3	None
4	Josephine	37	Bachelor's Chattered Accountant	Accountant	3	1
5	Funke	30	National Diploma	Fashion Designer	6	1
6	Roseline	39	Bachelor's	Trader	5	2
7	Kenechukwu	27	Bachelor's	Teacher	3	1
8	Omowunmi	29	Bachelor's	Trader	3	2
9	Bunmi	33	Master's	Accountant	3	2
10	Irene	28	Bachelor's	Nurse	2	None
11	Anita	30	Bachelor's	Nurse	2	1
12	Emel	31	Bachelor's	Nurse	2	1
13	Mary	29	Junior High school	Trader	4	3
14	Kehinde	33	High school	Trader	6	3
15	Amarachi	30	High school	Administration assistant	2	1
16	Arike	28	Master's	Teacher	1	None

Table 3.3 Informal Antenatal Centre Participants' Information

S/N	Pseudonyms	Age	Level of Education	Occupation	Number of pregnancies	Number of children
FAITH-BASED CENTRE PARTICIPANTS						
1	Bolanle	33	High school	Fashion designer	1	None
2	Oluwaseun	34	National Diploma	Trader	3	2
3	Eniola (Mrs)	29	National Diploma	Fashion designer	3	2
4	Iyabo	34	High school drop out	Trader	4	3
5	Adeoye	26	High school	Fashion Designer	2	1
6	Ayomipo	26	High school	Housewife	2	1
7	Balogun	Unknown		Trader	5	4
8	Alani	27	High school drop out	Trader	3	2
9	Tutu	32	High school	Hairdresser	5	4
10	Opeyemi	19	High school drop out	Apprentice hairdresser	1	None
11	Deborah	33	High school	Hairdresser	4	3
12	Adejoke	25		Fashion Designer	1	None
13	Eniola (Miss)	20	High school drop out	Hairdresser	1	None
14	Seun	22	High school drop out	Apprentice fashion designer	2	1
15	Adenike	33	High school	Photographer	1	None
16	Adetutu	20	High school	Photographer	1	None
17	Temitope	21	High school	Hairdresser	1	None
18	Aishat	19	High school	Fashion designer	1	None
19	Bose	37	High school drop out	Fashion designer	4	3

20	Adesewa	26	High school	Apprentice fashion designer	1	None
TRADITION-BASED CENTRE PARTICIPANTS						
1	Tope	26	High school	Hairdresser	1	None
2	Ibukun	34	National Diploma	Housewife	4	1
3	Taiwo	39	National Diploma	Teacher	3	2
4	Maria	22	High school	Photographer	1	None
5	Oriyomi	30	High school	Fashion designer	1	None

3.5.3.2 Informed consent

There were disparate literacy levels across the antenatal care settings. While both formal and informal antenatal centres had participants who could read and communicate in English language, participants who were comfortable in Yoruba language were seen at both centres, with the formal centre having the higher literacy level. Therefore, the consent form was designed in English and Yoruba languages (see Appendix IV & V). There was also the option to audio-record verbal consent for participants who are not able to read or write, hence consent was taken for all the participants.

The participants were also intimated about data protection and confidentiality. The process of providing adequate information and obtaining informed consent provided the assurance that the participants were not coerced in any way. The participants' rights were respected by upholding the principle of autonomy that participation was voluntary, and they could withdraw at any time (Ritchie et al., 2014).

3.5.4 Data collection methods

This section gives an account of the method of data collection and how it was implemented. In-depth semi-structured interviews were used to collect data in this study. This method has been demonstrated to be an effective means of exploring worldviews of healthcare users from their points of view (DeJonckheere and Vaughn, 2019). In-depth interviews are used to develop a fuller picture of the respondent's point of view (Flick, 2018) and find out what is "in and on someone else's mind" (Patton, 2015 :426).

Data collection using in-depth interviews commenced 16th October 2019 with formal antenatal centre participants in setting A, and data collection lasted about 5 months on a full-time basis. The data were collected based on participants' availability. The informal antenatal centre recruitment and data collection was delayed by two weeks because of the bureaucracy of local government approval.

The participant demographic data varied as outlined in Tables 3.3 and 3.4 and information covering demographic details is in the interview guide (see appendix V). The age range of the participants was from 19-39 years old. In terms of educational levels, while the use of formal and informal antenatal centres spanned all levels of education, the majority of those with higher-level of education used formal antenatal service; more than triple the proportion of participants in informal centres. The number of pregnancies and children alive showed that more than 80% of pregnant women have had more pregnancies than the number of live births.

3.5.4.1 Conducting individual face-to-face semi-structured interviews

I commenced the interview series with a pilot test. This was helpful to identify the inadequacies in the interview guide (Majid et al., 2017). While the 'guiding' questions listed for the interview exercise were found effective towards the aim of the research, the pilot test interview prompted me to list additional probing questions to explore the pregnant women's experiences and perceptions in more detail. I conducted a total number of forty-one interviews with 16 and 25 participants in formal and informal centres respectively.

I found individual interviews appropriate for this study because it gave the chance to probe the individual experiences of the pregnant women regarding vaccination. According to Opdenakker (2006) individual interviews takes advantage of social and non-verbal cues, providing the interviewer with a lot more information through body language, voice, and tones, supplementing the participants' verbal responses. These cues including their silence, nods, and smiles were valuable for probing and exploration of experiences and perceptions, and it also gave me clues about the process of the interview. I invited only participants who indicated interest in the study into the interview room/space, however, there was a situation when two participants declined to be interviewed after reading the participant information sheet. This was on the ground that they needed to seek their partners' consent before they could be voice recorded. Individual interviews gave information regarding the countenance of the participants, their willingness to share their experiences and the sincerity of their realities.

I adopted this method because the individual interview questions were less structured. Semi-structured interviews according to Kvale (1996) are loosely sequenced questions. I selected participants who were forthcoming and willing to share personal experiences of vaccination, however, not all the selected interviewees made great participants. Some of the participants

found it hard to share some information that they found personal. For example, question around the progress of their pregnancy and due dates got different forms of responses. However, I concentrated on the topic, asking about their thoughts and experiences of pregnancy routines including vaccination.

3.5.4.2 Interview guide

The list of 'guiding' questions was partially structured. I chose to perform semi-structured interviews because the format allows for flexibly worded phrases, with a list questions to be explored within the boundaries of the topic of interest (Merriam, 2015). I found semi-structured interviews to be conversational and interactive, and it provided the opportunity to exchange thoughts with the participants so that responses are deep and meaningful (Flick, 2018). The questions were direct, and the conversation started and followed up with prompts. Some of the questions asked were: "what things have become necessary to you in this pregnancy? And why?" "In your own opinion, what can you say about vaccines?". The questions were open-ended and formulated based on the research aims and objectives. The interview guide was translated into Yoruba language for the informal antenatal centre participants and back translation was done to make sure the translation's meaning was accurate and that it made sense in both the intent language and the original (Maneesriwongul and Dixon, 2004, Chen and Boore, 2010).

3.5.4.3 The Interview Process

During the interviews, I observed some of the participants had more experiences regarding their pregnancy routines including vaccination and were more willing to share this, compared to other women. I explored the participants' experiences based on this during the interviews. Each interview lasted an average of 45 minutes (Jacob and Furgerson, 2012). I had the most engaging conversations with some of the informal centre participants, possibly because they had more to share about their cultural beliefs than vaccination itself.

The interviews were conducted mostly in enclosed and safe environment for the participants, where they could relate freely with the interviewer, create shared meaning, interpretations, and understanding of pregnancy routines including vaccination behaviour through their statements, opinions and experiences of vaccination without any fear of reprisal (DeJonckheere and Vaughn, 2019, Josselson, 2013). Safe times and places were provided within the church premises and traditional centres for informal antenatal centre participants while a procedure room within the antenatal clinic was provided for the formal centre participants. All the venues used for the interviews were quiet and conducive for conversations (McGrath et al., 2019). I ensured there were no interruptions and distractions, even though in

one of the faith-based centre, the local midwife sneaked in to eavesdrop on our discussion. I assumed she did that to protect the interest of their model of health practice.

Appointments for interviews were made to suit the participant's time. The sitting arrangement facilitated face-to-face interviewing, and I recorded the voice of the participants after obtaining their consent (Illing, 2013). Two pregnant women who had agreed to participate declined because of their realisation that they would be voice recorded.

I ensured the interview rooms were conducive for conversations and that the seats and tables were in proper positions and comfortable to sit before the participants arrived. The participants and I sat at eye contact level. I introduced myself to the participants at the beginning of each interview and asked them to do the same with their names, ages, and other biographical information. The issues of consent, confidentiality, anonymity, and voice recording were discussed with the participants. I took notes only before and after the interviews, I did not take notes during the interviews, rather, I recorded the conversations, and actively listened (McGrath et al., 2019). The purpose of recording was to ensure that I concentrated and not omit important points throughout the discussions (Bryman, 2012). I explained to the participants the aims and objectives of the study and why their honest view about their experiences of vaccination was important to achieve these goals. However, after each interview, I wrote down my reflections, thoughts, and observations in my research journal.

The process of the interviews went smoothly, and it was a positive experience for the pregnant women as well as for me. Some of the pregnant women expressed that they were happy they were able to express their feelings, views and experiences of vaccination and related pregnancy care routines with other forms of care. It was a positive experience for me because my initial thought was whether surging moods of pregnancy may come to play and because of the culture of secrecy in Nigeria, I was not sure pregnant women would open up on their health routines including vaccination to a stranger like me.

At the end of each interview, I asked what each participant felt about our conversations and their responses gave me insight into the vaccination information needs of pregnant women and what the women's priorities really are. While most of the participants expressed that taking part gave them the opportunity to express their displeasure regarding certain maternal care services, others asked about the recommended doses of tetanus vaccine.

3.5.4.5 Translation and Transcribing

I translated the interview guide and transcribed the interviews both in English and Yoruba languages. In Nigeria, the official language of communication is English, hence, the interviews were conducted in English language for most of the formal antenatal centre participants, while

the Yoruba language was mostly used for the informal centre participants. This was adopted to avoid excluding the views and experiences of the informal centre participants who were not able to communicate in the English language.

Translation began with the interview guide, translating from English into Yoruba language before the interviews. In addition, I employed the assistance of a bilingual translator who ensured wordings that represented context in its original language source and intended meanings were used. Translation was done in a side-by-side approach after anonymising the data during analysis. The procedure that is used to test the accuracy of translation and detect errors in translation in research involving two or more languages is called back translation (Brislin, 1970). According to Chen and Boore (2010), back translation is necessary to achieve rigour and trustworthiness in research. I worked closely with the bilingual translator to ensure the adequacy of the meaning of the translations that were done. Although the procedure is costly in terms of both money and effort, having an accurate and reliable data was worthwhile.

Transcription was the first phase of the analysis where I organised the collected data and assigned pseudonyms to all the transcripts. This was done by putting into writing, exact word for word the accounts of the spoken words of all the participants in the study. At the same time, I translated some of the data that were collected in Yoruba language. The non-English data were not contracted to a bilingual expert because I needed to engage my interpretive insights and not a literal translation. This phase began the process of immersion into the collected data and gaining an overview of the entire data.

3.5.4.6 Data management

Data management as a process of “keeping the whole project in mind” and organising data (Flick, 2018 pg.444) is tightly bound up with, and focused on the aspects data collection and analysis which are not so distinct in a non-linear process (Huberman and Miles, 1994). In this study, I started to analyse while collecting the data, when ideas started to emerge during the interviews and while I was transcribing.

I transcribed all the individual interviews verbatim as soon as possible following each interview by repeatedly listening to the digitally recorded conversations and made notes of my reflections. The process of repeatedly listening to the recorded interviews brought about familiarity with the data which is important as it enabled me to gain an overview of the main content in the data and identify topics and subjects that relate to pregnant women’s vaccination practice.

As a novice researcher with little experience of data management, I went through a training course on the use of NVivo 12 software, a Computer Assisted Qualitative Data Analysis (CAQDAS) used for organising, sorting, and coding text-rich data. CAQDAS packages provide access to a range of powerful research tools and they facilitate the management of multiple tasks to help with data analysis (Fielding et al., 1998). The NVivo 12 software was useful in managing my analytical thoughts and in storing documents that related to the study.

3.6 Data analysis

Analysis of data in this study was done concurrently with the data collection even though I present it as the last phase of the research methodology. The process was cyclical and iterative, involving a systematic, repetitive, and recursive process of getting answers to the research questions (Mills et al., 2010). I explored the experiences of pregnant women in formal and informal antenatal centres in order to identify the influence of their experiences on their RVP. I also explored the differences and similarities in the accounts of the pregnant women in formal and informal antenatal centres in order to identify the influence of their socioeconomic status (SES) on their routine vaccination practice RVP. Thorne (2000:68) describes qualitative data analysis as “the most complex and mysterious of all of the phases of a qualitative project”. Reflecting on my experience of data analysis in this study – the overflow of text to transcribe and translate, the plenty of reading and re-reading for interpretation and meaning and the struggle to articulate some interesting findings, I absolutely agree with Thorne’s view. Ritchie et al. (2014:270) further describes analysis as an exciting yet challenging phase of the qualitative research process which “requires a mix of creativity, systematic searching, inspiration, and diligent detection”.

The analytic process followed in this study is Braun and Clarke (2013)’s thematic analysis. Thematic analysis is a flexible analytic approach that can be easily understood by early career researchers (Braun and Clarke, 2013). This method of data analysis has been used for the analysis of semi-structured data in healthcare research in a study that was conducted with the aim of exploring pregnant women’s values and socio-cultural beliefs regarding preferred model of birth (Latifnejad Roudsari et al., 2015). I adopted this method as the technique to manage and analyse the data collected using Braun and Clarke (2006)’ six step-by-step guide.

- Familiarising with data
- Generating initial codes
- Searching for themes
- Reviewing the themes
- Defining and naming the themes
- Producing the report

3.6.1 Familiarisation with the data

Braun and Clarke (2006) point to the importance of immersing oneself in the data to the extent of becoming familiar with the depth and breadth of the content or transcripts. The process where the researcher gets the sense of what is going on in the data. The actual process of my familiarisation with data started as soon as I entered the study settings, familiarising with the environment and began interviews with the pregnant women. This prompted the formulation of my thoughts about the context and the pregnant women's interaction.

I commenced analysis of the study by transcribing the audio-recorded interviews while in the field. During the interviews, as the pregnant women related their thoughts and experiences, I continuously involved myself in exploring and analysing their narratives. I developed the analysis and immersed myself in the iterative process of moving back and forth across the data. This recursive process continued for a while and at some point, I had to move away from the data so as to have a fresh understanding of the women's narratives. Here, I made my initial impressions and thoughts as I transcribed. I read and re-read the transcripts as well as my reflective notes in order to be fully immersed and familiar with the data. To ensure accuracy, I checked the type-written transcripts against the audio-recordings for any errors (Braun and Clarke, 2006).

Although the process of transcription, reading, and re-reading was exhausting, boring, and time-consuming, it was an important part of the analysis that helped me gain an understanding of the pregnant women's thoughts and experiences of vaccination. According to Gale et al. (2013), becoming familiar with the audio-recorded conversations and the contextual or reflective notes taken is particularly important in interpretation and meaning in the study. While reading and re-reading the interview data, I started to notice some words that were of interest to me in their narratives, which I felt related to the research aim and questions. This process assisted to shape my thoughts as I became immersed in the data which facilitated the identification of emerging themes without losing connections with the original concepts and context (Braun and Clarke, 2013). Here, I started to structure my ideas and thoughts in preparation for coding, which is the next stage of the analysis.

3.6.2 Generating codes

Gale et al. (2013) define a code in qualitative research as a descriptive or conceptual label that is assigned to excerpts of raw data, and coding as the process of assigning labels to raw data. Codes at this stage are a means of organising data which are used later in a more analytic way to provide building blocks for the analysis and at the same time, reflect the theoretical interpretation of the data (Braun and Clarke, 2013). Generating codes starts after

familiarising with the content of the collected data and it involves identifying aspects of the data that relate to the research aim and questions (Braun and Clarke, 2013). After familiarising with the data by reading and re-reading, I began to read line by line to manually highlight and assign labels to sentences that I interpreted as meaningful.

I initially generated more than 400 codes after inductively analysing data in the first set of interviews because I considered everything to be important and I was concerned not to lose any important information. The process was overwhelming and lengthy that I felt lost and drowning in it. Being a novice researcher, I felt comfortable using word document print out to manually highlight interesting topics in the transcripts as they emerged. While I had planned to code with NVivo 12, I realised it was a huge task trying to learn the basics of coding, use a software analysis tool, and at the same time, carry out qualitative analysis. At that point, I agreed with Creswell (2013) that the researcher, and not the software does the coding and categorising. Therefore, I analysed using both manually and with NVivo 12 software (Adu, 2019). As a first-time user of the software trying to master the skill, I printed five transcripts and wrote the codes in pen. This assisted me in gaining a level of confidence with process as well as having control and a sense of ownership of the work. When I observed that the codes were beginning to align with the narratives of the participants, I transferred codes from the previous transcripts into NVivo 12 and continued with the rest of the data. I read through the data and the generated codes to understand why the codes had been interpreted as meaningful and useful for answering the research questions. This was important to ensure my own perspective and subjectivity are not dominant in the analytic process. Following this, the numerous codes were grouped together into categories to form themes.

3.6.3 Searching for themes

Based on the list of codes that were generated from the data set. I began to sort and arrange the codes into potential themes and collated all the relevant codes within the identified themes. Similar codes were grouped together into sub-themes (Braun and Clarke, 2013). This phase brought about orderliness to the volume of codes that were generated. Codes that fit together were grouped and labelled as such to ensure that the categories matched the data. I looked for the links between the codes and separated those codes that did not fit to stand alone as miscellaneous. By so doing, I was able to recognise relationships, patterns and themes that ran through the categories (Braun and Clarke, 2006). The sample of an initial theme with different codes is illustrated in Figure 3.4. The theme shows from the interview transcript the pregnant women's general ideas of routine tetanus vaccination in different antenatal centres.

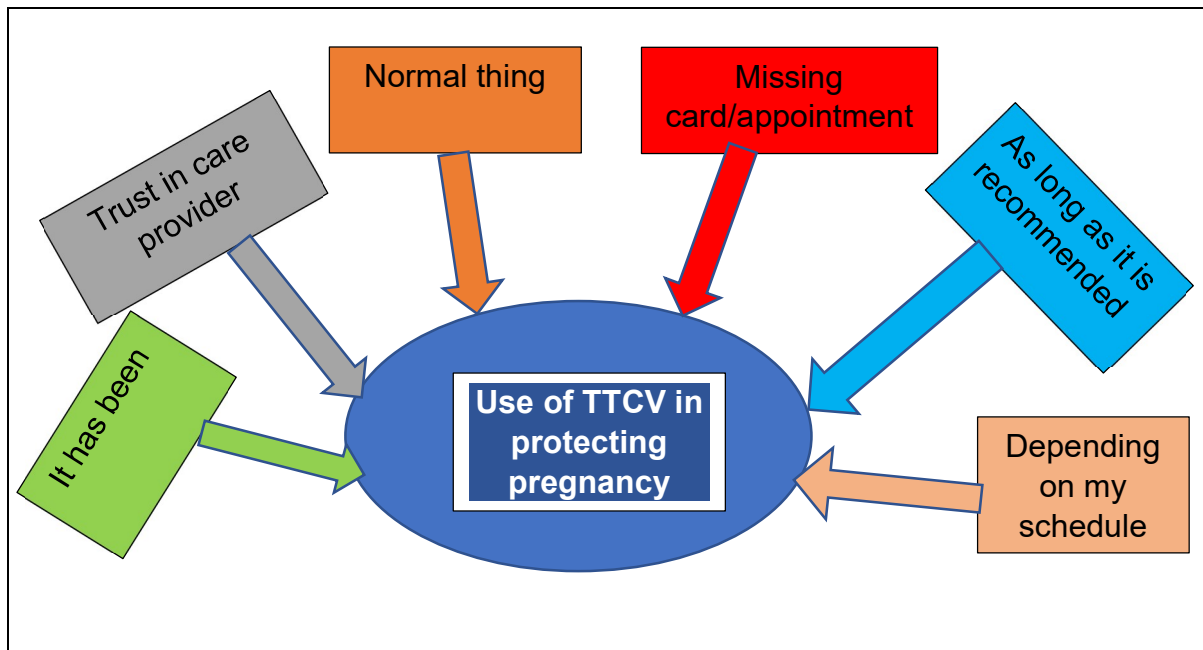


Figure 3.4 Sample of an initial theme

3.6.4 Reviewing themes

During this phase of the analysis, themes formed from the initial codes were reviewed for accuracy and suitability. Some of the themes without enough code extracts were repositioned while some were put aside. By doing this, some codes were better positioned under other themes and some other themes were broken down into separate themes. The themes were reviewed in relation to the research aim to ensure the themes accurately provided information about the generated data. This process of refinement continued until a satisfactory thematic map was achieved (Braun and Clarke, 2006).

3.6.5 Defining and naming the themes

At this stage of the analysis, the themes that emerged from the collected data were satisfactory. The themes clearly showed the part of the study they focused on and were clearly defined. At the same time, it was important to ensure the themes did not capture too much or complex information in order not to render the themes overcomplicated. This was achieved by checking the themes against the collated data extract, identifying the 'story' that each theme tells and how they fit into the broader overall 'story' that the data is conveying in relation to the research aim and questions. I identified the most prominent themes and those necessary for understanding the influence of social and structural issues on the perception of pregnant women on routine vaccination. For example, the theme titled 'relational influences on

vaccination' (Figure 3.5) emerged from the analysis as a theme because it was the central concept around which other sub-themes revolve to give the overall information about the data collected in relation to the research question.

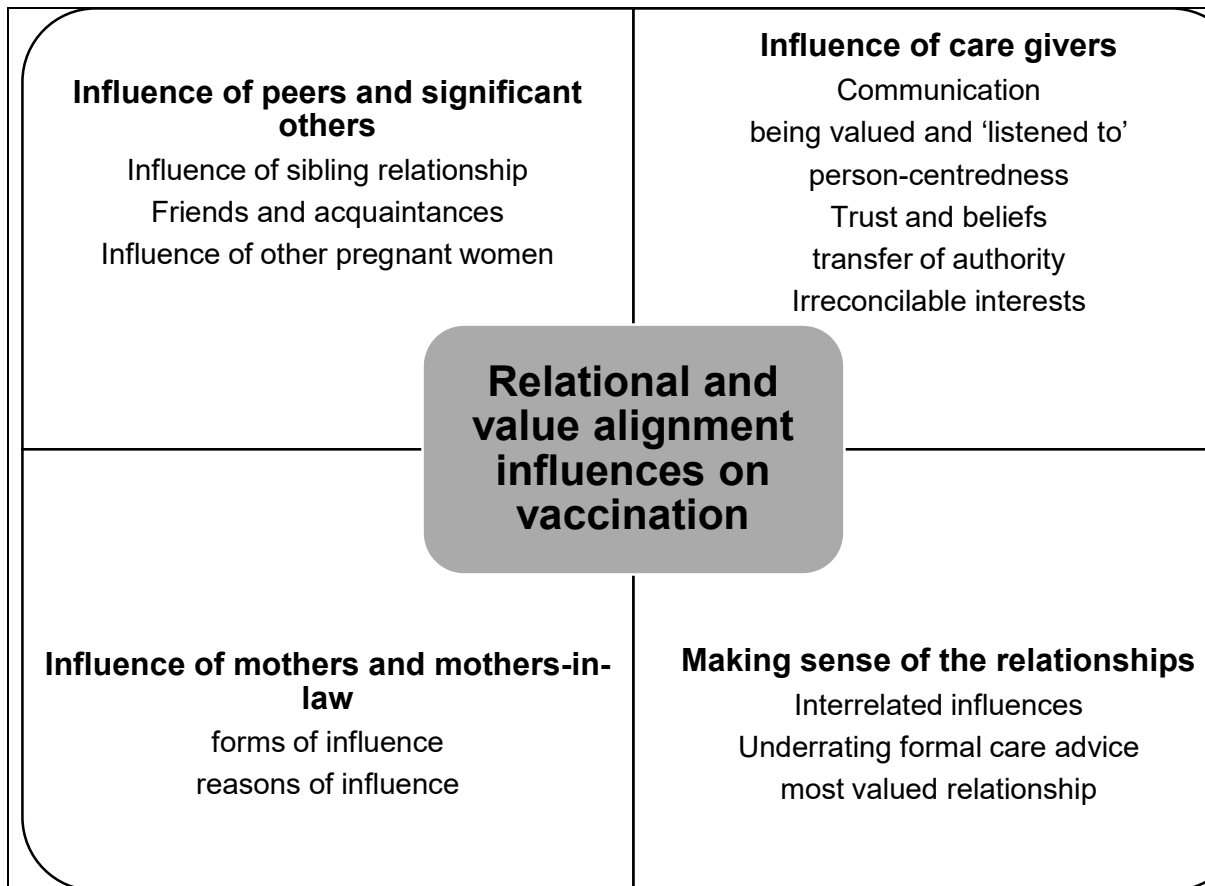


Figure 3.5 An overview of thematic structure

3.6.6 Reporting findings

This final phase was where the themes were sorted and findings from the analysed data are ready to be reported. The write up of analysis in this study also included data extracts or quotations which were used to support interpretations and explanations presented in the findings (Yin, 2015). The findings chapters provide concise, coherent, logical, non-repetitive and interesting accounts of the story that the data tells within and across the themes (Braun and Clarke, 2006).

The aim of this study was to explore how pregnant women in different antenatal centres perceived routine vaccination and to examine factors which influenced this perception. The data collected and analysed reports three main themes namely, position-taking in antenatal centres, relational influences on vaccination place, and 'playing by the rules' in preferred antenatal centres with routine tetanus vaccination. This is presented in the findings chapters.

3.7 Ethical Issues and Consideration

In any kind of research, the protection of human subjects or participants is imperative. Ethics refers to doing good, preventing, or reducing harm through the application of ethical principles (Orb et al., 2001). They are essential parts of rigorous research and are intertwined with the researcher's way of doing research (Davies and Dodd, 2002). The way of thinking about ethics in this study rests mostly with the approach to conducting interviews with the pregnant women. The pregnant women that were interviewed were all different, as were the contexts in which the interviews took place, with some in hospital setting, others in churches, and some in traditional centres. Some of the ethical issues such as gaining access and obtaining consent have been discussed in section 3.5.3. The purpose of ethics consideration is to ensure truthfulness, openness, respectfulness, honesty, carefulness, empathy, engagement, and constant attentiveness (Davies and Dodd, 2002). This section presents how some of the key areas of ethical concerns research were approached.

3.7.1 Possible Benefits and Harms of the Study

An important aspect of ethical considerations in conducting a study involving human subjects is the researcher's duty to remove or prevent harm and promote benefits (Childress and Beauchamp, 2022). While there was no intention to cause any form of harm to others in this study, it was important to assess the potential risks associated with the process of gathering information or data collection. In this study, the major concern was related to interviews with pregnant women in a way that does not cause any form of guilt, fear, anxiety, and inadequacy. According to Rubin (2012), "your interviewees should be no worse off, and ideally should be better off, for having taken the time to talk with you" (p.89).

The interview guide was set out with open-ended questions with the expectation that pregnant women would not only discuss their present pregnancy but other routines, past experiences of vaccination which may include their observation of others. The possibility existed that pregnant women could feel anxious during the face-to-face interviews, as they had to reflect on their different experiences of routine vaccination, recalling information regarding risks and

benefits of vaccination as well as self-assess their own use of TTCV. Recounting these experiences could make the women feel inadequate in the ways that they carry out pregnancy care routines. Probing into pregnant women's privacy, their attitude, and vaccination behaviour could be judgemental to them, depending on their experiences with vaccination. Furthermore, most pregnant women in Nigeria are caught in the middle of the feud between formal and informal models of pregnancy care (Okafor, 2000) and they may not be willing to share their routines. This posed an initial concern about the possibility of the pregnant women opening up and providing information with no sense of judgement. I made the women aware that there were no wrong or right responses when discussing the ways that a person carries out their pregnancy care routines. Therefore, I demonstrated respect for their views and good communication skills that depicted the acceptance of their realities. This approach helped me to gain the confidence of the pregnant women.

According to Beauchamp and Childress (2019), the ethical principle of beneficence is to promote the health and general wellbeing of others. There were some benefits to the pregnant women who participated in this study. Rubin (2012) point to the possible benefits to participants when they share experiences in interviews. Some of the pregnant women were appreciative of the opportunity to share their different experiences of routine vaccination and the challenges of keeping up with the schedule. One of the advantages of being a woman who shares certain experiences of pregnancy with the participants is that I represented a person with the capacity to listen, understand, and acknowledge women's different realities. Indeed, many of the pregnant women expressed that they found the interviews enjoyable and worthwhile. The women interviewed in this study did not separate their experiences of vaccination from that of other related routines such as in food and general lifestyle, and those who have been previously pregnant constantly made comparisons. Previous experience of pregnancy and observation of others for those pregnant for the first time had a major influence in the women's conversations regarding vaccination. In the course of the interviews, the pregnant women would weave their experience of vaccination with the attitudes of care givers and compare their experiences of vaccination and other routines with the experience of other women they know, and so on. This was vital to the research as it gave me insight into how women make decisions regarding routines during pregnancy. Rather than strictly keeping to information regarding vaccination, the pregnant women were able to relate their different experiences of pregnancy routines including vaccination and from their own perspectives. The findings from such rich and interesting conversations should contribute to the development of appropriate intervention that identify the needs of pregnant women as well as meet the challenges faced by pregnant women regarding vaccination.

3.7.2 Confidentiality and Anonymity

To ensure confidentiality of the data for the pregnant women's participation in the study, all information were securely kept in back up files and data extracts were only used and shared after identifiable information regarding an individual had been removed. No information obtained during the study was shared or discussed with anyone outside the research team without each participant signing the permission form. In protecting the anonymity of the participants, pseudonyms were assigned to them in the interview documents. All written data were securely locked up and electronic data were password protected with only the research team having access. In due course, these data will be destroyed as specified by the committee protocol of the University of Edinburgh. All information in hard copy will be shredded and electronic copy will be erased from all electronic devices. The pregnant women were assured that the information gathered from them would be kept confidential and their identities would not be revealed in publications from this study.

3.8 Trustworthiness

Due to the contextually bound nature of qualitative research, achieving rigor and quality is described as ensuring that the research design, methods, and conclusions are replicable, open to critique, explicit, and free of bias (Johnson et al., 2020, Leung, 2015). Seale and Silverman (1997) argue that even though the issue of rigor in qualitative research is not as readily categorised as it is in the case of quantitative research, a variety of methods have been designed to achieve this. Lincoln and Guba (1985) in their book *Naturalistic Inquiry* outlined four criteria for establishing the overall trustworthiness of results in qualitative research – credibility, transferability, dependability, and confirmability.

3.8.1 Credibility

Mills et al. (2010) define credibility as “the degree to which a research account is believable and appropriate with emphasis on the level of agreement between the researcher and participants in the study”. This study utilised three techniques to establish its credibility – prolonged engagement, member checking, and peer debriefing.

Conducting in-depth individual face-to-face interviewing gave me the opportunity of prolonged engagement where I was engaged in the research settings for a period of six months. The period was long enough for me to pay attention to the pregnant women's interest, understand and interpret their practices and context as well as account for any variances that might have occurred in the data. Prolonged engagement is considered critical to producing credible findings (Lincoln and Guba, 1985). The process allows a researcher to establish rapport with

participants over time, thus, building trust with the pregnant women in the antenatal settings. Cope (2014) asserts that building trust and rapport with participants encourages rich and detailed responses from them. By being in the antenatal centres on most antenatal clinic days, the pregnant women became familiar with my presence and so, I was not particularly strange to them when they were invited to participate in the study.

Another technique used to establish credibility in this study is member checking, which Onwuegbuzie and Leech (2007) also refers to as informant feedback – a standard of rigour in qualitative research. They describe it as a practice that involves asking a research subject to verify the transcription of interview, verify the completeness and accuracy to ensure the transcript truthfully reflects the meaning and intent of the subject's contribution. Member checking is the process “whereby data, analytic categories, interpretations, and conclusion are tested with members of those stake holding groups from whom the data were originally collected” (Lincoln and Guba, 1985 :314). It is a crucial technique for establishing validity and credibility and can be done formally or informally (Lincoln and Guba, 1985). In this study, an informal member checking was carried out with the participants during the interviews. This was done through deliberate probing and summarisation, repeating information back to the participants. This helped to confirm with the participants that I understood their responses as we also co-constructed meanings.

The last technique employed to establish credibility was a peer debriefing. The purpose of peer debriefing is to ensure the collection of accurate data by the researcher knowing the process and the status of their posture (Lincoln and Guba, 1985). According to Onwuegbuzie and Leech (2007), a peer debriefer plays the role of a devil's advocate, keeping the researcher honest by posing difficult questions about the procedure, meanings, and interpretations. Peer debriefing in this study was done by my research supervisors. I shared the data transcripts with them, and they provided me with an objective view of the quality and content of the data.

3.8.2 Transferability

Establishing transferability is concerned with the degree to which the results of qualitative research can be used in different contexts or settings (Lincoln and Guba, 1985). Thick description is suggested to be used as the main technique to achieve this outcome where findings may be transferred to another setting because of shared characteristics (Onwuegbuzie and Leech, 2007, Lincoln and Guba, 1985). In order to enhance transferability in this study, I provided extensive detail about the research settings, methods, participants,

and the assumptions that are central to the study, which allows a reader to form their own judgement of whether the findings may be applied to another setting with similar experience.

3.8.3 Dependability

Dependability is about the consistency or stability of data over time (Lincoln and Guba, 1985). To ensure dependability, the researcher has to be transparent and detail in reporting the research method such that a reader can determine that a proper research process has been followed and that a future researcher can repeat the study (Johnson et al., 2020, Shenton, 2004). The strategy employed to achieve dependability in this study was an audit trail. An audit trail involves maintaining an extensive and careful documentation of all aspect of the study (Onwuegbuzie and Leech, 2007). Safe and secure protection of data and assurance of confidentiality was an audit process that aimed to enhance dependability in this study. Lincoln and Guba (1985) referred to it as fiscal audit.

3.8.4 Confirmability

Confirmability refers to the degree to which data collected is neutral and accurate, or more commonly, to what extent the findings may be confirmed by others (Lincoln and Guba, 1985). The researcher ensures that they communicate to the reader that the results are reflective of the information gathered from the participants and not on the researcher's bias (Johnson et al., 2020). To enhance confirmability in this study, I constantly communicated and shared all the themes as they emerged and their connections in the form of peer debriefing with my supervisors. I also reduced my influence on the study by using personal reflection to critically reduce my influence on the findings (Nowell et al., 2017).

3.9 Chapter Summary

In this chapter, I have provided a detailed discussion of the research design and method, including the ontological and epistemological positions underpinning the study. I have shown how interpretative qualitative research fit as an approach to answering the research questions while I also examined my position in the study. Following this, I outlined the research methods that I employed in the study; the research settings, participants' recruitment, data collection and analysis were presented. To conclude, I discussed in the last section ethical issues related to the study and trustworthiness.

CHAPTER FOUR

MAKING ANTENATAL CENTRE PREFERENCES

4.1 Introduction to findings

In this chapter, I analyse the theme: making antenatal centre preferences – to answer the question on pregnant women’s experience of how they make the choice of the place to seek antenatal care including vaccination with TTCV. This theme sets the context to describe the field or place of the pregnant women’s experience of antenatal care routines including routine vaccination practice (RVP) using the theoretical work of Pierre Bourdieu (1990). I present the pregnant women’s discussions and experiences of the strategies deployed to arrive at their preferred antenatal centre (PAC) where they engaged with routine vaccination. This revealed two important aspects of routine vaccination practice of the participants: a) the pregnant women’s vaccination practice is shaped much more strongly by the model of care in their preferred antenatal centre (PAC) rather than individual decision to use vaccine; and b) the pregnant women’s decision about the place of vaccination, that is, their PAC lies not only in their knowledge of the antenatal care centres but in the interface of the women’s PAC and socio-structural forces. I will present, according to the pregnant women’s narratives, the process of the emergence of their PAC to reveal the extent to which the pregnant women were involved in the decisions to distinguish their interests in the different antenatal centre models.

4.2 Making antenatal centre preferences

The first findings describe the evidence from pregnant women about a situation during pregnancy where the decision about how to conduct pregnancy care and register for antenatal care which seemed to be an autonomous decision is driven mostly by the pregnant women’s experiences and perceptions of antenatal centres. According to Izugbara and Wekesah (2018), the perceptions of women of quality maternal health services determines the outcome of their choices regarding maternity care, especially due to the complexity of their needs in a pluralistic maternity service system. This theme will explore the pregnant Nigerian women’s experience of preferred antenatal centre in a system of different models of antenatal care. The analysis will describe how the pregnant women made their decisions regarding antenatal centres to distinguish between the formal and informal centres and what attracted them towards their preferences, and of particular relevance, why certain groups of pregnant women prefer not to use certain antenatal centres. This process of antenatal centre decision making to exercise antenatal centre agency make up the following subthemes: a) struggle of the

emergence of preferred antenatal centre b) objective and subjective influences of antenatal centre preferences and c) negotiating antenatal centre preferences.

4.2.1 Struggle of the emergence of preferred antenatal centre

This subtheme labelled the struggle of the emergence of preferred antenatal centre describes the features of the game-playing space where the participants took separate pregnancy care related positions and where their PAC emerged. The antenatal centre can be explained by Bourdieu (1990) concept of competition between individuals (players) in a field where the players have common interest (to protect and have a healthy child), employ separate strategies in order to win. Generally, the pregnant women during the interview were torn between biomedical and non-biomedical models of antenatal care in their demonstrations of antenatal preferences which helped to explore the 'grey areas' in antenatal care contexts in Nigeria. The narratives of the participants showed they navigated two models of pregnancy care namely: informal (faith and tradition-based), and formal (hospital-based) care. While the participants in this study demonstrated awareness of the risks and safety measures peculiar with non-biomedical models of care, most of the pregnant women prioritise personal values, beliefs, and attention in justifying their antenatal centre preference. This section will discuss the analysis of how the pregnant women reached the decision about their preferred antenatal centre in the light of their awareness of risks and safety, personal beliefs and values, and familiarity with antenatal centre and preparedness for uncertainty.

4.2.1.1 Individual awareness of risks and safety

There were only two instances where two of the pregnant women gave accounts of how they arrived at their antenatal preferences on the basis of their awareness of cephalopelvic disproportion, a condition where the baby has trouble getting through the birth canal because of the baby's position, size of the head or the shape of the mother's pelvis. Another was on the basis of blood protein condition known as rhesus incompatibility where a woman who is rhesus negative becomes pregnant with a baby with rhesus positive blood.

"Like me personally I'm O negative, so there is one important injection I take immediately after delivery, they call it RhoGAM, it's an anti-D injection, it's very important to me, so I can't go anywhere else" (Roseline, Setting A, 39 years old).

"I know myself because normally I'm going through CS (caesarean section), because the 3 children that I have, I have them though CS, so this one now, I know its CS, I'm also prepared for it" (Mary, Setting A, 29 years old).

While the formal antenatal centre (FAC) participants demonstrated the awareness of possible emergency interventions and acted towards prevention, the informal centres in their responses recognised it but rather used sentimental defence to belittle skilled interventions of

formal centres in order to exercise agency for their preference. By this, most of the informal centre participants expressed awareness of possible emergencies yet chose spiritual interventions over medical interventions. This was expressed in Eniola's narration saying:

"Hmm...the thing about it is that my husband chose overcomers (a hospital) because he thinks in case I need doctor's attention, or the mission house midwife is not around. But you know the mission house midwife's skills are different from that of doctor's, the mission house midwife does hers in the spiritual way, though she might not have instruments, but she has the most powerful instrument which is God" (Eniola (Mrs) Setting B, 29 years old).

Evidence from the pregnant women's discussion demonstrated that while some participants ignored skilled medical interventions, others did not agree with alternate interventions but biomedical. The formal centre participants in their responses believed the need to consider their safety in choosing where to receive antenatal care and deliver their baby. For example, Roseline, a 39-year-old who has had two previous caesarean deliveries, was advised by "some people" to consider informal centre for delivery, however, she demonstrated understanding of safety process to express her preference for formal over informal care saying:

"Some people will say because I give birth through CS, I should go to those traditional midwives, they will give me drugs to slim the baby so that the baby can come out easily without CS but me I no dey (don't) listen" (Roseline, Setting A, 39 years old).

In this regard, Bourdieu's concept of field is undisputedly 'a social arena within which struggles, and manoeuvres take place over specific resources or stakes and access to them' (Jenkins, 1992 :52) . Similar to Roseline's position mentioned above was Funke's experience, pregnant with her third child who described how from her previous delivery experience took a stance in agreement with her husband to engage formal care in the present pregnancy in pursuit of safety. She narrated:

(Short silence) ..." hmm.. what happened was that when I gave birth to the 2nd child I started bleeding on the day of delivery...it was God that helped me sha (anyways). So, when I got pregnant this time, my husband said I'm not going to the mission house again, that I must come to where he is working, that was why I came here to register in hospital" (Funke, Setting A, 30 years old).

Also was Mary who considered it risky to move between centres in her decision for preferred antenatal centre. She said:

"No! no! It's here that they know everything about me, I registered when my pregnancy was early, so if I go to another place.... it will be an emergency there and many things will be different there,it will not be like this place I started antenatal already, I can't go anywhere else, it's a risk, it's a risky to the baby and also my life because those people (care givers) that I'm going to meet there.... they don't know my condition, and they will not know what to do, ...many people who go that way, they normally lose their life or their baby, its risky, I can't go to another place" (Mary, Setting A, 29 years old).

4.2.1.2 Personal values and beliefs- the women's different value for spiritual and biomedical care

The pregnant women took different approaches to pregnancy care and delivery based on their personal values and beliefs. Some of the participants expressed interest in cultural practices which they believed facilitated vaginal delivery through repositioning and resizing of the growing fetus to make them *deliver by themselves*. In their opinion, *these things* have been for many years. This was expressed in Oriyomi's interest for tradition-based care as opposed to Roseline's above, saying:

"Ehn....(smiles)...you know these things were here since inception, when they ask us to do scan, some, they say the baby is in sitting position, some, they say the baby has not descended, so, they give us herbal concoction, some, it may be liquid concoction, when we drink it, the baby will turn, some, the baby maybe big, when they give concoction, the baby becomes small, so that we can deliver by ourself, there won't be need for CS, its being from the beginning, and what has been, when they ask us to use it, we don't have a choice" (Oriyomi, Setting C, 30 years old).

However, what stood out in Oriyomi's narration was the claim that women who exercised preference for informal care *don't have a choice*, but they are situated with agreed traditions which in her opinion was based only on traditional beliefs. This belief according to Bourdieu (1977) explains the dynamic nature of field where negotiations between contestants are not strictly rational, rather, positioning in the field is based on judgement of the 'possible, impossible, and probable' (Bourdieu, 1977 :78).

Collyer et al. (2015) explains the field operates as a site of struggle between various actors involved in it. This was evident when some of the pregnant women expressed their challenge of making antenatal preference decisions amidst different and popular models of care in the face of obstetric conditions that they were aware of as mentioned earlier. They claimed it was often difficult and unnecessary to convince other people about their personal interest. For example, according to Anita, a health professional whose stance was a formal antenatal care said the way she handled advice that was contrary to her interest was to say *thank you* while she maintained her stance of antenatal care approach, she said:

"People have told me... that in that place.. you know that particular place.... they are very good, no matter how big your baby is, you will still have your baby virginally, even if it is 4.5kg, you will not even have a tear or they won't get to give you an episiotomy or all sorts, and then I will be like ok, that's good, but it won't influence my own decision, I will just be like oh! thank you so much and.." (Anita, Setting A, 30 years old)

The majority of the pregnant women discussed how they made the decision to express their preference based on personal interests and beliefs about certain model of pregnancy care. The generally believed reason for the participants' antenatal preference from the accounts of most of the pregnant women in this study was, according to an informal centre participant, Miss Eniola – *"It's not that people have not been delivering somewhere else, but it is about where one's mind chooses"*. Miss Eniola's account was typical of most of faith and tradition-based (informal) centre participants that took part in the interview. They claimed their PAC was something they made up their mind about based on personal beliefs in spiritual and traditional methods as opposed to biomedical methods. Miss Eniola spoke about how she had seen women travel in from other parts of the country to deliver in a faith-based centre. Eniola believed there was something special that drew women from far and near to the faith-based centre which appeared as an unexplainable reason. She said:

"I chose here because it came from my mind, some women, they bring them from Lagos, some even come from Abeokuta because they have decided to give birth here" (Miss Eniola, Setting B, 20 years old).

Another participant who demonstrated interest in non-biomedical care also expressed the opinion that traditional birth is something *that is good*. She narrated how traditional methods that *many people do not believe in* had been used in difficult birth situations. She said:

"Ehn....what I think is that, here, you know sometimes, they say traditional things, in which I believe works better, many people don't believe in it but it's something that is good, because I have seen a person in labour here that they saw how the situation was and gave her a traditional stuff and God did it, it came easily" (Ibukun, Setting C, 34 years old).

Personal beliefs appeared as a very strong influence on the emergence of choice of antenatal centre. Taiwo, an informal centre participant who seemed to be aware of possible emergencies claimed to have *heard* of emergency situations yet chose spiritual belief over the possibility of emergency, she said:

"By God's grace, with prayer God will do this.... though we have heard of erm.... stories that...some after two or after three (children), the person had to go for CS or operation and all sorts, but mine, by God's grace, it will be easy" (Taiwo, Setting C, 39 years old).

A formal centre participant, pregnant with her third child described her initial position against biomedical approach to express belief for spiritually inclined care saying:

"They always do operation for them, that was what happened, so I preferred going to the mission house, you know they will sing, dance pray to God and all that... so I had my belief, 100% belief in delivering my baby in the mission house" (Funke, Setting A, 30 years old).

While formal centre participants' value was placed on professional interventions provided to pregnant women by the care givers, the knowledge of pregnancy care, for example, in emergency or in abnormal foetal presentation were differently described and constructed by pregnant women in other centres.

“Ha...the reasons are numerous, very numerous, and why it is so is because ...you see this mummy, if someone is in labour and it seems difficult ...as in, since I have known her to take deliveries, I have not heard that it went wrong, even if it seems to be going wrong, ah ..eh..(smiles) ..we will pray and the person will deliver” (Eniola (Miss) Setting B, 20 years old)

Some of the formal centre participants also expressed interest in spiritual attention through their personal spiritual exercise saying:

“What I will not joke it is prayer.... you can't take that away...you know some people spend a lot of time in hospital when they are pregnant, its only God that can give good health in pregnancy and make everything they (healthcare professionals) give us in hospital go well with us” (Moji, Setting A, 32 years old).

Most of the pregnant women's account revealed in their responses that formal antenatal centres were less spiritually engaging or inclined compared to the informal centres. The women found the infusion of spirituality to be more important than biomedical interventions provided in formal centres. This could be due to the recognition of different pregnancy routine practices that operate in pluralistic maternity health system where informal care is perceived as a place for natural and supernatural interventions, whereas formal care is perceived as a place of interventions for emergencies and complications (Peprah et al., 2018, Izugbara and Wekesah, 2018, Choguya, 2014). These value-dependent positions of the participants revealed the knowledge of the different models of practice in formal and informal centres, with opposing value for quality or what quality care meant to individual persons. Some of the pregnant women discussed their different values and positions about the centres thus:

“Normally, it's not about where a woman registers.... it has nothing to do with safe delivery, that place is centre, here is about prayer and my prayer is to not be a victim of the deviland one's faith can heal completely, if you believe in your heart that God will do it, he will” (Adetutu, Setting B, 20 years old).

“...it is faith because it is God that helps the doctor, they also say they only try, it's God, so many times, doctors try and yet....and the mission house midwife will call on God and she succeeds” (Eniola (Mrs) Setting B, 29 years old).

4.2.1.3 Familiarity with antenatal centre and preparedness for uncertainty

The construction of preparedness and familiarity with an antenatal centre from the accounts of the pregnant women, both in formal and informal centres further suggested personal beliefs

and interest in the antenatal preferences of the pregnant women. The pregnant women who discussed familiarity with an antenatal centre discussed two ways in which it was important in their antenatal decision: Firstly, some attributed familiarity with a centre to the assurance and trust they have in their care givers, especially the formal centre care givers. They expressed the desire for a reliable, tested, and trusted place for their antenatal care and childbirth which implies an embodied practice of a certain model of care. An example of this was the narrative of a formal centre participant:

“I make sure I see my doctor whenever I have complaints, it’s straight to the hospital, I don’t use medicine on my own or go to one kind of, you know all this herbal home, I don’t just take anything, I make sure I see my doctor for everything” (Omowunmi, Setting A, 29 years old)

Secondly, some of the participants also attributed the freedom to engage familiar cultural practices and religious beliefs, a form of pregnancy care practice that they have known and believed to have worked for pregnant women before them. For example, one of the informal centre participants who said she preferred to engage spiritual practices narrated her experience of care givers in her PAC identifying with spiritual belief:

“It depends on where we prefer as an individual, you know when you believe that your prayer is being answered in a particular place and the ‘midwife’ knows what she is doing, God will work through the midwife...and that is it!” (Iyabo, Setting B, 34 years old)

The above quote also reflects some of the struggles that the pregnant women possibly go through in the emergence of their PAC when they consider the success of the pregnancy outcome. All these prompted their preferences for antenatal centres that they were familiar with, either based on trust and assurance in their care provider or a place to exercise spiritual or traditional practices.

Nonetheless, it should be noted that one of the formal centre participants narrated that in some cases, if a pregnant woman is not registered in certain centre and reports on emergency, she might be delayed because the antenatal centre does not have their health record. This practical circumstance might make pregnant women keep to antenatal centres that they are familiar with. According to Irene who registered in two antenatal centres due to pressure from her parents, she said this about informal centres:

“You know that one is a maternity home, she doesn’t even have nurses, she does her things herself, so, in case of anything, I need to prepare myself” (Irene, Setting A, 28 years old).

4.2.2 Objective and subjective influences of antenatal centre preferences

In the previous subtheme, I analysed the struggles and positions of pregnant women that distinguished the antenatal space of action and the participants' preferences from formal and informal models of care. These struggles and positions manifested through individual awareness of risks and safety, personal values and beliefs, and familiarity with the antenatal centres to reveal the different ways that the pregnant women reached their decision on PAC.

This section will present the analysis of the second subtheme objective and subjective influences of antenatal centre preferences, under the theme making antenatal centre preference. This subtheme captures the structural and agentic influences in the antenatal care systems which informed the pregnant women's actions towards their PAC, pregnancy routines and RVP. This section also discusses the forces that informed the pregnant women's decision-making in regard to their PAC and general pregnancy care. The pregnant women's account of subjective and objective influences provided supporting evidence to the notion of the level of autonomy of women in making reproductive health decisions in the healthcare space (Osamor and Grady, 2016). These accounts of influence on PAC were viewed from the experiences and perceptions of pregnant women on different models of antenatal centre. The pregnant women recounted their past experiences of antenatal centres and their perception of the attitude of care givers in discussing the impact of the antenatal system in their PAC.

The experience of the influence of different encounters in making pregnancy-related care decisions within the antenatal care settings was discussed by both formal and informal antenatal participants. The informal centre participants generally discussed the issues of delays, cost of care, attitude of care givers, while both formal and informal centre participants discussed access and past unpleasant experiences. The discussions of the pregnant women in this section revealed that the PAC of the pregnant women did not emerge solely from personal decisions or judgement, but they were shaped by both internal and external forces. This further reveals the pregnant women's reasons for preference of certain antenatal centres over another.

4.2.2.1 Delays in formal centres

An informal participant reflected on her experience of delay in her last visit to a formal care centre in comparison with the prompt attention she received in an informal care centre where she was interviewed. Ayomipo narrated how her past experience of negative reception and delay in a formal care centre shaped her present decision of using an informal centre where she reported having received prompt attention saying:

“Maybe because of my last experience in the hospital, I was delayed, unlike when I got here, the midwife attended to me promptly, she sat with me the way you are now, chatted with me, asked why I didn’t register on time, she asked maybe it’s because of the pregnancy (fell pregnant) I left ilishan to ikenne, I smiled and said no, that my husband was living in Ikenne before I got pregnant, and the stress was too much moving between the two towns.. so, she said OK” (Ayomipo, Setting B, 26 years old).

4.2.2.2 “it depends on one’s strength” - Cost of care

Responses from the participants revealed cost of care was the most commonly cited reason why pregnant chose certain centre over the other. This made some antenatal centres, particularly, formal antenatal centres unpopular among pregnant women with lower income backgrounds and considered a privilege for some formal centre participants. According to Funke whose husband is on the staff list of the institution that manages the formal centre where she was interviewed, she said:

“I delivered our 1st child and 2nd child in mission house, but my husband is working here now, that was why I came here to register in hospital... (smiles) because they help him to pay” (Funke, Setting A, 30 years old).

The informal centre participants reported the cost of care was the reason that formal centres seemed not to be as popular among the majority of pregnant women. Iyabo, one of the informal centre participants said- *“There isn’t any centre that I don’t prefer; it depends on one’s strength”*. She further explained strength as:

“Strength as in money, money is the main thing, and when one is convinced. God is working through the people there, and apart from such centre, if it’s in the hospital, one must be capable to pay hospital and other bills after delivery” (Iyabo, Setting B, 34 years old)

Another informal centre participant said how cost of care made her engage with the formal centre at first but due to the cost of surgical care, she had to engage with informal care in the subsequent pregnancies. She said d:

“The first pregnancy was CS, we didn’t have enough money, but we tried, but the second one, we used this place” (tradition-based centre) (Oriyomi Setting C, 30 years old).

Cost of care seemed to be a strong determinant of antenatal preference and registration/booking according to the pregnant women. Iyabo and Bose’s responses demonstrated how registration solely depended on cost among most of the pregnant women.

“This thing that we are talking about is money.... (smiles)...when there is money...everything is money, if there is money, I will register” (Bose, Setting B, 37 years old).

“... because I know when the day of delivery comes, my husband may not be available to even cater for the bills, so I will use a place I can afford to pay for their service” (Iyabo, Setting B, 34 years old)

The participants' responses demonstrated that the pregnant women's PAC was influenced by varying and strong dispositions. While the disposition of some of the informal centre participants showed their desire for skilled pregnancy care, they were limited by the cost of care, and other participants were prevented from aspiring for skilled care based on their acceptance of what is affordable and available. According to Bourdieu and Wacquant (1992), habitus can influence a person's access to the 'right' types of capital, that is, the forms of capital (economic, cultural, social, and symbolic) that people struggle to accrue to their own benefit and others (cultural) which may limit their success. This was further evidenced in the participants discussion about how the cost of care made certain models of pregnancy care centres acceptable among certain groups of women. Ibukun said:

“What I think is that, here, the care they give here, in my own opinion, is more ok than the hospital because they do so many things for us here like the traditional ways, people told me about this place that it is ok, and when I got here, I see truly God is working through them, God is doing wonders” (Ibukun, Setting C, 34 years old).

“When I came to her, she told me the baby had not descended, she asked me to bring some money but I didn't have enough money, ... so, I called my mum, and my mum's husband does alternate medicine, so, I went to him, he gave me herbal concoction, and I came back here and explained to her what he did, she tested me and said it has descended and that is it” (Oriyomi, Setting C, 30 years old).

4.2.2.3 Attitude of care givers

Another common view discussed by most of the informal centre participants was how their care givers related with them to gain their trust and respect through their attitude towards them.

“Ha!... it's because I like this place, and I like the way mummy (faith-based care giver) talks to us, and she encourages us, do this, do that, she is not temperamental” (Adenike, Setting B, 23 years old).

“They (faith-based care giver) joke with us, and we also relate with them, they won't insult us saying eh! you at 15, you are pregnant, at 16, you have a baby (Ayomipo, Setting B, 26 years old).

The informal centre participants recounted the influence of their care givers, especially in comparison with formal centre care givers. They reported instances of negligence and disrespect where the formal centre care givers ignored them during labour which made them feel offended and disrespected. Although, the informal centre participants highlighted their displeasure towards this kind of attitude, they appeared to be familiar with such treatment and

referred to it as the basis for which most women engage informal care. Ishola et al. (2017) documented that the incidence of disrespectful and abusive behaviour in different forms towards pregnant women during childbirth has become frequent in the Nigeria health system and it affects the utilisation of skilled maternity care. Hence, the informal centre participants expressed the opinion that skilled care givers should treat pregnant women better than they currently do. Deborah, an informal centre participant expressed this opinion saying:

“You see the government hospital.... some of the nurses there behave like, no...they have never put to bed before, as in, no baby has passed through their vagina before.. especially when they see a woman in labour...instead of attending to that person, they feel the labour is not established and this is wrong...the elderly people say it’s a delicate time.... the time of labour is delicate...and a really serious time.....unlike here.... you know...the woman here knows her job...so, it’s different” (Deborah, Setting B, 33 years old)

However, contrary to informal centre participants’ opinion of formal centres, some pregnant women in formal centres expressed positive experience with their care givers. Arike, a formal centre participant expressed how her care giver paid attention to her complaints and request saying:

“I like the fact that you can always walk up to them, talk to them, and get things done, for instance when I finished from the doctor just now, I went to report to the matron that ...erm.. because she gave me a syringe that I can be using to pull my nipple out...so, she gave it to me some time ago and I went to explain to her that the nipples are getting broader, so, she gave me another syringe to use, so, I like the fact that I can communicate my fears and concerns to them and then, they offer solutions” (Arike, Setting A, 28 years old).

The accounts of the participants, both in formal and informal antenatal centres suggested that the pregnant women recognised the attitude of their care givers towards them. For example, the women appreciate that their care givers are attentive to their needs and that they respect them during pregnancy and childbirth, especially as such attitude determines their return and influence their antenatal preference in subsequent pregnancies. When the pregnant women are not treated with kindness or when they get feedback from other people who have not been treated well, they often do not like to choose or return to such antenatal centres in subsequent pregnancies.

“My brother’s wife delivered here, I was there, and she was treated well and that is why I decided that when the time comes, I will also deliver here” (Opeyemi, Setting B, 19 years old)

“You won’t get that (personal attention), especially when you feel somehow and go to complain, they will say you complain too much, even when you are trying to talk and explain, they will say maybe because you are educated, ... that if you have that kind of knowledge, you may as well study this, you may study that, that’s why I said no, I will come here” (Taiwo Setting C, 39 years old).

“...like the day I told you I was bleeding.... I was taken there (government owned formal health centre) ...I saw with my two eyes the people that delivered me of my baby...they didn't even take me in at all...they just said we should go to Babcock” (a teaching hospital and formal centre) (Deborah, Setting B, 33 years old).

4.2.2.4 Access to centres

The pregnant women also discussed how important access is in determining their choice of antenatal centre said how they made their antenatal centre decisions to reveal the importance of access to antenatal centres. This informed the reasons most participants registered their pregnancy in more than one antenatal centre. In the responses of some of the participants, they reported:

“It depends on the one closer to me, and I'm here, I will come here, and if I'm still here and they insist that I come to Ikenne, they will come and carry me” (Irene, Setting A, 28 years old)

“I desire either ways because the reason I say that is, I know ...because pregnancy sometimes, it's either 2 weeks late or 2 weeks early, so, and it could be afternoon, midnight or early morning, anytime, so, from our house to this place, is something near, it's not far, and if its midnight that I fall in labour, to bring me here won't be difficult, but if it's from Ilishan, from here to Ilishan, and security men are on the road at night, so they might delay and delay is dangerous, so, where they are arguing and talking, God forbid, nobody wishes that, anything can happen, I prefer the two places anyways” (Adesewa, Setting B, 26 years old)

“Because we live here now, I told you right from time that we live here now, so, because of that, I can't go up and down because the hospital is in Iperu, but when I am ill, my husband prefers I go to that place” (Ibukun, Setting C, 34 years old)

4.2.2.5 Past unpleasant experiences

Contrary to opinions above, some of the pregnant women identified informal centres as the possible cause of a negative pregnancy experience especially with bad obstetric or pregnancy outcomes. Some participants discussed that negative experiences in informal centres were used as an example and basis for subsequent antenatal decisions. For example, according to Funke:

“But the 2nd baby was the one that scared my husband, I was bleeding so much and this time my husband said I must register here (hospital)” (Funke, Setting A, 30 years old).

4.2.2.6 Stability of staff

Other participants identified that they lose confidence in the level of skilled workers' professionalism when they have to meet new staff each time they went to the hospital-based centres. This could be due to a shortage of registered and skilled staff and the incorporation

of trained health workers into primary health care centres. Deborah spoke about her doubts and fears when she meets different kinds of people in uniform in the clinic comparing it to a one-person traditional centre, she said:

“Hmm...not that I wanted a particular person (staff)..you know ..like this place, they are based on one person carrying out test on us, but at the other place...there are different persons, and I see it, our experiences differ, they can address someone as a nurse....and the person is not....nobody knows it all....do you understand...and its only God that can approve of what we do.. that’s the way I see it” (Deborah Setting B, 33 years old).

4.2.3 Negotiating antenatal preferences - personal circumstances and interest

In the previous section, I presented the analysis of the subtheme of structural and agentic influences that shaped the PAC of the pregnant women. The subtheme discussed the forces that influence the decision-making process in regard to their PAC and general pregnancy care. The experience of the influences of the women’s PAC was discussed by both formal and informal centre participants. The discussion of the pregnant women in this section revealed the influence of delays in antenatal centres, cost of care, attitude of care givers to further demonstrate the pregnant women’s preference of certain antenatal centres over another.

In this section, which is the last subtheme under the theme making antenatal centre preference, I will discuss a few circumstances that modified the struggles of antenatal centre decision-making process discussed above. During the interviews, the pregnant women expressed these modifications as interests that were peculiar and important to note while their PAC emerged, which seemed like their personal circumstances and interest. *“He chose here because this is where he works” (Arike Setting A, 28 years old).* A broad description of personal interest and circumstance that would be used for this analysis is Grenfell (2010) who summarised how actors embody interest in the field environments.

“Individuals have interest which is defined by their circumstances, and which allows them to act in a particular way within the context in which they find themselves in order to define and improve their position” (Grenfell, 2010 :154)

This according to Grenfell (2010) was pointed out in Bourdieu’s work that social practice is never determined according to specific rules, rather, there are constant negotiations according to personal circumstances. For the pregnant women and according to their stories, there were circumstances they negotiated which controlled, perhaps, shaped their PAC to advance to the pregnancy routines that they engaged in. Some of the negotiations are discussed as follows.

4.2.3.1 Intrafamilial bargaining

“hmm... when she (participant’s mum) knew that I had taken in (pregnant)...so she...you know... when the first one happened, she was already saying that I’m not going to Babcock this period, that I will have to register elsewhere, whether I like it or not, I said ok, fine no problem, I will, which I have done too, there was a time she said I should stop going to that Babcock, you people’s Babcock, I should go somewhere else, I said ok no wahala (problem), I go there too, so I have two places I registered, here and the other place, but she prefers me going to the other one” (Irene, Setting A, 28 years old).

Irene is a 28-year-old health professional, newly married who worked in same healthcare setting (hospital-based care) where she was interviewed. She had a stillbirth in her first pregnancy in marriage which got many people to question what must have gone wrong. As a professional, it was unexpected of either herself or the healthcare team to have mismanaged the situation, and so, in her opinion, the cause of stillbirth was a *spiritual attack*. The experience opened her to advice from many people in the pregnancy with which she was interviewed. She said her mother in particular recommended her to an informal model of care. Following this conflicting advice against her professional knowledge, she was initially nonchalant towards her mother’s recommendation. *“Each time she will ask me, have you gone, when are you going, she pretends not to remember I registered here again”*. However, after much pressure, she considered her mother’s advice and registered in both formal and informal antenatal centres. She recounts the experience that inspired her to play by these rules saying.

“I do not know what led to the stillbirth because during the period of pregnancy I was always coming for my routine antenatal clinics, I made sure I took all my routine drugs, all the necessary investigations were carried out, nothing, no ..nothing was detected that could have been the cause of the stillbirth but you know... because we fight against flesh and blood, principalities in high places, ... I can’t say that this is actually what caused it, everything was done perfectly, not until that day, I came for my last check up, and ..it was detected that the baby was not, the heart rate was not there, I was asked to go for scan, the scan confirmed it and that was all, to the glory of God, I was induced and I delivered the still baby myself, I thank God for that...the Yorubas do say that it’s only the water inside the calabash that poured away but the calabash is still there” (Irene, Setting A, 28 years old).

While Irene’s PAC could be seen as a decision that emerged from a place of ‘professional doubt’, a situation in which she questioned her own expertise, it also seems to reflect the context of making health decisions out of respect for older women and indicates the confrontation between rules of the game and the taken-for-granted generally in maternity care. Irene’s story provides an indication of being between two antenatal fields, what seemed like bargaining between family and personal interest to arrive at a borderline of antenatal decision.

4.2.3.2 “it’s a matter of cash” - Household wealth

As earlier discussed, many of the pregnant women agreed one of the factors of deciding where to register pregnancy for antenatal care is the consideration the cost of care. This section further discusses how the cost of care may impact on the general household. An example is lyabo’s story. lyabo is a 34-year-old mother of three, pregnant with her fourth child. She has had used both formal and informal centres in her experience of childbearing, however, the medical condition (sickle cell disease) of one her children and the cost of sustaining the family made her rethink her choice of antenatal centre. She said:

“I told him that I prefer Rufina, the hospital in Iperu where my 2nd child receives care because he is SS, but we don’t have enough money for that, because even transport to the hospital sometimes is not easy, since I got pregnant, he hasn’t even given me just ₦2, 000 to register this pregnancy, he doesn’t even talk about me attending clinic or not, his attention is on our son, so I told him about CAC mission house and he agreed. Moreso, it was even here I gave birth to our 3rd child” (Iyabo, Setting B, 34 years old).

lyabo’s response seemed to show pregnancy care as being in a space of negotiation with the family’s reality. For lyabo, it was a case of priority of spending. When she was asked which antenatal centre she sincerely preferred, she said:

“I prefer any, it’s a matter of cash”.

Her response demonstrated the dilemma of choosing between the pregnancy care and her son’s medical care.

4.2.3.3 Aligning with safety needs

While the concern for some pregnant women was about competing expenses within the household, for Arike, it was about aligning with her husband’s desire of meeting her safety needs. She made her antenatal care preference in agreement with her husband stating:

“Uhm...I didn’t choose here (smiles)...my husband chose here ..(smiles)... he chose here because this is where he works so he knows that there are capable hands here and their service is good” (Arike Setting A, 28 years old).

In her response, capability of the health team was important to her when she said, *“there are capable hands here and their service is good”*. However, she described how she would have considered other options if she was not satisfied. *“If I had noticed anything otherwise, I would have told him and probably would have changed hospital”*. Her possible change of hospital if unsatisfied point to the negotiations between interest and field as earlier mentioned by Grenfell (2010). The women’s responses in this section show how antenatal preferences emerged not only by the logic and rules in a contested field such as making antenatal centre decision, but rather, the women’s personal circumstances shaped their preferences. Negotiations around

intra-household relationships, financial situations and the sense of safety moderated the pregnant women's preferences in the antenatal field.

4.3 Summary of first findings chapter

In this chapter, I have presented the analysis of the first major findings of this study which is titled; making antenatal centre preferences using Bourdieu (1990) practice theory. I explored the struggles of pregnant women in making decisions within their different dispositions and capacities for where to register their pregnancy to engage routine vaccination. I investigated the structural and agentic influences of these decisions and how the pregnant women negotiated their preferences through different concerns and interests.

The next chapter will present the second major theme of the study – relational and value alignment to show how pregnant women were influenced by their care providers, their social background, and other significant relationships in regard to their PAC to engage routine vaccination.

CHAPTER FIVE

RELATIONAL AND VALUE ALIGNMENT

5.1 Introduction

In this chapter, I will analyse and present the second major theme of this study which I have named, relational and value alignment to answer the research question on how relationships influence the pregnant women's choice of antenatal care including vaccination with TTCV. This section describes the pregnant women's accounts of the influence of their relations and interactions with their families and care providers and how these informed their PAC and the ways that they engage routine vaccination. Most of the pregnant women perceive their experiences of vaccination with TTCV as an alignment with what they value most during pregnancy and the relationships that influence these values. I will explore the influence of older women, particularly of mothers and mothers-in-law, care givers and significant others on the emergence of PAC of the pregnant women. Finally, I will present the sense the pregnant women made of the relationship influences that they experienced. I have grouped the pregnant women's relational influences into relationship within and outside of the antenatal centres to show the relation of power in women's preferences for where they engage routine vaccination.

5.2 Relationship within antenatal centres informing routine vaccination practice

The majority of the pregnant women revealed their experience of their care givers as unengaging while perceived support and imitative influence of mothers and mothers-in-law seemed to be the strongest relationship influence on the pregnant women's PAC where they engage vaccination. The presentation of the participants' relational accounts is based on the influence of one relationship over another as discussed by the participants. The majority of the pregnant women expressed their preferences for their mothers and mothers-in-law' advice compared to their care givers' during the interviews, while some, though mostly formal centre participants indicated their preference for their care givers' advice over their mothers' and mothers-in-law's. In general, however, most of the participants' actions indicated their preference for their mothers and mothers-in-law before their care givers, which possibly contributed to their engaging with vaccination in the ways that they do. Some of the reasons for their preferred advice source will be presented in detail as discussed by the pregnant women.

The subthemes that will be explored in this section from the pregnant women's accounts are a) Influence of care givers b) Influence of mothers and mothers-in-law c) Influence of significant others and d) making sense of the relationships.

5.2.1 Influence of care givers on the routine vaccination practice of pregnant women

The subtheme 'influence of care givers on the routine vaccination practice of pregnant women' describes the pregnant women's accounts of the kind of relationship they have with their care givers, and the effects of this relationship on their preferences regarding antenatal centres to engage routine vaccination. The narratives from the pregnant women showed that their care givers had strong influence on them, and they discussed how this relationship was based on their personal expectations of care services and the influence of the different models of antenatal care. Most of the pregnant women interviewed seemed to perceive the relationship with their care givers to be dependent on their expectations of service provided in the antenatal centres including vaccination, and which they found unengaging.

The pregnant women-care giver relationship discussed was related to the pregnant women's perceptions of antenatal care and they identified the influence of traditional or biomedical models of antenatal care on their PAC. The participants' accounts further demonstrated the reasons most pregnant women, particularly, informal centre participants, showed preference for a certain centre over another. I will present according to the participants' narratives the common issues discussed in relation to care giver influence under the following: a) being valued and 'listened to' b) care giver-pregnant women relational disconnect and c) perceived relational impact.

5.2.1.1 Being valued and 'listened to'

This describes the study participants' experience of compassion and mutual respect between them and their care givers. The pregnant women described this as the determinant of a meaningful relationship and antenatal centre preference that depicts "accumulation of exchanges, obligations and shared identities" (Bourdieu, 1993:143) with which the women gain mutual connection strong enough for ease of relating with their caregivers. However, the pregnant women, commonly the IAC participants in their narratives emphasised the issue of listening with care and compassion as important factors that informed their perception of unengaging relationship which contributed to the decision about their PAC and vaccination experiences. These specific qualities identified by the pregnant women served to connect and create safe and happy environment and also the yardsticks for engaging with antenatal routines within the pregnant women's network. Most of the informal centre participants narrated informal centre care givers listened to their needs more than formal centre care

givers. The essentials of keeping a valued relationship as narrated by the participants are caregivers' listening skills and valuing the relevance of their complaints and feelings.

“The most important to me about what I have said is that she (tradition birth attendant) listens, this part (touching a part of the body), something like this, she listens, when she says her own opinion, she gives listening ears to us. That’s why I have made up my mind, every time I want to have a baby, God will help me, I need somebody that will have my time” (Taiwo, Setting C, 39 years old)

This revealed according to the pregnant women the value of effective communication and the lasting impression it creates. Their narration also revealed the possibility of ‘relational apathy’ between the pregnant women and FAC care givers where the pregnant women seemed to be distant and unsatisfied.

5.2.1.2 Care giver – pregnant women relational apathy

Care giver-pregnant women relational apathy refers to the kind of relationship discussed by the participants that existed between them and their care givers wherein the pregnant women felt rarely involved in the care givers’ decisions regarding their health. The narratives from the pregnant women suggested a disconnect regarding the care they received that they attributed as the major reason why care givers did not seem to meet the pregnant women’s needs. Person-centred care expectation was identified as a major cause of the care giver-pregnant women relational apathy. The different forms of apathy according to the participants can be explained in three forms.

5.2.1.2.1 Person-centred forms of apathy

Firstly, the pregnant women identified care givers, particularly in formal centres were inattentive to them as they concentrated on getting their jobs done, hence, they were not user/pregnant women-centred in their care approach. While describing their relationship with care givers, the majority of the informal centre participants expressed that some care givers concentrated only on getting their jobs over and done with, that they paid little or no attention to what and how the pregnant woman felt about the care or advice that they offered to them which includes vaccination. This was commonly stated among the IAC participants, possibly as the reason for their choice of informal care. The account from Deborah, in an informal centre expressed this from her experience of a formal centre saying:

“.....they will not ask you.... nothing! they just do their job and tell you to go...that’s why I came back here.. at least with God, I will get personal care, and everything will be ok” (Deborah, Setting B, 33 years old).

Mary, a formal centre participant narrated her experience of caesarean delivery to support Deborah's point of care giver not seeking their opinion or giving them a chance to participate in their own care decision, she said:

"Even me I believe that I can give birth by myself, but what some doctors do, no that I blame them, it is about what they know, they want to save life, when they operate once, they will not even give you trial, you understand? and whether they want to give you trial, they will be worried, so that nothing will happen, maybe you labour like one hour, or less, they will say, o ya (c'mon!) lets rush her to theatre, so that's it. Since they operated me once, all my children are through CS, the 3rd one, they did not even want me to say anything, it wasn't even up to 9 months, they said its ok, is due to deliver, they operated me,.. left to me, I was sure I could give birth by myself after that first one" (Mary, Setting A, 29 years old).

Secondly, the care givers were not emotionally or relationally involved with the pregnant women even while they seemed to be trying to do their job. The IAC participants identified that some care givers (referring to formal centres) were concentrated on offering professional care service but paid no attention to their emotional needs or concerns. They expressed how they needed the care giver's attention, particularly, some form of spiritual identification with them, and that the failure of the care givers to give such attention to them during clinic appointments could be responsible for them seeking other options of care where such needs are met. This was supported by Ayomipo's comparison account:

"..you will also know how the baby is doing, like when the woman checked me this morning, she said to me jokingly how my baby is moving about, she joked with me and also prayed, unlike the other place (formal centre), after the usual praying and singing, they will just test us, give us medication and we go home" (Ayomipo, Setting B, 26 years old).

The third form of person-centred apathy according to the participants' narratives was that the care givers lacked either the knowledge of, or the adequate and right information to communicate and engage them in the details of the service provided to them. They attributed the care giver's inability to provide them with necessary detailed information to the care giver's lack of information about certain conditions and practices. Ibukun and Josephine respectively told of their caesarean section and fibroid experiences which made them move between hospitals, their stories revealed:

"...they told me to push, I realised it wasn't forthcoming, then they said let's go for CS, funny enough, I didn't know what CS was, if they had told me it's operation, fine!, I would know ok, but they just said CS. They also said I was too pale for CS, but I didn't know what they were talking about, I thought it was an injection, but thank God, another midwife came in, that's why they gave me a cut instead, I had a big tear, it was terrible, I screamed, I can't forget that day, that's why I said no, I'm not going there (smiles) (Ibukun, Setting C, 34 years old).

“So, this fibroid degeneration came, I was in great pain, it was as if I wanted to give birth at that moment, so there is this other place I registered because the federal hospital was on strike then, I was rushed to another hospital, the doctor that saw me was like the fibroid is not allowing the baby to move freely that’s why I’m having the pains and all that, meanwhile the other doctor had told me that the fibroid is just on its own, that there is enough space for my baby to grow to full term. So, he wrote out some drugs that my husband had to buy, but then to be sure, we called my sister-in-law who is a nurse, and we realised the drugs are not safe for the unborn child. I told my husband, let them discharge me, let’s go, let’s keep praying together, that God will help the pain to cease, you know... they asked us to sign, we signed, we didn’t buy any of those drugs, we left the hospital, we went home. And God did it, the pain ceased with time, it stopped along the way, I think it was in my 2nd trimester, towards the end of my 2nd trimester, the pain stopped. And being a first-time mum and all that...so, you just see me looking somehow pale and all that, not so healthy because I was avoiding things in order to see that the fibroid will not keep growing...and then I wasn’t sure, I was feeding on unripe plantain, fruits sometimes.... you know stuffs like that...after that experience, I told myself ...no more! I think I know those I would listen to and get advice from them, so it’s not all medical personnel per se that is also safe to take advice from and please that spirit of discernment should assist one to actually know which advice is ok to be taken, and which one is not ok to be taken...so I just thank God I scaled through it ... I didn’t lose my baby, he’s growing, he’s strong, he’s healthy” (Josephine, Setting A, 37 years old).

5.2.1.3 Perceived relational impact

In the previous section, I presented the pregnant women’s discussion about their relationship with their care givers, the forms of relational apathy between the pregnant women and their care givers and the effect of these on their antenatal centre choices and routines. I explored the disconnect between care giver and the pregnant women through effective communication needs. I identified the relational apathy that exist between the pregnant women and their care givers led to what appeared as unengaging relation.

This section on perceived relational impact is the last aspect of care giver-pregnant women relationship, which describes the perceptions of the pregnant women about how interaction with their care givers influenced them, and the specific forms of impact they experienced regarding their PAC to engage routine vaccination. Although, some aspects of the impact were discussed earlier, however, this section will present the perceived relational impact in detail as narrated by the pregnant women.

5.2.1.3.1 Transfer of authority

Many of the informal centre participants described how their confidence in the perceived ‘professional’ *experience* of the care givers instilled an automatic statutory transfer of authority of care. This form of response was common with informal centre participants which seemed

to come from a place of trust in the care giver which possibly blinds the pregnant women from the subtle control their care giver has over them. Taiwo's account revealed this:

"I don't think twice... because It's ok, God has been helping the woman, God helps her, and at least the experience is also there, that's what I see, she has the experience, when she says something, that's why I do it (including vaccination)" (Taiwo, Setting C, 39 years old)

The pregnant women's relation with their care givers could be attributed to the level of autonomy of women in regard to reproductive health decisions in the healthcare space (Osamor and Grady, 2016). For example, a pregnant woman in a formal centre recounted the experience of "subjecting" themselves to their care giver and the belief in care giver's judgement. The pregnant women's discussion demonstrated some level of transfer of autonomy and trust in the *care they give to them* and the belief that *everything they are doing is for their good*.

"For us to have left our house and say let me go and be doing this, as in.... attending antenatal care, I've already subjected myself to them to be taken care of (smiles) so, I believe whatever they say it's good for me, I shouldn't be... I shouldn't go against it because I came to them because I know I need their care, so whatever care they are giving to me, I believe I should just appreciate it and I believe everything they are doing is all for my good and for the good of my baby that is coming" (Moji, Setting A, 32 years old).

5.2.1.3.2 Irreconcilable interests

While the pregnant women discussed the relational disconnect between them and their care givers, the majority of the pregnant women identified that interests in different models of the antenatal care were responsible for the ways the care givers related with them. According to the participants, understanding the expectations that were important to them made the relationship with informal centre care givers smoother than with the other centres. The model of practice in most antenatal centres seemed to be spiritually inclined more than biomedical, and they were valued differently according to the pregnant women. An example of the model of practice in formal and informal antenatal centres was discussed by Seun as follows:

"Hmm...you know this place is a church, centre is hospital, I have never attended clinic there before, I just go there for vaccination and they talk to us about personal hygiene, food with the children, but here is church, they give us prayer water, we bring the water and they bless it" (Seun, Setting B, 22 years old).

In the discussions above, the pregnant women identified how their care giver had gained their trust and confidence through perceived knowledge and expertise which appeared to be their reason for not "*thinking twice*" or probing/asking questions. The pregnant women's discussion

revealed to be barriered by assumed responsibility that resulted in an unengaging relation between them. This kind of care giver-pregnant women relationship demonstrated an unengaging decision about pregnancy care where the pregnant women appeared to be complicit in putting forward distant and vague justification for their antenatal choices. This was demonstrated in Ibukun's account:

"I just think its ok, because mama is nice to us that's why I came here, since she pays attention to us and the care is good, I can't say much about it" (Ibukun, Setting C, 34 years old)

In this analysis, the key impacts of care giver-pregnant women relationship discussed by the pregnant women were transfer of authority and irreconcilable interests. While the pregnant women identified some of impact of the relationships that they shared with their care givers to be to their advantage, others seemed to be relational consequences. However, the major reason identified as the undertone for the relational transactions between the women and their care giver was hugely towards a successful pregnancy outcome.

5.3 Relationship outside antenatal centres informing the routine vaccination practice of pregnant women- the strong relationship with mothers and mothers-in-law.

In the first subtheme – 'influence of care givers on the routine vaccination practice of pregnant women'– I analysed the relationship between pregnant women and their care givers which formed the basis of their RVP and which they found to be unengaging. I presented how the participants; particularly IAC participants described the experiences of their relationship to be disconnected from their personal needs while most participants from both formal and informal centres felt barriered and unengaged by not being 'listened to' and valued in their complaints leading to a distant and relational apathy.

The subtheme 'relationship outside antenatal centres informing the routine vaccination practice of pregnant women- the strong relationship with mothers and mothers-in-law' details the relationship the pregnant women identified had the strongest influence on their preferred antenatal centres to engage routine vaccination. This section describes the pregnant women's interaction with older women in their families and families that they are married into or pregnant and how they were influenced by them. The majority of the participants identified mother figures, particularly, mothers and mothers-in-law who have had experience of pregnancy and childbirth were the people that they identified with the most and imitated in carrying out pregnancy care, including their RVP. Mothers and mothers-in-law appeared to be stronger

influence than care givers on pregnant women in informal antenatal centres, while among the pregnant women in formal antenatal centre, mother and mother-in-law influence seemed to be based on their level of engagement with formal care rather than informal model of pregnancy care.

The narratives of the formal centre participants revealed that pregnant women who demonstrated interest in engaging pregnancy-related practices that aligned with the biomedical practice of formal centres seemed to be least influenced by their mothers and mothers-in-law. In contrast, where biomedical practice was not in the interest and in alignment with the pregnancy-related practices of the pregnant women, mothers and mothers-in-law had the greatest influence on their pregnancy routines. The majority of the pregnant women acknowledged in their narratives that their mothers and mothers-in-law influenced them in the decisions they made as they often seek their approval especially on issues relating to pregnancy care and routines. Their accounts revealed the reasons why they seek mothers and mothers-in-law's approval and the forms of influence it had on them.

5.3.1 Reasons for seeking mother and mother-in-law's approval

The majority of the participants highlighted the reasons why they seek their mothers and mothers-in-law's approval for pregnancy care and the routines which they follow including vaccination. Some of the reasons mentioned by the pregnant women were that they "*gave birth*" to them, they were "*more experienced*" than them, their mothers, and mothers-in-law "*won't hurt*" them, and that their advice and recommendations have evidence to show for it because they "*have children too*". The pregnant women added that their mothers and mothers-in-law were "*concerned*" about them and were the "*closest to them*" which made the pregnant women *trust them* and felt they could follow their advice because they have had similar experiences.

5.3.1.1 "Gave birth to me"

Most of the pregnant women believed that their mother birthing them is a first-hand conviction of how to conduct pregnancy care and routines than the care givers 'advice and recommendations. According to Ayomipo, an informal centre participant, pregnant women would seek their mothers' advice because they *gave birth* to them, and as such more *experienced* in the *journey* of pregnancy care and childbearing. She narrated:

"Because I know my mum gave birth to me, and she is experienced more than I am, for me, I just started this journey, if she tells me not to do something, I will listen, I won't" (Ayomipo, Setting B, 20 years old).

5.3.1.2 “Have the experience of how”

The pregnant women further described why they seek their mother and mother-in-law's approval to conduct pregnancy care in the ways that they did. The reason was that they didn't have the experience at a time on what to do or not, especially on things they eat and drink. Deborah, another informal centre participant narrated how they followed dos and don'ts to *guide* them saying:

“You know...our mothers say don't drink cold water, ha...what I think of all the things they say is that....as no one is able to see it (she meant the growing baby), they are just trying to guide against some things that we don't know...if it's something visible that we can see... like how the baby is doing...then we can.. but you know” (Deborah, Setting B, 33 years old).

“Hmm.... I did, not that I didn't...you know...erm...I didn't know how to go about anything then...so, they are the ones to guide...you know, our mothers have the experience of how” (Deborah, Setting B, 33 years old)

5.3.1.3 “They won't hurt”

The informal centre participants identified that their mothers *won't hurt* them because they *brought them up* as evidence to show and they follow their advice because it is what their mothers *did too*, and they believed worked for them. This was evident in the narratives of Adetutu and Oriyomi:

“The reason I do it is because they won't hurt me, they brought me up, so, they are doing what they did when they were pregnant with me too, they want us to do for our baby what they did too” (Adetutu, Setting B, 20 years old)

“My husband will say somebody that has grown-up children...that they did it for their children, he believes nothing will happen” (Oriyomi, Setting C, 30 years old).

5.3.1.4 Show “concern”

The pregnant women also described certain qualities in their mothers as the reason they seek and have confidence in their advice. The women narrated their family members, particularly their mother showed *concerns* through *praying, fasting, and phone calls*. According to Irene, a formal centre participant and a health professional who had experienced still birth in her first pregnancy and registered at both formal or informal centre expressed *all hands are on deck* on her present pregnancy and her family member would *call* to advice on, *don't do this, don't do that*.

“Well, they feel concerned, especially my mum particular and my mother in-law even my siblings too because the 1st one was not easy, it wasn't good at all, so and erm...being, that 1st one should have being the 1st grandchild for both families ..but that was it, and everybody is... you know anxious and waiting for this one, all hands are on deck, praying, fasting, calling, I hope you are fine, don't do this don't do that...you know, they are all concerned” (Irene, Setting A, 28 years old).

5.3.1.5 “Closest” persons

Some of the pregnant women claimed their mothers were the closest to them and as such they gained their mother’s *approval* for the things they do including their pregnancy routines. Ayomipo, an informal centre pregnant woman said:

“I tell my mum everything because I think my mum is like the closest to me, for example, I tell her everything that happens because this is her church too, and she gives her approval for me to go ahead.... So, when I decide on something, I tell my mum and if my mum says it’s not good, I stop” (Ayomipo, Setting B, 26 years old)

“My mum even came here this morning reminding me that I have not been to the centre, I told her I will be going soon..... (smiles) because my house is not far from my mum’s place” (Ayomipo, Setting B, 26 years old).

5.3.2 Forms of influence on pregnant women’s routine vaccination practice

The pregnant women not only gave the reasons they seek their mothers and mothers-in-law’s advice and approval with regard to their pregnancy care and routines including vaccination., but their narratives also identified the different ways in which they informed their RVP. The forms of influence mothers and mothers-in-law had on the pregnant women are discussed as follows.

5.3.2.1 Overwhelming cultural influence - “oka” (sunken fontanelle) kills children”

The pregnant women talked mostly about how their mothers and mothers-in-law *make a list* to them of what to and not to do, referring to those actions as *tradition* that they *warn* them about, for example, the kinds of food to or not to eat and other warnings. Some of the warnings as cited by the women appeared to be overwhelming to them, according to Seun, an informal centre participant, she said:

“You know, tradition, that’s what they say that plantain is not good for pregnant women, and because I live with my mother-in-law, if she sees it with me, she will tell me not to eat it that it causes oka (sunken fontanelle), and because I have a sister-in-law who is also pregnant, they warn us not to eat such thing, that oka kills children, and they also told us cold water is not good for pregnant women, it makes the baby convulse” (Seun, Setting B, 22 years old).

Warnings closely connected to food that they were not supposed to eat was the season of the year not to eat fruits. Adenike, another informal centre participant revealed she followed the advice even when she did not understand the concept behind it, possibly just trying to ensure nothing goes wrong by not following the advice.

“Not to eat.... they tell us not to drink soft drinks...and anything sweet.. they said we shouldn’t eat anything bad like fruits that has not experienced rainfall.....that it affects

the baby.... I don't know how it does...they just said it's not good" (Adenike, Setting B, 25 years old).

Adetutu further expressed how pregnant women endure the urge for the kinds of food they like to eat but because they have been advised not to do so, they try to avoid them.

"My mother in-law does not support that I take garri (food made from cassava), even when I feel like it, she will say no, she also does not support that I drink tea (hot chocolate) so that the baby won't be too big and that may affect me ...but normal food like vegetable, beans, its ok" (Adetutu, Setting B, 32 years old)

5.3.2.2 Surprises

The pregnant women also discussed the ways in which their mothers and mothers-in-law's advice on what not to eat or do "surprise" them. The surprise the women experience from the lists of don'ts and dos from their mothers could reflect their feeling of inexperience about pregnancy care and routines. In response to the unexpected lists, the pregnant women revealed they did not have an excuse not to follow their advice when Tutu said *what can we do?*

"You know our mothers, when they make a list of what not to eat, we the children are always surprised and for me, I don't know what they mean by all of it, ..(smiles)...but what can we do?" (Tutu, Setting B, 32 years old).

5.3.2.3 Fear of the unknown - 'it is for our own good'.

The fear of unknown was another form of influence that the pregnant women discussed made them follow their mother and mother-in-law's advice. The pregnant women expressed concern over the possibility of negative outcome from not following their mother's advice which is the reason in their opinion they would do everything they are asked to do. This was narrated by Oriyomi and Adesewa:

'When they tell us not to walk in the sun, it's for our own good, because it's in that afternoon that the strange spirits come out , and such a thing can affect a child such that when some people give birth and the child turns out bad, the time they told them not to walk about was when they did, and they did not use anything'(O.R.I, Setting C, 30 years old).

"Erm ...because I know that no one knows it all in this life, we learn every day, because if they tell me not to do this and I do it, and something happens, so, that's why there is nothing they tell me not to do that I will do" (Adesewa, Setting B, 26 years old).

5.3.2.4 Fear of consequences

In addition to fear of the unknown discussed above, another impact is the fear of consequences and blame aversion from other routines, particularly cultural routines carried out in informal centres. Oriyomi, an informal centre participant expressed that *if* they didn't take 'agbo' (liquid herbal decoction) and 'aseje' (herbal concoction) that the traditionalists in

tradition-based antenatal centre gave to pregnant women, they could have themselves to blame for it. She narrated:

“Ha....the reason why I believe is that if we don't eat those things, when we eventually want to deliver the baby, some of these things cause problems, that will warrant CS and stuff, when labour prolongs, it may end up being CS, some even lose the baby, so, I believe in those things, when they ask us to do something and we do it on time, and the time to deliver comes, it will help us, and we help ourselves too” (Oriyomi, Setting C, 30 years old)

“I eat ‘aseje’ (herbal concoction), I drink ‘agbo’ (liquid herbal decoction), I use tablets, everything.... there is nothing they give me that I don't use...(smiles).... I use everything” (Oriyomi, Setting C, 30 years old)

The accounts of pregnant women who identified with cultural advice regarding pregnancy revealed how and why they made their decisions so. Some of the reasons they gave for following their mothers and mothers-in-law advice were – ease of the pregnancy process, blame aversion, and peace of mind. Seun, an informal centre participant expressed that pregnant women who do not follow advice are “reminded of the advice they didn't comply with” as “the consequence” of their failed action.

“If it's something that has to do with my pregnancy, I won't do it, you know sometimes, a pregnant woman may feel like eating a particular food, like the things we are told not to eat, some pregnant women eat it, they do otherwise and after delivery, they are reminded of the advice they didn't comply with, like the cold water now, when you carry a baby and she convulses, they say it's the consequence of what the woman did in pregnancy” (Seun, Setting B, 22 years old)

Some of the pregnant women described how they kept to their mothers 'advice only because they were advised to do so, suggesting that they followed recommendations not because they were convinced about it, but they did so because they were committed to trust the relationship and prevent being blamed in unforeseen consequences.

‘Ha...normal, I don't believe in it but I don't have a choice, since there were before me, they are doing to me what they met here as well, I won't say because I now go to church and reject what they tell me to do, it will be like an insult, it will be like saying don't they believe in God too?’(Deborah, Setting B, 33 years old)

5.4 Relationship with significant others informing routine vaccination practice

The pregnant women also discussed other significant relationships that they felt had influence on their pregnancy care and routines including RVP. These relationships were with family members like their sisters, friends and acquaintances, and other pregnant women in antenatal

centres and in their community. The participants discussed the specific ways that each of these set of people influenced particularly their antenatal choices and RVP.

5.4.1 Influence of sibling relationship

The pregnant women mentioned their relationship with closest female family members such as their sister, the sort of advice they received from them regarding antenatal centres and how they respond to the advice. For example, Mary, a formal centre participant narrated how her sister advised her on traditional practice to avoid surgical delivery and how she took to a different position. Mary said:

“Yes, one of my sisters told me about how I’m going through CS and she told me to take some herbal medicine, that she will take me there so that I will not go through CS again, but when I met my doctor, he said I should not stretch myself because it’s not possible for a person that already has operation 3 times to go through labour, so, I already avoid that one, I’m not doing that and I’m ready for the CS” (Mary, Setting A, 29 years old).

For other pregnant women, more than yielding or not to advice is the assurance to seek care in certain centre where their sibling worked. This could be associated with the possibility of receiving better quality of care in care centres where family members or familiar persons work, particularly formal centres where the participants have narrated to have experienced negative attitude of care givers. Oluwaseun reveals this saying:

“... the reason I gave birth at the health centre is because my sister used to work there but now she has been transferred to another centre, I changed to this place, I have given them 1st and 2nd baby” (Oluwaseun, Setting B, 34 years old)

This was further evident in Aishat’ perception of the centre where she was interviewed saying:

“it’s ok in my view, because the person that attended to me on the day I registered is like a family member to my husband and they attended to us well” (Aishat, Setting B, 19 years old)

5.4.2 Friends and acquaintances

Some of the participants identified the influence of people they are friends and familiar with on their choices regarding antenatal centres for routines and delivery. Oriyomi, an informal centre participant expressed that it was in a conversation with other women that she got recommendation about the traditional centre where she was interviewed, she said:

“It was somebody who told us about this place, that they are good, that they use traditional methods, that if it is in the wrong position, it will turn, we registered, that was why we registered here, and when the time to deliver came, I realised it was the same as we were told, no issues, (smiles).... I just know I delivered” (Oriyomi, Setting C, 30 years old).

Contrary to Oriyomi following advice from other familiar people, Kehinde, like Mary above, a formal centre participant refused to yield to her friend's advice on alternate care. This revealed most formal centre participants seemed to be less influenced by recommendations and advice outside of biomedical practice. She said:

"My friends give me advice to go to town (informal centres in the community) to go and register because Babcock is expensive, that when the time of delivery comes.... there will be no need for operation (smiles).... I say ok.. but for me.. nobody should give me wrong advice o, I don't want" (Kehinde, Setting A, 33 years old).

5.4.3 Influence of other pregnant women

Most of the pregnant women identified the influence of other pregnant women in antenatal centres and in their community on their antenatal centre choices. Mrs Alani, a faith-based centre participant expressed that, as pregnant women, they relate with other women in their community to *ask where* they seek antenatal care and delivery, and they got feedback that suit their spiritual expectations which made the faith-based centre *popular* amongst them. Bose, another faith-based participant discussed testimonies of other women as the reason for their antenatal choice.

"it's just that this place is popular, because if you ask majority, when people put to bed and you ask where, they will say CAC oke anu, CAC ayenkojalo (faith-based centre), if God is not doing great signs and wonders, people will not be coming here, although God is everywhere but it is an individual choice to go anywhere they want to go" (Mrs Alani, Setting B, 27 years old).

"People have testified how God works through them here and answers prayers, I desire that he answers my prayers too, that's why I chose here" (Bose, Setting B, 33 years old).

5.5 Making sense of the relationship informing the routine vaccination practice of pregnant women

In the previous subtheme, from the narratives of the pregnant women, I analysed the strong influence of relationship with mothers and mothers-in-law on pregnant women. I also explored and presented the influence of pregnant women's relationship with significant others such as their sister, friends and acquaintances, and other pregnant women which inform their routine vaccination practices. The relationship of the pregnant women with other pregnant women, particularly in regard to RVP will be presented in the next findings chapter.

This section describes how the pregnant women made sense of the relationships that they experienced which informed the ways that they engage with routine vaccination. It describes according to the pregnant women how they made sense of their relationship with their care

givers, mothers, mothers-in-law, and significant others in the community where they lived. The major features of this are: interrelated influence of the intention of the care givers as well as the mothers' and mothers-in-law', compromising care giver influence, conceding care givers 'advice, and maintaining marital and social status in relation to their preferences and care routine decisions during pregnancy.

5.5.1 Shared or common goal

An observation that was made by the participants that was generally evident in most of the interviews was that the majority of the pregnant women appeared to agree that the intentions of recommendations of care givers and the advice, instructions, and support of their mothers and mothers-in-law were both in the interest of the possibility of a positive pregnancy outcome. While making their decision about antenatal centre to engage pregnancy routines including RVP, the majority of the participants expressed that most of the time, the intention of advice and instructions from their mothers and mothers-in-law were same as with recommendations from their care givers. Oriyomi and Adenike's accounts revealed this saying:

"The clinic that I attend is important, my mum that gave birth to me is important...everything is...there is none that is not important to me" (Oriyomi, Setting C, 30 years old)

"It's because of delivery day, that's the reason, so that it will be smooth, and whatever its handed over to God is done" (Adenike, Setting B, 25 years old)

5.5.2 Sentimental preference

The majority of the pregnant women discussed the awareness of their individual responsibility to make the decision about their antenatal centre and pregnancy care regardless of the influence of their relationships. Some of the participants described how formal care is not *different* from informal form of care especially with their care givers' disconnect and lack of person-centeredness. The pregnant women's discussion about making antenatal centre decision was often associated with some forms of sentiments as observed in the accounts of some of the pregnant women saying:

"Everybody knows that ...anywhere they go, even if they go to traditionalist and obey whatever they are told, they will see the result" (Adenike, Setting B, 25 years old)

"There is nothing different, if we go to hospital, they will test us and give us injection, when we come to our clinic here also, they test us, check our eyes, and explain to us what we need" (Seun, Setting B, 22 years old)

5.5.3 Value for relationship

Some of the pregnant women clearly expressed the reasons for responding to certain advice and source of pregnancy routine-related information over another. These reasons demonstrate the value for supportive and marital relationship over biomedical recommendations from the care givers according to the pregnant women's narratives.

"Because my husband is Christian, and I can't be disobedient, and since I know his religion and I feel comfortable with it, that's why I'm here...and because my sister-in-law, we are here together, we came for confinement together, she is a native of this town and she knows this church very well, that's why my mother-in-law said we should come for confinement here" (Aishat, Setting B, 19 years old).

"I won't say that I am married to my husband, I am married to my mother-in-law as well, if my mother in law asks me to do something that my husband is not supporting, I will plead with my husband and let him know that I can't turn down his mum's request and if he agrees, I will do it, so, that's what I do" (Adetutu, Setting B, 20 years old).

5.6 Summary of findings

In summary, I have presented the second major theme of this study where I explored and presented the influences within and outside antenatal centres which informed the pregnant women's choice of antenatal care including vaccination with TTCV. These include the influence of caregivers and older women, particularly of mothers and mothers-in-law, and significant others to distinguish the relationship valued most by the pregnant women. I identified relational apathy between care givers and the pregnant with generally perceived distant and unengaging relationship, and a lack of person-centeredness in formal antenatal centres resulting in a disconnection between the pregnant women and their care givers and the reason they prefer informal care. I presented the reasons the pregnant women obliged advice from older women over their care givers. I found out that most of the pregnant women imitated and heeded to suggestions and advice of older and other women because of their lack of confidence of conducting pregnancy routines, including the ways that they engage with TTCV. Also, I discovered that mothers and mothers-in-law had the strongest influence on majority of the pregnant women.

The next chapter will present the last major theme of the study – 'playing by the rules' in preferred antenatal centres to show what pregnant women understand of routine vaccination during pregnancy.

CHAPTER SIX

‘PLAYING BY THE RULES’ IN PREFERRED ANTENATAL CENTRES

“The good player, who is so to speak the game incarnate, does at every moment what the game requires” (Bourdieu, 1990 :63)

6.1 Introduction

In this chapter, I will analyse and present the third major theme in this study which I have titled ‘Playing by the rules’ in preferred antenatal centres to answer the last research question on what pregnant women understand of routine vaccination during pregnancy. Here, I will explore the influence of vaccination information on the pregnant women’s vaccination experiences, present their understanding of tetanus disease and further explore the influence of other pregnant women who vaccinate, on the pregnant women’s RVP. Finally, I will discuss the reasons identified by the pregnant women for the inconsistent use of vaccine.

In the findings so far, the accounts of the majority of the participants suggested a stronger attention to their mothers and mothers-in-law’s advice which informed a disconnect between the pregnant women and their care givers’ recommendation of vaccines to them. In addition, the findings from the data showed that the pregnant women’s experiences of vaccination were shaped much more strongly by the model of care in their preferred antenatal centre (PAC) rather than individual decision to use vaccine.

The findings in this chapter showed that the accounts of the pregnant women suggested that their main concern was not about the detail information of vaccination but the likelihood of having a successful pregnancy outcome if vaccinated. Most of the participants seemed to have a poor knowledge of the benefits and risks of tetanus vaccine in pregnancy and thought it was only used for treatment of wound injuries and a mere medical routine during pregnancy.

The pregnant women perceived routine vaccination as a regular routine of pregnancy, and the normalisation of vaccination as a pregnancy routine seemed to be the commonly discussed information that the pregnant women hold regarding vaccination. The informal centre participants’ discussions suggested that the reason why majority of the pregnant women used vaccines with little or no information about it was because other pregnant women were using it. This gave them an assurance for a healthy baby and that routine vaccination was a popularly accepted and normal practice in antenatal centres. Hence, the pregnant women did not see the need for detailed information regarding vaccination.

The subthemes that in this section are the ways that the pregnant women played by the rules in their preferred antenatal centres based on a) vaccination information; b) other pregnant women's influence; and c) the suggested reasons for the inconsistent use of TTCV.

6.2 Vaccination information required to engage pregnant women

This subtheme - vaccination information required to engage pregnant women - focuses on the information required and held by the pregnant women to engage in routine tetanus vaccination during pregnancy and the information required and held by them to proceed to complete recommended doses after delivery. The pregnant women expressed their awareness of routine vaccination as a routine or standard of practice during pregnancy, which they also called 'TT'. The participants' discussion about tetanus vaccination information will be presented as: a) sources of information; b) illusion of normality; and c) the practice of vaccination to completion.

6.2.1 Sources of information

The sources of information refer to where, when and from whom the pregnant women got their information on routine vaccination. The discussions of the participants appeared to focus on two major sources of vaccination information. The first source that was identified was through organised gatherings of pregnant women while the second was through unorganised sources. The majority of the participants generally referred to their information about routine vaccination as 'TT' (Tetanus Toxoid), although not all participants knew the full meaning of the acronym. The reference to 'TT' appeared to be common among all participants while at other times, they referred to vaccination as '*the injection*' and '*immunisation*'. Routine vaccination is recommended a part of pregnancy routine for all pregnant women to protect neonates and child-bearing age women with five doses of tetanus toxoid vaccine against tetanus infection starting with at least two doses during pregnancy and the remaining three after delivery (WHO, 2018, Awosan and Hassan, 2018). The information about vaccination including the number of recommended doses were first received in organised gatherings such as in antenatal centres according to the pregnant women. Antenatal gatherings were the places from which most of the participants identified had first received vaccination information as a pregnancy care standard or routine recommended to them by their care givers. According to Seun, Amarachi, and Opeyemi:

"I first heard it here (at the faith-based centre)because.... I came to church, it's in the church here that I heard vaccine for pregnant women, they told us five, that I will have two in pregnancy, and the remaining three maybe after delivery" (Seun, Setting B, 22 years old).

“The first day I registered here for antenatal, that’s when I heard about it” (Amarachi, Setting A, 30 years old).

“It was when I came to register that they told me I will have to take the injection” (Opeyemi, Setting B, 19 years old).

The second source of vaccination information identified by the pregnant women during the interviews included information about routine vaccination that they received from people outside of organised gatherings, usually, from mother, mother-in-law, aunt etc.

In Nigeria, routine vaccination against tetanus infection was included a part of pregnancy routine for all pregnant women since the late 1990s after the World Health Organisation launched an initiative towards a global Maternal and Neonatal Tetanus Elimination (MNTE). Although, the initiative was initially targeted at eliminating neonatal tetanus when it was launched in 1989, the WHO relaunched it ten years after to include mothers because tetanus also affects mothers (Nasir Yusuf, 2021, Awosan and Hassan, 2018, WHO, 2018). However, the pregnant women who use routine vaccination during antenatal care often perceive one or two doses to be enough to protect the growing fetus, hence, the high level of non-protective immunity reported among women after childbirth (Awosan and Hassan, 2018, Orimadegun et al., 2017).

Most of the participants identified that the care givers, regardless of the centre, provided them with information about tetanus vaccination as though it was most important for the growing fetus and not the pregnant women. According to the pregnant women, the care givers encouraged them to vaccinate with more emphasis on protecting the growing fetus from possible infections after they are born. This was demonstrated in Temitope’s account saying:

“They said one must use take the vaccine, and if not, it may affect the baby, and they said we will take it monthly, I had it the first time I went, then the second month after, they said the remaining will be after delivery but if I don’t complete it, I will start all over for next pregnancy” (Temitope, Setting B, 21 years old)

The care giver’s advice seemed to be in favour of the growing fetus which seemed to resonate with the goal of the ‘game’ the pregnant women were playing. This suggested that both the vaccine recommenders and the pregnant women appeared to share a common goal that drove the vaccination information that was passed and practiced.

The majority of the pregnant women discussed the kind of vaccination information that they received by chance from their family members as young adults. Arike, a formal centre participant recounted her experience with her aunt as the source of her vaccination information at a time that she lived with her saying:

“The first time I heard about it was inI think 2016..yes...I was in Osogbo, my aunt that I was living with was pregnant, she was taking the injection, she told me to come along and start. I asked her why I should take the injection, ... because nothing was wrong with me...she said it didn't matter, that it's for every young woman. ... and because I was going to get married soon and all... that I could start, ...I said no, I am not going to take it that time. So, I asked my husband who was my fiancé at a time, who is also in medical line, he also encouraged that I should but because I was not ready, I decided that.... when it's time to start, I will start...so when I got pregnant, I knew it was time for me to start taking it” (Arike Setting A, 28 years old).

The account told above by Arike happened about four years prior the interview, when she was neither married nor pregnant. She further recounted an experience she witnessed of her mother when she was much younger, explaining she didn't know about tetanus vaccine, Arike said:

“Hmm...I don't know ...but before then I knew that when they say somebody is taking tetanus, maybe it's to prevent erm...needles or...stuff that has to do with rust or something, I remember one time my mum had an injury with nail, they said she should go and take tetanus or something like that...I sha know it has to do with injury” (Arike Setting A, 28 years old).

Among the informal centre participants, injuries were also identified as the time they first heard about tetanus vaccination, Tutu said it was part of the treatment that she received for an injury:

“When I was young and had an accident, it was the 1st thing my mum insisted they give me for treatment so that it doesn't get worse” (Tutu, Setting B, 32 years old)

While discussing the kind of information they had as young adults about tetanus vaccine, Ibukun added:

“The injection, I remember when I had injury, there was a time I had a wound on my leg, my mum took me to the centre, they gave me tetanus injection at the centre” (Ibukun, Setting C, 34 years old).

From the interviews conducted with the pregnant women, the majority of them did not mention their family, that is, their mother and aunt as the source of vaccine information per se, but rather referred to them in their experiences of injuries, suggesting the kind of information they had about tetanus vaccine. The narratives from most of the pregnant women demonstrated that they assumed tetanus vaccination was recommended for open wound treatment, and they did not understand its correlation with pregnancy. This was demonstrated in Deborah's response when she was asked about tetanus vaccine, she said:

“Not that I have never heard of it...I was not sure it's for pregnant women... I felt it's for wound, I just know that when a person has injury, and the wound is infected by tetanus, that it won't heal., so they give it, but for pregnancy, I don't know” (Deborah, Setting B, 33 years old)

Josephine, a formal centre participant narrated what she made of vaccination information that she received from an unidentified source in this way:

"I'm not a medical professional but I know from what they sayit is to prevent some kind of infections and all that... because normally when a child or an adult has a cut or nail wound, they will be given TT, to avoid any.... any...not shock, erm, seizure that might be associated with it" (Josephine, Setting A, 37 years old).

Most of the pregnant women spoke about how their care givers who recommend vaccines to them advised and encouraged them on routine vaccination. They noted that their recommendation was for them not to expose the growing fetus to infection and not to be infected with *all sorts of infections* when the child is born -*"They told us its necessary for us to take because its prevents infection, so, we take it to prevent all sorts of infection"* (Oluwaseun, Setting B, 34 years old). This warning contrasted with treatment of injuries that the women had known of tetanus vaccination. This further suggested the contrasting perception of risk of tetanus infection in the vaccination information that the pregnant women received from their vaccine recommenders.

Another informal centre participant told how their vaccine recommender encouraged them not expose the child to infections and the contrasting orientation and misconception that routine vaccination prevents *polio* and *malaria* infections. Bolanle and Adesewa said:

"They just said its good and that it prevents the baby from all sorts of infection, so the baby doesn't have polio" (Bolanle, Setting B, 33 years old)

"You mean the TT? erm. they didn't tell me anything, but I think it's for malaria something,... its good for me and the baby inside of me" (Adesewa, Setting B, 26 years old).

Most of the participants' accounts revealed different circumstances and opposing reasons for tetanus use during pregnancy.

"Tetanus vaccine.....I didn't know it's for pregnant women...I thought it's for wound (Deborah, Setting B, 33 years old).

"No, the one I experience is for my daughter, when I brought her for immunisation" (Funke, Setting A, 30 years old)

Although Funke admitted arriving late for antenatal appointments could be the reason she had not heard – *"although I use to come late o, I won't lie"*

The pregnant women seemed to misconceive and highlight routine vaccination during pregnancy to prevent the risk of *all sorts of infections* in the vaccination information they received from their vaccine recommenders while the prior vaccination information they had was for *treatment* in the events of injuries. This therefore points towards a 'skewed risk

perception' that pregnant women have of tetanus infection, particularly from the vaccination information they received from their vaccine recommenders. Skewed risk perception in this sense refers to an inaccurate or misleading perception of tetanus diseases with the use of tetanus vaccine whereby pregnant women perceived the preventive use of tetanus vaccine differently from its treatment use in the events of injuries.

One of the IAC participants expressed how what they knew about tetanus vaccination and treatment of injuries could possibly not be the likely experience of non-vaccination without an injury from the information that they received from their care giver. According to Ibukun, tetanus infection was most relatable to a *wound* when she said:

"Since I don't have a wound, I don't have a cut...God forbid it comes near my household, I only hear about it, they say whoever has a wound or something, tetanus can infect it and they should take injection, I pray it's not my portion" (Ibukun, Setting C, 34 years old).

The majority of the participants, from both the informal and formal centres discussed another source of information which was the antenatal health education that care givers provide during antenatal gatherings. Health education during antenatal is an important component of antenatal care aimed at promoting the health of pregnant women by providing information on diet, physical activities, personal hygiene, pregnancy-related danger signs, delivery preparation and complication readiness and awareness (Woldeyohannes, 2020, Ateeq and Rusaieess, 2015). However, in this study, the focus of the health education 'segment' as a routine of antenatal gatherings varied across the centres with attention on biomedical, traditional, or spiritual advice. The pregnant women expressed that the 'segment' provided them the information on what to do and not to do and how they conducted routine vaccinations. According to Temitope:

"They told us it's (vaccination) good for the body and if one does not take it, it may affect the baby, that's why I took it" (Temitope, Setting B, 21 years old).

Health education during antenatal gatherings seemed to have a very strong influence on the pregnant women as they frequently referred to it as a form of antenatal 'status quo' in which "resistance may be alienating and submission may be liberating" (Bourdieu, 1990 :155). This further revealed the influence of the pregnant women's vaccine recommenders/care givers on their routine vaccination practice when Tutu said:

"it's good for one's health because we won't be asked to take it if there is no purpose for it" (Tutu, Setting B, 32 years old).

However, what health education as a source of vaccination information seem to reveal is the variable quality and detail of information provided to the pregnant women.

6.2.2 Illusion of normality

The illusion of normality describes the accounts of the experiences of most of the pregnant women that suggested their perception of the information, particularly, from their vaccine recommenders regarding routine vaccination as '*normal*'. The illusion of normality of vaccination information describes the phenomenon whereby the pregnant women were enchanted and "taken in and by the game" (Bourdieu and Wacquant, 1992 p.116). Aside from the influencing sources of vaccination information, the narratives of the pregnant women included evidence of adherence to the information that the pregnant women received about routine vaccination. This appeared to be mainly on what the participants described as the expected *normal* for pregnant women on matters that related to pregnancy care. The accounts of the pregnant women suggest that they invested in and yielded to information from their vaccine recommenders on matters that related to the care of pregnancy. For example, according to Adejoke "*Ha... they told us because of the health of my baby.. so that the navel or so ...the umbilical cord to be ok.. ..not to bother me when the child finally comes*" (Adejoke, Setting B, 25 years old). The account from Mary also revealed that:

"I take vaccine, it's a normal thing for mothers, what I know from my own understanding is because of the baby, to be healthy and the mother, that's what I know about it, I no dey ask doctor say what is the meaning of this injection (I don't ask doctors details), I never ask but to my own understanding I know it's because of my pregnancy that I'm collecting the injection" (Mary, Setting A, 29 years old).

While there was an illusion of normality of the vaccination information relating to how vaccine recommenders passed information about routine vaccination to the pregnant women, most of the participants commented on the need to comply not out of choice but because they believed they would be doing wrong as mothers-to-be by not complying. Therefore, they accepted their responsibility as mothers-to-be. According to Eniola and Opeyemi:

"Since they told us that it is beneficial for us and our baby to use, that's why I took it because I can't see something beneficial to my baby and not use it" (Eniola (Miss), Setting B, 20 years old).

"If it does not have any benefit...they will not ask us to take it, that's why I believe in it that it will be of benefit for me and my baby" (Opeyemi, Setting B, 19 years old).

In relation to their illusion of normality about information on routine vaccination from their vaccine recommenders, the pregnant women discussed how they perceived their care givers/vaccine recommenders as experts in the field. Consequently, they willingly leave the decision on the use or not of vaccines to the recommenders to make on their behalf. This illusion of normality of information about routine vaccination could be argued to constrain

women's decision making on vaccination during pregnancy. This was shown in Mrs Balogun's response:

"When they say immunisation for pregnant women.... we just take it" (Mrs Balogun, Setting B, age unknown).

The accounts of the pregnant women revealed compliance with vaccination recommendations as long as the interest for doing so outweighs the idea of overlooking it (Bourdieu and Wacquant, 1992p.115). The symbolic reward of vaccine recommendations places the demand on pregnant women to manage their relationship with their care givers. Thus, passive vaccination action and compliance seemed to reflect the women's false practice for a successful pregnancy. Compliance thus appeared to serve as a form of false relation between the pregnant women and their care givers/vaccine recommenders. This normative recommendation showed further disengagement or disconnect of vaccine recommenders from the users/pregnant women which further informs a symbolic value of TTCV as an affirmation of 'standard' of practice that favours it.

6.2.3 The practice of vaccination to completion

The practice of vaccination to completion refers to the way routine vaccination is practiced by pregnant women and in antenatal centres during pregnancy up to completing the recommended doses within two years after delivery. Most of the pregnant women's recollection of their attempts to discuss routine vaccination further provided insight into the context of health education that the care givers/vaccine recommenders give to the pregnant women during antenatal gatherings. The accounts of the pregnant women showed that the information given to them about vaccination was their vaccine recommender's attempt to protect the growing fetus and not necessarily the pregnant women. As the recommendations seemed not to or rarely addressed completion but repeat announcements on routine vaccination during antenatal gatherings.

Following Anita's first delivery, she had made attempt to complete the recommended doses post-delivery, but *altered it at a point*, and so she had *to start again* in the present pregnancy. Anita claimed to have tried, especially as a healthcare professional herself, to complete the recommended doses but inevitably she could not, possibly due to reasons such as setting reminders (which will be discussed later). She knew that the antenatal centre would simply *start* with her *again* and repeat the regular recommendations. According to her:

"I have had erm.. actually, before this pregnancy, in the last pregnancy I tried completing the whole five doses, but I altered it at a point, but...I'm here now...so I

know in this pregnancy, I have to start again, so, I have had three” (Anita, Setting A, 30 years old).

Mary also said:

“Since it’s the normal way, that is why I did not need to ask, when we come, they tell us vaccine o, you will take vaccine” (Mary, Setting A, 29 years old)

Their experiences seemed to be the common practice in both formal and informal antenatal centres and for most pregnant women where reference to continued or completion of tetanus vaccination after delivery seemed to be unpopular. The pregnant women’s responses seemed to indicate that it was only during pregnancy that *the injection* was administered. Mary and Oriyomi expressed this:

“What I think about the injection is that it’s because I’m pregnant, and they want me and the baby to be healthy, that’s what I think, but after delivery, I no dey hear dem give person injection (I have not heard that they give injection after delivery) until now that we are discussing it” (Mary, Setting A, 29 years old)

“I only know that they say it’s good during pregnancy, that a pregnant woman must have it” (Oriyomi, Setting C, 30 years old).

Most of the pregnant women’s responses to routine vaccination demonstrated a struggle with completion and regular practice of repeat announcements in antenatal centres, which seemed to be the popular practice of tetanus vaccination for most of child-bearing age women in this study.

“In the previous pregnancy, they told me if I complete the five doses, I won’t have to take it in this one, but in my case, I didn’t complete it, so, I need to start afresh, start again as usual” (Ibukun Setting C, 34 years old).

“I have but the one I had.. you know it’s my first pregnancy, so, I have had only one, and I was told we will have 5, it’s not that I will have the whole 5 in pregnancy o, I will have 2, like I have had one now, maybe next month or next two months, I will have the 2nd one, and after delivery, they will tell me schedule for the remaining three” (Eniola (Miss), Setting B, 20 years old).

The analysis showed that the pregnant women engaged vaccination during pregnancy more than after delivery and according to the participants, it was the *usual* in the antenatal centres to announce routine vaccination with less emphasis on completion. This demonstrated a caretaker role-informed vaccination practice where the pregnant women vaccinated on behalf of the growing fetus more than for themselves.

6.3 Strong influence of other pregnant women on RVP

In the previous section, I explored and presented the subtheme – ‘vaccination information required to engage pregnant women’, where I analysed the pregnant women’s discussion about their sources of vaccination information, the illusion of normality of the information and the way vaccination information is practiced. I identified that the caretaker role-informed use of vaccine by pregnant women influenced their RVP.

Next, I will present the accounts of the pregnant women on the influence of other pregnant women as a major and strong influence on their RVP and finally discuss the common issues identified by the pregnant women in the use of vaccination during pregnancy.

This second subtheme on how other pregnant women influence vaccination shows how strongly other pregnant women and their attitude towards routine vaccination affects the pregnant women’s routine vaccination information and practices. The interviews with the pregnant women revealed that other pregnant women discussed the use vaccine with some of the participants and almost all the pregnant women identified other pregnant women’s actions as a major influence on their RVP. This influence could be summed up as engaging with TTCV because “*everyone else was doing it*”. The discussion on the influence of other pregnant women will be presented under the a) expected and accepted vaccination practice as discussed by the participants b) social acceptance of routines and c) overcoming conformity.

6.3.1 Expected and accepted practice - “*everyone else is doing it*”

This details the motivations discussed by the pregnant women that led them into doing what other pregnant women were doing in regard to their RVP. From the interviews conducted with the pregnant women, they identified their reasons for following other women’s actions in their RVP. Most of the participants identified that they were in similar ‘pregnant state’ with other pregnant women, which their vaccine recommenders were possibly not in. Hence, they seemed to find it easy to embrace and accept what “*everyone else is doing*”. According to Oriyomi:

“Why will I think twice? ...when other women are taking it ...(smiles)... everyone else is doing it, so, I have to do it” (Oriyomi, Setting C, 30 years old)

The pregnant women seemed to accept other women’s attitudes towards routine vaccination as a source of confidence in normalising routine vaccination, which satisfied their expected role as mothers to-be. The women narrated how they felt engaging in what other pregnant

women were doing. For instance, Adetutu described how she felt about routine vaccination when another pregnant woman in her neighbourhood told her about vaccination:

“I know vaccine is good, you know.... the pregnant woman that goes to centre in my compound (neighbourhood) told me to go to centre too for immunisation” (Adetutu, Setting B, 20 years old).

In their discussions, the participants also demonstrated an instinctive understanding of the social context of routine vaccination and their ‘feel for the game’. Iyabo illustrated this saying:

“If there is no need for it, we won’t be asked to use it, so, it has something it prevents that’s why we are asked to use it, and that’s why I use too, it’s normal. There are many diseases around these days, truly, unlike the days of our mothers, things are different from what it was, there are many diseases now, we shouldn’t put the innocent child into trouble due to our own ignorance, if we see that something is working, we should use it, except for deworming tablets they give in school that some kids react to, that’s the one I don’t allow my kids to take, aside that, they take all vaccines and I take too” (Iyabo, Setting B, 34 years old).

The pregnant women also discussed how accepting the use of vaccine *by joining other women to have it* impacted their matrimonial relationship. Seun, an informal centre participant recalled how avoiding going to the primary health centre and *joining other women* in an informal centre to vaccinate made her ‘feel’ in place with the family practice of using faith-based centre. Seun said:

“In this pregnancy?, yes!...I joined other women to have it here, because we don’t patronise the centre (PHC), we often come here, because my husband comes to this church as well as my mother-in-law” (Seun, Setting B, 22 years old).

6.3.2 Social acceptance

This refers to the discussions of the pregnant women about the influence of social acceptance of routine vaccination on their RVP. The pregnant women discussed the ways in which socially acceptable routines influenced their RVP. This influence according to the participants was particularly evident in the completion of recommended vaccine doses for child-bearing age women. During pregnancy, the pregnant women’s habitus was about what other women were doing to achieve a new social status, with routine vaccination during pregnancy rather than after delivery. While the pregnant women’s use of vaccine was driven by the likelihood of positive pregnancy outcome if vaccinated, it was used mainly in a way that conformed with socially acceptable routines of pregnancy. According to Mrs Alani, routine vaccination is norm

of pregnancy that has been and has become an automatic practice during pregnancy saying:

“It (vaccination) is what we use during pregnancy, and those older than us used it too, so every pregnant woman is doing it as well” (Mrs Alani, Setting B, 27 years old).

Notably, however, the influence of preceding and current norms of practice reduced as the pregnant women transitioned to motherhood. Some pregnant women in this study who were becoming mothers again attributed reduced vaccination enthusiasm to less pressure on keeping up with the vaccine schedules. Josephine said:

“In my 1st pregnancy, I had TT vaccine, but I didn’t complete the doses for life, I missed it after childbirth, the last two doses, I missed the date and I didn’t complete it...I know they are helpful, but it’s not easy to remember unlike when you’re still pregnant” (Josephine, Setting A, 37 years old)

While most of the pregnant women said that the benefit of using vaccine because other women used it prompted and encouraged them to keep up with the doses during pregnancy, some informal centre participants claimed that their main use of vaccine was mainly to ‘fit in’ with what others were doing. According to Taiwo and Mrs Adeoye:

“When other people take it too, then its ok because they cannot give us something bad, that was why I took it” (Taiwo, Setting C, 39 years old)

“The vaccine?, everybody takes it, every pregnant woman takes it except those who don’t like it” (Mrs Adeoye, Setting B, 26 years old).

The women also expressed concern around the possibility of losing in the ‘game’ by failing to act in accordance with the seemingly unspoken ‘rules of the game’. Taiwo further demonstrated this saying:

“Personally, I feel relax when I have taken it, and I’m not the only one taking it. So... (smiles).. at least with God, me and my child are safe” (Taiwo, Setting C, 39 years old)

6.3.3 Overcoming conformity

This describes the struggles that the pregnant women experienced when trying to conform to the ‘rules of the game’. The rules, which appeared to be informed both by the participants’ motivations and the socially acceptable pregnancy routines jointly to secure beneficial outcome, place more expectations on the pregnant women. This came up during the interviews with some of the FAC participants when they talked about their sense of autonomy and self-confidence in their practice of routine vaccination.

An issue that came up in the discussions of the FAC participants in relation to doing what other pregnant women do was their claim for their personal responsibility to make the vaccination decision. The women seemed to be offended by the pressure to make personal health decisions socially driven by other participants. Ebube, a FAC participant expressed her opinion that she did not have to consider if other women were vaccinating and that she was old enough to make the decision which in her opinion was actually a good decision to vaccinate during pregnancy. Her account revealed what appeared to be the constant struggle among pregnant women who lacked the cultural capital to make health decisions attributed to their sense of autonomy. Ebube further expressed this by:

“You mean what influence my decision whether to take the vaccine or not?... what influences my decision is because I’m in the health line, I don’t have to wait for anyone before I take a vaccine, I don’t have to...at least I’m old enough to take some decisions for myself, and I also know it is for the health of the baby, myself and my baby, so, I don’t need anybody’s permission, it’s my body, if anything goes wrong in my body, it is my body....nobody so, what influences that decision is because I know based on my professional training its right, I can make that decision on my own without waiting for anyone” (Ebube, Setting A, 39 years old)

Another FAC participant expressed their pressure for vaccination decision by acknowledging that routine vaccination was *something that they make up their mind to do*. The self-awareness of the benefit of tetanus vaccine for them and their baby appeared to serve as a form of control over other women’s influence in their RVP and completion of the recommended doses for child-bearing age women. The accounts of Emel who is one of the few that had completed the recommended doses for child-bearing age women showed this:

“I think it’s something that you make up your mind to do, it’s challenging anyway because you need to take the dates so that you don’t miss it, because once you miss you start all again so, me I had my mind on it that I will not miss it because I have been trying since when I was a student, I couldn’t complete it, so when I knew the importance of vaccinating and its benefits for my baby, I had to make sure I didn’t miss it, I just kept an alarm date for it so that I don’t miss any dose, and it helped, so that was how I was able to complete it” (Emel, Setting A, 31 years old)

Bunmi, another formal centre participant said she did not have to seek anyone’s permission including her husband before vaccinating:

” Did I even tell him? (smiles)..... I don’t know if I told him o, probably when I was taking the 1st and the 2nd, but for the rest, I don’t have to ask anyone, I did it on my own” (Bunmi, Setting A, 33 years old)

6.4 Suggested reasons for the inconsistent use of TTCV

In the previous subtheme, I presented the discussions of the participants on the influence of other pregnant women on the pregnant women's RVP. The major aspects of the participants' accounts focused on expected and accepted practice of routine vaccination, the social acceptance of routine and their perspectives on conformity with routine vaccination during pregnancy.

The issues identified by the pregnant women in the use of vaccine was another sub-theme that emerged from the theme titled 'playing the routine vaccination game'. This sub-theme presents the suggested reasons according to the pregnant women that led to irregular and inconsistent routine vaccination. It also included the accounts of the pregnant women on the issue of the understanding of tetanus infection and how these influenced their RVP.

The pregnant women identified different reasons why they did not vaccinate at the due times or received less than the recommended doses during pregnancy. They also discussed the basis for the actions of most of the pregnant women who were becoming mothers again for not completing the recommended doses for child-bearing women from their previous pregnancy. The reasons as identified by the pregnant women can be grouped into a) conflicting schedules and reminders b) recommendations and referrals c) understanding of tetanus infection - the issue of vaccination knowledge.

6.4.1 Conflicting schedules and reminders

"We (pregnant women in religion-based centre) were told, the issue is the day they administer is not my clinic day" (Mrs Alani, Setting B, 27 years old)

"I started on the day I came for booking, even though I had taken TT before, but I did not complete it (smiles), I had to start again" (Irene, Setting A, 28 years old)

"I started my tetanus injection in the last ANC I came for, they (nurses) gave me the first dose, 4 weeks later, I'll have the next dose, and I also asked them if it is only tetanus they will give me, they said yes, and the subsequent doses will be after delivery" (Ebube, Setting A, 39 years old)

The three quotes above indicated different experiences of pregnant women of antenatal centre where they administered vaccines to them during routine antenatal gatherings in their different PAC, which seemed to work in favour of some of the pregnant women on their antenatal day, while disadvantaging others. Irene and Ebube for example did not face the challenge of different vaccination day from antenatal day as in the case of Mrs Alani. They were able to get vaccinated on one of their antenatal days, not having to be booked for a different time because informal centres operated by TBAs do not have access to administration of vaccines. This is because TBAs are community-based providers with no formal training who learn their skills

through apprenticeship from older and experienced TBAs (Sibley et al., 2012). Therefore, the process of routine vaccination in informal centres is shaped by the schedules of the PHC staff. In this regard, it is up to the pregnant women to be willing to show up on the scheduled days which is usually different from their clinic days. Oriyomi, who stated, *“I have not had any (tetanus vaccine),”* and her reason being conflicting schedule when she said, *“till next week, until Tuesday, last Tuesday of the month is when they give us”*. Similarly, this was demonstrated in Iyabo’s response:

“On the appointment for vaccination for pregnant women here, I was not around, they had left before I came around, and it was shortly after then that I fell ill, so the lady that treated me in the centre (PHC) gave me alongside other injections” (Iyabo, Setting B, 34 years old).

This structural challenge seemed to shape the women’s priorities, thus determining their level of commitment to routine vaccination. When Oriyomi, Ayomipo and Taiwo were asked their vaccination status, they said:

“I was supposed to have it last month, I was in my mum’s place and by the time I came, I missed it” (Oriyomi, Setting C, 30 years old).

“I don’t know yet, maybe by Wednesday, that’s the vaccination day here, but I will collect my medications today” (Ayomipo, Setting B, 26 years old).

“I have heard about it, I do take it, but because of the nature of my job, there isn’t much time, I have fixed on the 25th, I will come” (Taiwo, Setting C, 39 years old).

The general convenience of a routine, in this case, routine vaccination seem to shape the level of commitment and the extent of the practice such that the participants’ agency was constrained based on their structural access in the social field (Bourdieu, 1977).

6.4.2 Recommendation and Referral – advice and compliance

“They brought it (vaccine) from centre (PHC) and gave us.... and they told me until after delivery.. I will have the rest, and they documented the date” (Adejoke, Setting B, 25 years old)

“The people at Irolu centre (PHC) bring it here (religion-based centre), so I had it (vaccine) here” (Opeyemi, Setting B, 19 years old)

“Yes, they bring it here from the centre” (Opeyemi, Setting B, 19 years old)

“Here, I had it (vaccine) here (religion-based centre), and there is no side effect, I did scan too, I am asked to come back on the 18th of next month” (Seun, Setting B, 22 years old).

The women’s engagement with routine vaccination, particularly in the informal centres depended on arrangement with PHC staff which may also depend on the convenience of the

process as discussed above. As a matter of collaboration between formal and informal centres in Nigeria, TBAs in informal centres are trained by professional health providers on maternal health to recognise the scope and limitation of their practice, and refer mothers and their infants for immunisation, and family planning services (Agbo, 2013). However, the stories of the women in this study suggested that training of the TBAs on vaccination referral yielded little or no effect as the PHC staff needed to make the arrangements to administer vaccines to women in the IAC. This was because women possibly procrastinated on vaccination after they were advised to go to the PHC for vaccination as seen in Aishat's response:

"I have not, it's only the malaria injection that I have taken, the malaria injection.... but the vaccine injection is what I am yet to take" (Aishat, Setting B, 19 years old)

As opposed to the FAC where recommendation and administration of vaccines were made in the same place, pregnant women in IAC were shown to be prone to delaying or missing their vaccination appointments. However, from the pregnant women's stories, recommendations in all the centres were often not enough for vaccination uptake, there seemed to be an omission in passing detailed vaccination information during antenatal clinics, or the information could be inadequate for the participants to make a logical decision. This was the case of some of the women.

"Vaccines! ...I have not ...I am not sure I came across it, I had my ANC here, yes...there was nothing like that (Deborah, Setting B, 33 years old),

The issue of recommendation and referral may also be related to the health system mandate on vaccine recommenders to implement the use of vaccines, which in turn, shaped the context for recommenders and users' vaccination practices.

6.4.3 Knowledge of tetanus infection

The last issue identified for irregular and inconsistent routine vaccination was issue with the knowledge of tetanus infection. The majority of the pregnant women who participated in the interviews expressed a different kind of knowledge of TTCV, which was extensively discussed under the first sub-theme – vaccination information. This was evident in the participants' accounts or could be inferred from some of the experiences of expected and accepted practice (discussed earlier). In response to the vignette question on the relationship of tetanus disease with tetanus vaccination, most of the IAC participants who had acknowledged they had vaccinated said later in the interview that they pray never to have a reason to be vaccinated against tetanus. Oriyomi, an informal centre participant expressed this saying - *"I know they say tetanus injection, I have not had it and I pray I don't have to" (smiles) (Oriyomi, Setting C, 30 years old)*. The accounts of some of the pregnant women extracted below showed how they expressed their individual lack of understanding of tetanus vaccination.

“I have not seen anyone take the injection before, what I know they do is that when you have a wound, you should promptly treat it, use spirit to clean it, pay attention to it so it can heal on time, but if not, tetanus can infect it at any time” (Temitope, Setting B, 21 years old)

“Maybe because it was my first pregnancy, I don’t know.... oh ok.... I had a wound that time.... I remember.... I had a boil, the carbuncle was big, so, they gave me because of that” (Bose, Setting B, 37 years old)

The accounts of some the FAC participants revealed that they *“they could not explain exactly”* the relationship between tetanus vaccine and tetanus infection. This according to the participants could be due to their lack of attention to vaccination information during antenatal gatherings as some other women related it to *“paralysis”* as the reason they had tetanus vaccine.

“I remember they said it has to do with cord...I can’t even explain exactly, I think the only one I am really informed about is ...what is this thing called.... erm.....jaundice! (Arike,, Setting A, 28 years old)

“Because I know some women, I heard, I’ve not had anyone around me that it has happened to, that they say after giving birth or so they have some seizure and some stuff like paralysis and they die ...I think all those things are the reasons for vaccination, taking it might prevent some kind of infection that might cause such occurrence” (Josephine, Setting A, 37 years old).

6.5 Summary of the third findings chapter

In summary, in this chapter, I have presented the accounts of the pregnant women on the kind of information they held of TTCV and how it influenced their RVP. I analysed the pregnant women’s vaccination information and the influence of other pregnant women on the ways that they practiced routine vaccination. I also explored and presented the participants’ accounts of the reasons that led to the irregular and different levels of use of vaccine during pregnancy. I presented these reasons as conflicting schedules and reminders, recommendations, and referral issues, and finally, I presented the pregnant women’s knowledge of tetanus infection which demonstrated the pregnant women’s personal interpretation of the use of TTCV, which was grossly unreliable.

CHAPTER SEVEN

DISCUSSION OF FINDINGS

“Practice has a logic which is not that of the logician” (Bourdieu, 1990 :86)

7.1 Introduction

In this interpretative study I explored a) the perceptions of pregnant Nigerian women of the use of TTCV in formal antenatal centres (FAC) and informal antenatal centres, and b) the social and structural factors influencing the use of TTCV from the pregnant women’s account. I identified compliance with antenatal centre rules as the major reason for the pregnant women’s vaccination with TTCV. The findings from this study revealed the pregnant women found themselves ‘playing by the rules’ in their PAC resulting in unrelated vaccination practice from the global 5-dose recommendation in a way that vaccination with TTCV was perceived to be over after the child is born. This notion was associated with misinformation and misconception of the risk of tetanus disease. The specific research questions were:

1. How do pregnant women make the choice of the place to seek antenatal care including vaccination with TTCV?
2. How do relationships influence pregnant women’s choice of antenatal care including vaccination with TTCV?
3. What do pregnant women understand of routine vaccination with TTCV?

In order to answer the research questions above, I conducted a qualitative study of the pregnant women’s perceptions of their experiences with the use of TTCV. Drawing on the rich data collected, the study provided an in-depth insight into the processes involved in pregnant women’s use of TTCV. I drew the answers to the research questions from the detailed discussions of the findings in such a way that the answers thread through and across the three major themes in the findings chapters.

7.2 Overall narratives summary of the study

The discussion of findings will begin with the overall narrative summary that emerged from this study, reflecting on the major findings.

The pregnant women in this study engaged with the use of TTCV based on the perception that care givers in their PAC who recommended TTCV to them had their best interest. Therefore, the pregnant women's focus was mainly on the form of care to seek during pregnancy – formal, informal or both where they followed recommended routines including vaccination with TTCV. The decision on the pregnant women's PAC was shown to highly align with relationships and beliefs that they found valuable to their choices. In particular, most IAC participants were relationally influenced in making the decisions regarding where to seek pregnancy care. However, the pregnant women in FAC expressed agency in their approach to pregnancy care, but this was in a much more nuanced way. The IAC participants recognised and aligned with older women in their family for guidance in making decisions regarding PAC and general pregnancy care whereas the FAC participants side-stepped 'unauthorised' advice from family and others by aligning mostly with the biomedical model of antenatal care. As there were different antenatal centres or models of antenatal care, there were also differences in the ways that FAC and IAC participants engaged with pregnancy care including vaccination. Largely, the pregnant women in both formal and informal centres, though at different levels, engaged with the use of TTCV as compliance with antenatal rules. They did so for the purpose of a successful pregnancy outcome and not as a routine to continue after the baby is born, a form of 'game playing'.

Furthermore, there was a disconnect between the pregnant women and their caregivers that resulted from lack of detailed vaccination information during antenatal gatherings. The caregivers were perceived to either hurriedly provide vaccination information or unequipped to provide adequate information to the pregnant women. This may be due to the repetitive nature of antenatal 'health talk' during antenatal gatherings and the culture of getting the 'health talk' segment 'over and done with' as well as the hierarchy between the pregnant women and their caregivers. In response to this, the pregnant women rarely "*ask doctors the meaning of this injection*" during 'health talk' but acted on the assumption that their caregivers shared in their interest of a healthy pregnancy outcome. Consequently, TTCV was perceived as a collective and assumed response to 'status quo' in the antenatal centres. The pregnant women therefore exerted minimal energy regarding the practice of vaccination with TTCV and acted on trust – an 'unspoken' contract between them and their respective caregivers.

The study draws on Bourdieu (1990) theory of practice and his conceptual triad of field, habitus and capital to examine the practical and embodied nature of the pregnant women's conscious and subconscious vaccination actions. That is, the ways in which the pregnant women responded to recommended routines including vaccination, without thinking about it, regardless of the model of antenatal care and to shed light on the dichotomies and struggles surrounding decisions regarding PAC. Bourdieu's theory of practice is helpful in this study in

considering the vaccination responses of the pregnant Nigerian women to the health system in Nigeria to properly frame the logic of the women's 'game playing' with the use of TTCV in their PAC.

The metaphor of game playing in a field indicates the strategy of the pregnant women of successfully getting through the period of pregnancy and doing so with less participation in the process by acting in accordance with routines and antenatal set rules which have been established or as it is used by other women. The pregnant women neither queried the process of the game nor naively acted in accordance with the antenatal set rules but deployed what seemed to be a form of strategy of relating and aligning with caregivers in their PAC, familial relations, and significant others as their 'feel' for how to play the game. From Bourdieu and Wacquant (1992) views, players/agents come to the field with the intentions to either change or preserve its boundaries or forms while they struggle for their rewards. The perceptions of the pregnant women of the use of TTCV revealed the preservation of the practice of one-three doses of TTCV and the symbolic value of TTCV to achieving successful pregnancy outcome.

What is new in this study is that it illuminates the ways in which practice theory works to show the environment/condition under which vaccination with TTCV took place in alignment with those that the women trusted and the relationship that most influence their decisions. In general, the pregnant women unconsciously engaged creative ways to meet the demands of antenatal routines. However, these strategies had both positive and negative impacts on the pregnant women. The positive aspect of it was the creativity of 'getting along' by engaging the use of TTCV to meet their pregnancy and related health needs while the negative effect is health illiteracy that limits their knowledge of TTCV and their vaccination agency which promoted anxiety and encouraged misinformed engagement with the use of TTCV.

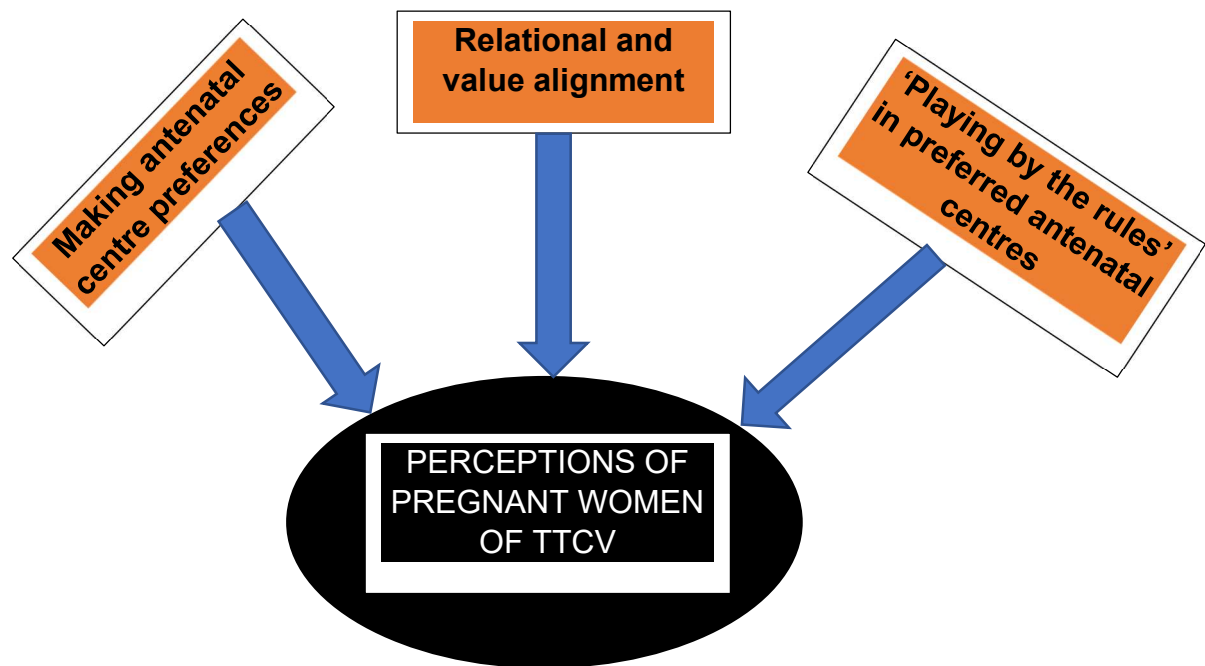


Figure 7.1 Overview of the study main findings

7.3 Interaction of habitus, capital, and field in shaping pregnant women’s perception of vaccination with TTCV

Several studies on vaccination of pregnant women argue focusing on the health benefits that vaccination provides which often leads to neglect of social and contextual aspects of women’s experiences of it (Faria et al., 2021, John et al., 2021, Krishnaswamy et al., 2019, Wilson et al., 2015). With different people and different circumstances, the pregnant women in this study took different positions regarding antenatal centres where they engaged with TTCV. For this reason, the pregnant women who participated in this study engaged with the use of TTCV at different levels, even though it was for a common goal. While vaccination with TTCV was largely carried out as an ‘automatic’ and collective routine, the women engaged in vaccination with different strategies and within varying forms of capital or resources which shaped their perceptions and practice of it.

The discussion of the study is presented in relation to the relevant concepts of Bourdieu’s practice theory – a) Habitus – the dispositional unconsciousness of the pregnant women’s vaccination action b) Capital – the forms of energy or resources that influenced the pregnant

women's antenatal centre decisions including vaccination with TTCV and c) Field – the features of the driving forces/energies in the space of play (antenatal centres).

7.3.1 Habitus – the dispositional unconsciousness of the pregnant women's vaccination action

This section discusses the human nature of the pregnant women of using one to three doses out of five recommended doses of TTCV in the ways that became 'normal' to them. Dispositional unconsciousness is generated from or exists in "practical state, below the level of explicit statement and therefore outside the control of logic" (Bourdieu, 1990: 94). Bourdieu refers to it as tacit knowledge or the 'know-how' (Bourdieu, 1984:387).

7.3.1.1 'Tacit adherence' – justifying the unwritten antenatal agreement to use TTCV as a "raison d'être"

The most striking finding to emerge from the data is the newly discovered practice among pregnant women, mostly by all the participants, of engaging with routine vaccination as maintaining the 'status quo' of antenatal care rather than a deliberate continued use of TTCV after the child is born. This discovery about pregnant women has not been discussed in any of the current research-based evidence even though it appeared to be very common practice across the study settings regardless of the women's PAC. The practice was discussed by all the study participants except for very few of FAC participants (only two intentionally completed the recommended five-dose after delivery).

The plausible explanation given by the pregnant women for this practice was the need to protect the unborn child from the possibility of the consequences of failure to comply with the use of TTCV. Also, the pregnant women used TTCV because it was recommended by their caregivers and that they would not have recommended it to them "*if there was no purpose for it*". This can be analysed using Bourdieu's definition of "*tacit adherence*" as the "interest leading an agent to defend his symbolic capital" (Bourdieu, 1990:121). This could be described as an unwritten, unspoken, and unstated agreement of the use of TTCV between the pregnant women and their care givers to protect the unborn child. Engaging with TTCV was perceived as one of the components of antenatal routines which the pregnant women responded to, based on intuition and the assumption to protect the growing fetus to achieve their goal.

Therefore, the pregnant women's pursuit of successful pregnancy outcome with the assumed interest of their caregivers was their reason for engaging with one to three doses of TTCV during pregnancy only and not continue after delivery. The pregnant women perceived their caregivers as sharing in their interest of a positive pregnancy outcome and that the issues relating to the risks of not vaccinating was mainly centred on the health of the child and not on

the women. They also pointed out that the recommendation and use of TTCV during pregnancy allayed the mothers' fear of the possibility of the child contracting other childhood diseases. Unfortunately, there are no previous or current studies within and outside the study area to support this finding.

7.3.1.2 Pregnant women's 'feel for the game' – compliance with caregivers' advice due to lack of knowledge of TTCV

This study identified that a major structural inequality that constituted the 'normal' practice of one to three doses of TTCV was health literacy. From the current study, more than 80% of the study participants expressed ignorance about tetanus disease and its related preventive vaccine, which was obvious in their responses to the questions about tetanus vaccination. Similar findings are documented in many studies to report poor knowledge of pregnant women on matters relating to maternal vaccination (Fauzia Malik et al., 2021, D'Alessandro et al., 2018). This is also consistent with Awosan and Hassan (2018) and Bello and Aduroja (2017) who found that pregnant women and child-bearing age women generally in Nigeria have relatively poor knowledge of TTCV.

When vaccine users are not familiar with the vaccination information given to them, such users are usually at a disadvantage, especially women with low educational level. Most of the pregnant women engaged in the use of TTCV based on their feelings of trust in their care givers/recommender. Bourdieu (1990:113) in his explanation of the practical sense of entering a field describes the feel for a game as "the giver's undeclared calculation to reckon with the receiver's undeclared calculation, and hence satisfy his expectations without appearing to know what they are". Bourdieu also called it "investment sense", that is, the strategy employed where agents "never know completely what they are doing that what they do has more sense than they know" (Bourdieu, 1990:66-69).

In this situation, most of the pregnant women engaged with the use of TTCV not based on their knowledge of it but did so within their means and trust in the knowledge of their caregivers. They paid little or no attention to the details of TTCV such as the specific disease that TTCV prevents and the lifetime protection that complete vaccination offers. Rather, the women within their levels of understanding, that is, using their levels of capital to achieve their goal, tactically engaged with TTCV by trusting and complying with recommendations from their caregivers. The strategy used by the women according to Bourdieu (1990:16) is "oriented towards the maximizing of material and symbolic profit". The focus here from Bourdieu's perspective is not about the pregnant women engaging with the use of TTCV based on their level of knowledge of it, but about the process through which they engaged with the use of

TTCV within their means and capacity or cultural capital (knowledge) to achieve their goal. They did so not as a conscious plan but for a purpose and as a sense of cooperation with their caregivers whom they believed had the knowledge of TTCV. The finding is supported by previous studies suggesting links between the level of knowledge of diseases and health outcome, especially among reproductive aged women with low education (Maricic et al., 2021, McClintock et al., 2020, Kilfoyle et al., 2016).

7.3.1.3 The pregnant women's perception of caregivers' TTCV information

The findings highlighted that pregnant women perceived caregivers are in a hurry to pass on vaccination information as they often concentrated more on getting their job over and done with during antenatal gatherings. Bourdieu and Thompson (1991:7) noted that when people have knowledge, they are able to “produce expressions *à propos*” that is, express competence – “capacity to produce expressions which are appropriate for particular situation”. They further described competence as a “practical sense”, the skill to “tacitly adjust to the relations of power between speakers and hearers” which becomes the habitus people attune to in specific conditions of a field in order to succeed (Bourdieu and Thompson, 1991:27). Therefore, the pregnant women's account of caregivers' attitude of hurriedly communicating vaccination information could be that the caregivers lacked the skill/resource of effectively communicating vaccination information to the pregnant women or lacked the knowledge of TTCV itself. This findings support the evidence that midwifery education regarding vaccination recognises the role of equipping health professionals to be sufficiently knowledgeable about vaccination in training and practices (Attwell et al., 2019). This further explains why some of the pregnant women found the caregivers to be ‘distant’ in the ways that they related with them which they said contributed to where they chose to seek antenatal care. This finding is consistent with the study conducted by Nganga et al. (2019) on how the quality of information from caregivers increased trust and pregnant women's perception of caregivers' attitude towards them.

Bourdieu (1990) noted that where everyone has interest of winning in a game, they play with what is permissible within the game, that is, within the set rules, but also play with an altogether different logic. The pregnant women's perceptions of their caregivers represented interests which formed the basis of their conduct and judgement, with both parties in constant negotiations for the wellbeing of the growing fetus. This explains how pregnant women and care givers were driven by individual and diverging goals but united in pursuit of a common goal. The care givers were perceived to operate in accordance with the pregnant women's set goal of a healthy child but did not provide them with detailed TTCV information on continued use of it. Therefore, the pregnant women's accounts of the caregivers' focus on the growing fetus and not providing further details showed their way of getting their job done in time, unknowingly losing the value and details in the information that they passed on. This

happening over a period of time lays credence to findings that caregivers themselves lack vaccination knowledge (MacDougall et al., 2015, Herzog et al., 2013, Dabas et al., 2005), hence, they are ill-equipped or have no further or detailed information to pass on to the pregnant women. Bourdieu argued that knowledge, competence, and performance are interconnected and they bring about practices and perceptions and that these practices and perceptions are products of habitus and distribution of resources or power in a field (Bourdieu and Thompson, 1991).

The only two FAC participants who had completed the recommended doses of TTCV for child-bearing age women at the time of the study interview attributed personal efforts and commitment as their major drives. In situations where vaccination information was given to pregnant women in antenatal centres, the focus of discussion was often on the growing fetus. This finding is in line with earlier studies by Yaya et al. (2020) and Awosan and Hassan (2018) that routine tetanus vaccination is often associated with antenatal clinic attendance and the growing fetus. This implies dedicated effort on both the side of the recommender and user to provide adequate and efficient information and follow up to show up on vaccination due dates. Bourdieu in Warde's writing identified the role of 'commitment' in his writings on game, where he identified that the worth of playing in a game is in the commitment to the game (Warde, 2004) regardless of the persons' resources available to play in the field.

Even though the study findings showed that the participants generally lacked and ignored detailed vaccination information, most of the pregnant women, in order to achieve successful pregnancy outcome, complied with recommendations despite the inconvenience in certain centres where caregivers did not have the authorisation to administer vaccines. Again, this relates back to Bourdieu's idea of field as space of action, that is, people appear to obey rules while in the real sense, they act in their own interest and within their resources which he also referred to as energy (Moore, 2012, Bourdieu, 1990).

7.3.2 Capital – the forms of energy or resources that influenced the pregnant women's antenatal centre decisions including vaccination with TTCV

In this section, I discuss the social positions and circumstances within which the pregnant women carried out vaccination with TTCV. An important feature in Bourdieu's perspectives on field is that it produces different forms of energy which help to investigate and collect information on the extent to which people are able to strategise and build resources to their advantage. As a parallel with physical science, Bourdieu (1990:123) regarded resources or

capital accumulated by groups as the “energy of social physics” which reinforce accumulated resources to play in the field.

Bourdieu in his work of field and associated concepts of capital and habitus wrote extensively about four forms of energy/capital used in the space of social action – economic, cultural, social, and symbolic and how they function in interrelated manner. They are convertible forms of energy which Bourdieu defined as “accumulated labour (in its materialised form or its ‘incorporated,’ embodied form) which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labour” (Bourdieu, 1986:241). Put simply, capital is the energy that agents use to reproduce their positions in a social field. The different forms in which capital manifested in relation to relevant findings from the study will be presented.

7.3.2.1 Material/economic energy

One of the societal structures that prevented the pregnant women from exercising their agency regarding PAC or justify the use of IAC was their socio-economic status (SES). SES could be described as economic power which Bourdieu defined as the “root of all forms of capital” or material resources that are “immediately and directly convertible into money and may be institutionalised in the form of property rights” (Bourdieu, 1986: 242). When resources are unequally distributed among a group of people, it brings about limited choice making where some people become more privileged than others. The pregnant women with low SES were negatively impacted and limited in their antenatal centre options as finding affordable antenatal centres became more of a priority than the routines therein.

In this study, the majority of the FAC participants worked in established institutions, where they had the privilege of health benefits to cater to their pregnancy needs, and access quality antenatal centre option. On the contrary, almost all the IAC participants were unemployed, petty traders and low-income earners who paid out of pocket for their health-related needs, and as such had limited access to quality health care. The pregnant women’s PAC were distinguished by their economic power. Consequently, their engagement with affordable and ‘popularly known’ alternate antenatal centres, that is the use of IAC became progressively inscribed in their minds (Bourdieu, 1990).

The pregnant women in both formal and informal centres were either concerned about the cost of care or the value of the different antenatal centre options. This could be attributed to an intersection of social and economic capacity with underlying hierarchical structures. In this study, these factors were identified particularly among the IAC participants. Their socio-economic positions were shaped by the interplay of these multiple categories specified in socio-historical context (Sochas, 2019). This revealed that healthcare options, social, and

economic capacity are mutually constructed in the pregnant women's health behaviour (Ganle et al., 2015). Even though the pursuit for rewards in the 'game' and anticipation for benefits became both IAC and FAC participants' priority, the direct effect of economic power was that pregnant women with economic advantage tend to pursue quality antenatal centres more than those who are economically disadvantaged as they were limited in their options (Bourdieu and Wacquant, 1992). Further effects are false perception that pregnancy care is a natural phenomenon that does not necessarily require 'costly' professional care and seeking skilled health care is mostly necessary in emergency situations, a situation which could add to the statistics of maternal mortality (Fantaye et al., 2019).

The findings from the current study provides supporting evidence that low-income pregnant women were more prone to the utilisation of unskilled pregnancy care when compared to the economically stable group of pregnant women. This is similar to the findings of studies in Nigeria by Amutah-Onukagha et al. (2017) and Osubor et al. (2006) that the reason most pregnant women prefer alternate antenatal care, that is, IAC was basically due to lower cost of care in these centres. The player, in this case, the pregnant women with low financial status and capacity are further limited in the resources they need to possess other forms of resources/capital such as the placing of priority over, and in the pursuance of quality care to their advantage for quality participation in antenatal care, including timely vaccination to succeed in the antenatal field.

7.3.2.2 Habituated cultural energy

In the study setting, the pregnant women highlighted the influence of family (particularly, mothers and mothers-in-law) expectations regarding the ways in which they carried out pregnancy routines and practices. The pregnant women's account revealed that they were oriented and nurtured with these practices, hence it is part of who they are. According to Bourdieu and Thompson (1991:13), habitus "orients actions and inclinations without strictly determining them", in other words, habitus forms individuals and functions as habituated "accumulated capital", or accumulated cultural knowledge (Bourdieu, 1990:56). The goal of habitus is to determine individual choices and preferences - "an infinite capacity for generating products - thoughts, perceptions, expressions and actions" (Bourdieu, 1990:55). Nonetheless, the pregnant women's interest regarding antenatal centres, routine care and practices including routine vaccination varied in relation to family practices. The pregnant women acknowledged the model/approach to pregnancy care that their mothers and mothers-in-law believed and suggested to them, however, the women took to different positions about it. A possible explanation for this from Bourdieu's perspective is that habitus is neither static nor categorically immutable - "systems of durable, transposable dispositions" (Bourdieu, 1990:53). In essence, even though people are primarily and foundationally socialised in certain

ways, they can evolve and be moulded by changing circumstances and experiences. Thus, the possible influence of culture and tradition on their health-seeking behaviour, health practices of pregnancy, and whether to complete recommend vaccine doses, present with varying ideas of internalised beliefs, norms, values, and practices. This creates a wide gap that this study discovered, between the pregnant women that aligned with biomedical practice and those who aligned more strongly with older and other women.

The study illuminated the ways that the sociocultural background of pregnant women played a huge role in their pregnancy routines and RVP. The pregnant women, mostly in IAC gave examples of how much emphasis was placed on what to or not to eat or drink as a way of identifying and connecting with the beliefs that were perceived to have worked for the older women. Traditionally, in the study setting, while most pregnant women embraced compliance with food taboos and practices as being an important precaution to avoid unhealthy babies, other women were either indifferent or unclear about these practices. The pregnant women performed some practices such as drinking 'agbo' (liquid herbal decoction) and eating 'aseje' (herbal concoction) and believed myths such as not walking in the sun. Some of the pregnant women went as far as not drinking cold water believing it could cause convulsion to the baby when they are born. Clearly, as there were different women from different backgrounds, circumstances, and experiences were also different ways of engaging pregnancy routines and practices from different perspectives, hence, the basis for alignment or not of pregnant women with biomedical practice (Thipanyane et al., 2022).

7.3.2.3 Social relations and symbolic energy

The study findings correspond with those of Pembe et al. (2017) and Agampodi et al. (2017) that social relations contribute to the pregnant women's adherence or not to healthy behaviour which also makes them take different positions regarding their PAC to engage with vaccination. Most pregnant women in Nigeria are prone to receiving advice from different people in their community, and this is an important factor in the decision regarding how and what routines the women carry out during pregnancy (Babalola and Fatusi, 2009). In Bourdieu's notion of symbolic power, he defines social relation as "relation of force defined in and by a determinate relationship between those who exercise power and those who undergo it" (Bourdieu, 1979:83), and that this power is "gentle" "invisible" and "unrecognised" such as in "trust, obligation, personal loyalty, hospitality, gifts" and so on (Bourdieu and Thompson, 1991:24). In this study, the people that the pregnant women live and relate with such as older women, other women and their caregivers dominated in their decisions and the pregnant women did not perceive it as such. Rather, the women trusted that the people around them either had the experiential knowledge, know better or were advising them in the women's best interest.

Bourdieu further explains that habitus has the capacity to classify and differentiate practices and works, and that habitus is the specific energy that orients practice to function as systems or instruments of distinctive signs (Bourdieu, 1984). In essence, the pregnant women through their social relations, made use of the different experiences and knowledge of the people they have known and those they related with to conduct pregnancy routines, including vaccination in the ways that seemed acceptable in order to avoid blame. The findings revealed that most of the pregnant women engaged in the use of tetanus vaccine during pregnancy because other women did so and also to appear to their caregivers as 'conforming' to their instructions/recommendations. An interesting finding of the study is the symbolic reward that pregnant women associated with vaccination where they found vaccination during pregnancy socially connecting with other women despite little or no scientific understanding or knowledge of it. This findings suggests the symbolic value of tetanus vaccine is rooted in 'blind' conformity and integrated in the social environment in which the pregnant women live to engage one to three doses of TTCV as their 'normal' practice.

7.3.2.4 Symbolic value of TTCV

The findings in this study showed how TTCV was used by the pregnant women to validate their antenatal practices and distinguish the period of pregnancy from when the baby is born. For most of the pregnant women, engaging with TTCV marked a distinct alignment with biomedicine essential to obtain cultural capital - a new social status of becoming a mother and not as a routine after delivery. The pregnant women's perceptions of their experiences of TTCV were recognised as a common valuable practice that connected both IAC and FAC participants. In this way, engaging with TTCV represented the collective use of biomedicine as a commonly accepted authority to achieve successful pregnancy outcome. As Bourdieu pointed out about an artistic work that "among the makers of the work of art, we must finally include the public, which helps to make its value by appropriating it materially or symbolically" (Bourdieu and Johnson, 1993:78). Bourdieu recognises that there is no value without an audience or a public that accepts it and that the symbolic value of an art, or in this case, the symbolic value of a product (vaccine) depends not only on the vaccine but also on those who consume it (the pregnant women). While vaccination started during pregnancy and ended after delivery for most women in this study, the recognition and value it gains from consumers, that is, pregnant women of childbearing age give the leverage for continued use and a means to sell it to achieve complete recommended doses.

7.3.3 Field – the features of the driving forces/energies in the space of play (antenatal centres)

In this last section, I present in relation to the study findings the concept of the arena including the characteristics of where the actions of vaccination with TTCV were produced, appropriated, and circulated. These are some of the features or approaches Bourdieu uses to define his concept of relational energy.

7.3.3.1 Disguised energy of socio-economic hierarchy and beliefs

The study's findings provide evidence of unequal access to capital (or energy/power/force) in the pregnant women's antenatal care preferences, pregnancy care routines and practices. The pregnant women in FAC were at more advantage of quality care including the ease of routine vaccination than the pregnant women in IAC. This unequal access to capital constitutes the extent to which the pregnant women negotiated a successful pregnancy outcome and a chance for adequate routine vaccination in their PAC. This finding is consistent with previous studies that identified different levels of wealth constitute a major negotiating power for a successful health outcome (Olusegun and Kennedy, 2020, Osamor and Grady, 2016). This presents a situation where pregnant women who felt equipped in terms of possessing the basic knowledge and understanding of quality care were able to make decisions regarding their PAC where they engaged in routine vaccination with TTCV. Whereas the ill-equipped women often depended on older and other women's recommendations and advice to make such decisions.

As discussed earlier, Bourdieu conceptualises capital beyond the notion of material assets or "mercantile exchange" to that which presents itself in different guises and convertible forms (Moore, 2012, Bourdieu, 2002) "whose possession commands access to the specific profits that are at stake in the field" (Bourdieu and Wacquant, 1992:97). He points out the convertibility of different forms of capital is the basis for the strategies of position occupied in social space for which its possession or not is significant in the ways that people experience and access opportunities, situating them in a more or less advantageous position in the field (Bourdieu, 1986).

In the context of this study, the predominant structure is the negligible social hierarchy that attributes authority and influence on the people who possess relevant capital in fields of play. Bourdieu debated that even though material or economic capital which people have unequal access to, is the root of the other forms of capital, there is no one without one form of capital – "depending on the position they occupy in the field by virtue of their endowment (volume and structure) in capital" (Bourdieu and Wacquant, 1992:108). Nevertheless, in the Bourdieusian

perspectives, people are at risk of 'subtle' violence, disempowerment, and disenfranchisement in situations of social hierarchy (Bourdieu, 1990).

From Bourdieu's viewpoint, the IAC participants had capital or the driving force/power, but they seemed to be limited by the societal structure and hierarchy in accessing certain quality of care. That is, access to authorised and legitimate form of antenatal care which Bourdieu describes as "the standard measure of the value of linguistic products", or in this case, the standard measure of the value of antenatal routines including vaccination and pregnancy outcome (Bourdieu and Thompson, 1991:56). This is evident in the accounts of how some of the pregnant women, whom out of respect and regard for older women's advice, indisputably aligned with their mothers/mothers-in-law and other older women, usually the local midwife regarding their routines. The belief, especially of younger women to align with the experiential knowledge of older women led to them feeling afraid of the unknown – a "gentle, invisible form of violence, which is never recognised as such" (Bourdieu, 1977:192).

Social hierarchy is the stratified ranking of members in social group along valued power, influence, or dominance they exhibit, whereby some members are superior or subordinate to others (Magee and Galinsky, 2008) and it is predominant in every society including Nigeria. In this study, the pregnant women highlighted the traditional older women's dominance in reproductive health, especially with regards to pregnancy. A possible explanation is the prevailing traditional belief expressed by the pregnant women that older women who gave birth to them or other women who have had their own children hold first-hand experience of pregnancy and are believed to be in a better position to offer advice on how to conduct pregnancy care. This led to conflicting and different positions regarding the women' PAC. In the traditional setting, mothers-in-law were bestowed the authority and position to nurture and guide their daughters-in-law in feminine matters such as in home making and reproductive health matters. However, this depended on the pregnant women's level of accumulated capital/power in terms of education, age, and socio-economic status. Hence, the result of the strong tendency for pregnant women who possessed less capital to experience 'subtle' control of older and other women regarding the choice of antenatal care more than pregnant women with more capital (Allendorf, 2010, Simkhada et al., 2010, Somé et al., 2013, Fasina et al., 2020). This consciousness of 'culturally expected' responsibility of older women to younger women also puts tension on the older women. Maintaining cultural beliefs may be difficult amidst advancing legitimate knowledge of care. This is because what the older women are used to is treating pregnancy as a natural phenomenon and the easiest way to impose their beliefs on the pregnant women is through 'respectful' hierarchical relation.

Bolin (2012) in his critique of Bourdieu's social field concept argues that the concept underestimates the autonomous state of strong forces such as beliefs that lead agents to act in the ways they do, rather, it gives overwhelming power to the struggle in the field. Although Bourdieu was not explicit about the role of beliefs in his theory, nevertheless, his description of the concept of field and the fact that the field condition is not only driven by accessible and accrued capital but by the belief that the struggle is worthwhile suggests that belief is the product of the different forms of capital (Bourdieu and Johnson, 1993, Bourdieu, 1977). Bourdieu argued that the field is underlined by "explicit and specific rules" (including beliefs) that defines it, and thus, the field becomes the place for exercising agency and beliefs (Bourdieu, 1990:67). In addition, he identified belief as the driver of actions in the field and the ultimate product of field. If a person does not believe in the value at stake, they will care less about struggling over it. This shows in essence that human actions including the conduct of pregnancy routines and vaccination with TTCV consist of the exercise of beliefs in different and disguised forms.

7.3.3.2 The tautological nature of social energy and vaccination action

The current study shows that, in the pregnant women's vaccination with TTCV, there was evidence of limited agency in their negotiations at home, with other pregnant women, friends and acquaintances, their siblings, and caregivers. The nature and extent of the pregnant women's exercise of agency was also observed in their experiences with their caregivers and the women's RVP was influenced both negatively and positively through this experience. Bourdieu argued that individual agencies are "false antinomies with structural necessity". That is, people do not completely exercise agency but that their intentions and choices instead are shaped by their social environment (Bourdieu and Wacquant, 1992:10). This means that people exercise agency, but that their agency manifest through the social world where they live and the social relation that they form with one another. Bourdieu further points out that, for habitus or habitual energy, the individual is not aware they are not exercising agency because their actions are internalised in form of the norms that they see around them. So, the individual or in this case, the pregnant women think they are acting out of their own volition without realising the subtle influence of social energy on their actions. Similarly, Bourdieu argues that it is only possible for a person to become aware that they are not able to express agency when they apply resistance to unfamiliar and uncomfortable situations and circumstances (Bourdieu and Wacquant, 1992). Vaccination with TTCV became the pregnant women's second nature and they perceived it to be irresistible since other women used it too. Their resistance to the nonconformity of the use of TTCV will be further discussed later in this section.

7.3.3.3 The arbitrary nature of energy – the uninformed action of vaccination

A major finding from this study, which is similar to the existing studies is that family and community members have the greatest influence on pregnant women, and this was revealed in this study. Ganle et al. (2015) point to increasing intra-familial and community influence on women's access to, and use of maternal healthcare services including routine vaccination during the period of pregnancy. Furthermore, the influence of family and community members on pregnant women's RVP was found to be both positive and negative from this study. This is similar to the existing studies in that familial and community influences were both positive, serving as social support and encouragement for pregnant women and negative with misinformation and misconception that tetanus vaccine prevents all sorts of disease (Nalubega et al., 2021, Gbadebo Adeyanju et al., 2021, Chimukuche et al., 2022, Wilson et al., 2015). The pregnant women in this study provided the evidence of family and community influence in statements such as - "*everyone else is doing it*", "*gave birth to me*", "*everyone takes it*" and that they are the "*closest*" to them. Bourdieu claims that actions and practices are performed in a way that does not occur to anyone as "absurd, arbitrary, or unmotivated" but with "no other *raison d'être* than that they are socially recognised" as worthwhile (Bourdieu, 1990:18). As a result of this arbitrariness, people often act without thinking about them too much because the understanding of their action is shared by their social environment – family and community members. Therefore, if an action and practice or in this context, vaccination with TTCV is not recognised by family and community members, the women would not associate with the use of TTCV in the ways that they did.

This finding shows that vaccination with TTCV is recognised because of its wider social acceptance. Bourdieu further describes such practices as "ends in themselves, that are justified by their performance; things that one does because they are 'the done thing', right thing to do', but also because one cannot do otherwise, without needing to know why or for whom one does them, or what they mean" (Bourdieu, 1990:18). The findings indicate that family and community members influence is strong on the pregnant women, especially the IAC participants. Most of the pregnant women carried out pregnancy care routines including routine vaccination without them realising the arbitrariness of the routines. Vaccination with TTCV was particularly carried out by majority of the pregnant women unaware of the social approval attributed to it, but felt receptive to what other women in their environment also did (Bourdieu and Wacquant, 1992).

An important factor in the narratives of the pregnant women in relation to what Bourdieu describes as energy in an arbitrary form is the institutions of culture, tradition and religion that instilled fear of the unknown in the pregnant women, their families and community members. The pregnant women strongly identified fear of the unknown as an emotion and sentiments

that shaped their RVP and other related routines. The pregnant women interviewed in this study described their fears as – fear of a negative outcome of having an unhealthy child, fear of being blamed, and fear of regrets associated with non-compliance. This concurs with findings from existing studies especially in Nigeria and other African countries (Chimukuche et al., 2022, Gbadebo Adeyanju et al., 2021, Kilich et al., 2020). The pregnant women's fear of shame and regrets can be viewed in terms of Bourdieu's definition of habitus, where the women internalised an awareness of approval of their families and community members of the use of TTCV. Although the women did so “without consciously obeying rules explicitly posed as such” (Bourdieu, 1990:76) but deployed a strategy of conformity to the social acceptance of vaccination with TTCV in order to avoid the consequences of non-compliance (Bourdieu, 1990).

7.3.3.4 The acts of resistance and nonconformity in vaccination with TTCV

Another feature of field energy discussed by Bourdieu is that “there is no how relations of domination, whether material or symbolic, could possibly operate without implying, activating resistance” (Bourdieu and Wacquant, 1992:80). It is more of an outcome of the struggle in the field that is beyond the control of the players, a way in which the players exert certain forces against the forces in the field to take their positions or produce effects. It could be argued that resistance then, is fuelled by habitus and it is the result of dominance in a field. Although Bourdieu did not explain how his notion of habitus can serve as avenue for resistance against submission or oppression in a field. However, he did mention habitus both informs and is informed by the individual's thoughts, actions, and values, and that habitus influences and causes a person's behaviour (Bourdieu, 1990) including the act of resistance in the antenatal centres (field). Therefore, a person's act of resistance is driven by their agency within habitus and resistance to habitus moulds the habitus from within.

The study identified some elements of resistance of IAC participants to the status quo of antenatal care with the principal aim of disputing the legitimacy of the expertise of FAC caregivers who recommended and showed to have superior knowledge of antenatal care including vaccination (Bourdieu and Wacquant, 1992). The caregivers of pregnant women who had accrued capital/energy to attain a level of professionalism in healthcare practice were undermined by those who seemed not to be benefiting from them. The women undervalued the caregivers' expertise due to their perception of the caregivers as disregarding of their values and expectations because they were perceived to occupy 'inferior social positions' (Bourdieu and Wacquant, 1992:174). Inevitably, FAC pregnant women seemed to highly value health professionals rather than condemn. However, the pregnant women's actions were influenced by structural conditions which made them adjust their habitus to deploying different

strategies regarding their perceptions of health professionals and they justified their choice of approach or model of pregnancy care including vaccination.

In general, from this study, the pregnant women in formal and informal antenatal centres resisted nonconformity in the use of TTCV even though they engaged different strategies to pregnancy care. The women felt obliged to tolerating what they described as “*what has been*”, a myriad of unquestionable expectations placed upon them to achieve the goal of a new social status. Such a disposition was influenced by their context and different social positions, fuelled by a sense of responsibility and the anxiety that comes with it. Specifically, pregnant women becoming mothers for the first time “invested” very strongly in the game (Bourdieu, 1990:66). They used a ‘practical sense’ or ‘feel’ for how to navigate expectations and demands, despite not fully understanding what most of the routines and practices entailed other than to comply. The pregnant women refrained from being resistant or attempting to rebel against the norms and expectations which became their way of doing pregnancy and TTCV. These strategies of vaccination with TTCV of pregnant women in this study further shows that resistance exists wherever agency is exercised, and it is the mirror of the habitus – the concept of conditioned and conditional freedom (Bourdieu, 1990:55).

7.4 Limitations of the study

In this section, I present the main limitations identified in this doctoral research and in the conduct of this qualitative study. Acknowledging and discussing limitations is important in enhancing the quality of the research, correct interpretation of the study by the reader and identifying opportunities for further studies.

The major limitations identified in this study are in relation to the study site, sample size, and the data collection method. With regards to study site, this study was conducted in only three antenatal centres in South-West Nigeria. While the study sites represented formal (hospital-based) and informal (faith and tradition-based) antenatal centres in Nigeria, the collective of these centres alone might be viewed as a limitation as the location of the three antenatal centres do not necessarily represent other antenatal centres in Nigeria. This factor according to Lincoln and Guba (1985) potentially limits the transferability of the findings in this study to other settings. Therefore, I am aware that the evidence from this study may not reflect a larger Nigerian or international perspective.

Also, the study findings are geographically limited to the perceptions of women who were pregnant at the time of the study and not the universal population of childbearing aged women in the South-West region of Nigeria. Although, the 41 pregnant women that I interviewed in

this study came from a diverse social and cultural background, their perceptions still cannot be considered as a representative of all childbearing age women in South-West or the entire Nigeria, so generalising my findings is not possible. However, due to the pluralistic nature of the health system in Nigeria, I consider the research sites represented the different centres that offer antenatal care in Nigeria.

With regard to the study sample size, this research was restricted to women who were pregnant in their second trimester upwards and attending one form of antenatal care or the other. Although initially, I planned to include all pregnant women regardless of their gestational age, this study was not able to capture the experiences of all the pregnant women. The reason was a focus on recruiting participants who were likely to have had the first dose of TTCV as outlined in chapter 3. Furthermore, the findings may be somewhat challenging when focusing on pregnant women who may not have had any dose of the vaccine. The pregnant women in this study were in their second trimester and above who may have had at least one dose of TTCV to explore the perceptions of their experiences of it.

The last limitation identified is the method of data collection. I used in-depth face-to-face interviews as the main method for generating data in this study, so, it was possible that the participants may have provided answers that did not accurately reflect their real thoughts; equally their response may be to give a good impression of themselves. Being aware of this possibility, I adopted an approach of probing to obtain clearer and deeper insights from the pregnant women, as well as develop a non-hierarchical relationship for ease of expression of their views as described in chapter 3.

7.5 Chapter summary

The findings from this study offered in-depth accounts of pregnant women's perceptions of vaccination with TTCV in antenatal centres, including other antenatal care-related routines. The interaction of social and structural forces/energies that influence how vaccination with TTCV is conducted in antenatal centres and carried out by the pregnant women were identified. The difference in the quality of antenatal care and the advantage of access of the pregnant women reflected in their decisions regarding where they sought antenatal care to engage with vaccination which resulted in an irregular and different levels of use of TTCV. The social positions of the pregnant women and the level of their socio-economic capacities distinguished the quality of their PAC and how they engaged in vaccination with TTCV. This is the major reason why the pregnant women engaged vaccination at different levels. Most of the pregnant women sought antenatal care in centres where the caregivers are not authorised

to administer TTCV but only recommend and arrange vaccination date with authorised centres. This also made them prone to misinformation, misinterpretation and missed opportunities.

The subtle influence of social energy in the environment where the pregnant women lived and, in the places where they sought antenatal care was identified with an underlying intuitive pressure to achieve positive pregnancy outcome as the reasons that the pregnant women engaged in vaccination with TTCV. The findings also showed how the pregnant women responded to vaccination with TTCV by resisting nonconformity to the status quo in antenatal centres and not necessarily a routine to continue and complete after the child is born.

Finally, I hope that this explorative study has provided information about the interaction of the vaccination action of the pregnant Nigerian women with the environment where they lived and sought antenatal care. The findings from this study will assist in informing policies on MNTE and serve as reference in designing appropriate and effective communication of TTCV recommendation that meets the information needs of pregnant women to ensure complete vaccination with TTCV.

CHAPTER EIGHT

RECOMMENDATIONS AND CONCLUSION

“Our environment defines our experiences and who we are cannot be separated from where we are from” Malcolm Gladwell, author of Outliers

8.1 Introduction

This chapter presents the recommendations that can be drawn from the study research and the implications of this thesis on practice, future research that would arise from this study and health policy. The chapter ends with a summary of the contribution of the study to knowledge.

8.2 Implications and recommendation

Based on the findings from the present study, recommendations that focus on the strategies to improve engagement of pregnant and childbearing aged women in the complete use of recommended five doses of TTCV are presented.

8.2.1 Implication and recommendation for practice

While the perceptions of pregnant women of recommended vaccines during pregnancy has been considered in the Western context, no previous study was found to have focused on exploring the perspectives of pregnant women of the recommendation of TTCV in antenatal centres in Nigeria. Thus, the pattern of the use of TTCV in the country’s antenatal centres still concentrates on protective dose (at least 3 doses) recommendation by caregivers through health talk during antenatal gatherings which apparently fails to take into consideration the users’ (pregnant women) perceptions of the use of TTCV. The findings in this study suggest the recognition of holistic recommendation tone is vital for adequate use of TTCV where vaccination with one to three doses is perceived as a “*normal thing*” for pregnant women in formal or informal centres or as a pregnancy-focused routine. For this reason, vaccine recommenders should be trained to extend their recommendation beyond the period of pregnancy focusing on motherhood as a whole with effective follow up. Furthermore, findings suggest the recognition of social and cultural values as vital to attract pregnant women to use formal antenatal centres where vaccines are authorised to be administered. Skilled healthcare providers should be equipped with culturally sensitive skills to be able to deliver antenatal care services that meet the social, spiritual, and cultural needs of pregnant and childbearing age women. Formal antenatal centre professionals should be aware of cultural expectations of

people in their environment so as to attract more pregnant women to antenatal centres that recommend and administer vaccines. This will reduce the problem of conflicting schedules, missed appointment, misconception, and misinformation.

Findings from this study portray women's priorities during pregnancy and how this affects the ways that they perceive the use of TTCV within their day-to-day life. It was found that compliance with antenatal centre rules was the main reason for the pregnant women's use of TTCV in this study. In discussing their compliance with the use of vaccine in the antenatal centres, the pregnant women were not so concerned with the use of vaccine, rather, it was about where to seek antenatal care to follow recommendations therein. Moreover, there were different capacities of access to the centres and the ways that the pregnant women justified their antenatal preferences. For example, while the choice of antenatal centre for some pregnant women was about the attitude of care providers and a matter of one's *strength*, that is, a matter of money or affordability, other women emphasised the assurance of safety as their criterion for choosing antenatal centre. This points to the importance of the recognition of sociocultural context within which healthcare system and skilled healthcare providers can encourage adequate use of vaccine. Vaccine recommenders need to pay attention to what is important to the women – their preferences, values, main concerns, and circumstances in discussing preventive health routines such as vaccination. Future work to increase adequate uptake of TTCV in Nigeria therefore should be sensitive to women's idea of what preventive care is to them.

Since this study focused on the reasons that pregnant women use TTCV in the ways that they do, that is, 'normal' two to three doses with less attention to completing WHO recommended five doses, the findings from the study identified several factors informing this behaviour. Some of the identified reasons include a) the arbitrary nature of the use of vaccine, b) the culture of fear of the unknown c) the underlying informality of vaccination, d) the symbolic value of vaccine itself, e) avoidance of blame and f) conforming with authority or knowledge. Future vaccine recommendations need to address and consider these attitudes and beliefs to improve pregnant and childbearing age women's engagement with the use of TTCV, particularly, in meeting the MNTE target. The findings of this study suggest that knowledge of TTCV of vaccine recommenders and users is a vital aspect to deliberate and effective vaccination. Therefore, one of the steps to improving vaccination should be directed towards care provider effort of passing vaccination information in simple and explicit manner, that is, in a language that the user understands. Furthermore, retraining skilled care providers and equipping informal centres with adequate vaccination information to disseminate to pregnant women is vital to minimising misconception and misinformation, together with some levels of logical engagement of vaccine users.

The study also highlights the strong familial connections and observation of other pregnant women as being critical to the routine vaccination practice of the pregnant women. Furthermore, the women valued the validation of other users, as well as collective involvement of all pregnant women which gave them the confidence to vaccinate. It is reasonable to suggest that adequate and complete vaccination with TTCV should promote vaccination knowledge. Development of vaccine information platforms for social groups through monthly messaging to share vaccine knowledge in simple terminologies and follow up on appointments would probably be beneficial in facilitating adequate vaccination. The findings of this study therefore suggest maximising the advantage of the social nature of vaccination.

8.2.2 Implication and recommendation for future research

This study has highlighted areas that are appropriate for further investigation which will be presented here as recommendations for future research. Firstly, in carrying out this study, it was particularly difficult to find qualitative research literature on pregnant women's experiences and perceptions of routine vaccination with TTCV in Nigeria. For this reason, there appears to be a need for future research to focus on understanding and exploring perspectives in Nigeria, with a view to mapping adequate and effective plan and implementation for existing and new vaccines countrywide. Secondly, since this study focused only on investigating pregnant women in antenatal centres, their experiences and perceptions may differ significantly from those who do not attend antenatal care services, thus not enrolled in this study. Future research should be directed towards investigating the perceptions and understanding of other pregnant women of antenatal and routine care including vaccination.

The findings from this study also raised questions related to the broader issue of non-pregnant childbearing age women of the perceptions and experiences of vaccination with TTCV. Future research should be directed towards exploring non-pregnant childbearing age women's use of TTCV, particularly within the Nigerian setting. Several issues could be addressed such as a) the understanding of non-pregnant childbearing age women of TTCV and b) what non-pregnant childbearing age women perceive of the use of recommended five-dose TTCV. Moreover, future research could also be conducted to compare pregnant and non-pregnant childbearing age women's perceptions and experiences, to investigate how social status interplays with knowledge of vaccine and how gender roles influence perceptions and experiences. An important finding from my study is the interaction of the place of antenatal care (the Nigerian health system) with the individual dispositions, their socioeconomic status, cultural capital (knowledge), the individual conditions/circumstances, and their social environment in their perceptions of the use of TTCV. Further research could be directed towards investigating how these interrelated factors can inform other vaccines. In addition, a

comparative study of the perceptions of pregnant women's experiences of TTCV in other tetanus high-risk regions could be conducted.

8.2.3 Implication and recommendation for policy

Health research literature has shown a wide gap between evidence and enactment of public health policy (Cairney and Oliver, 2017, Brownson et al., 2009). The challenges identified to influence the translation of research evidence into policy include lack of time, resources, and support for engaging researchers in the dissemination of results. Equally, it is possible that academic research is not reaching policymakers in 'loud and clear' quality reports or that the policymaker lack the competence to understand research evidence (Brownson et al., 2009). Brownson et al. (2009) further identified that for prompt enactment of policy, reports should not be lengthy, should show public health burden, demonstrate priority, relevance, and be compelling. For these reasons, for research reports to be effective, the act of persuasion should consider realistic and emotional appeal in presentation of research evidence.

In an effort to combat the challenge of supply and the use of vaccines in Nigeria, the Federal Ministry of Health developed the first Nigeria Vaccine Policy in September 2021 with the goal to achieve vaccine availability and self-sufficiency in Nigeria (FEDERAL MINISTRY OF HEALTH, 2021). The objectives of the policy include a) local vaccine production and ownership b) improved accessibility of vaccines to optimise utilisation c) support for research and development of existing and new vaccines d) encourage public/private partnerships for the local production of vaccines and vaccine research and development. However, very little is known about the real needs of proposed vaccine users in Nigeria; in particular, how or if the strategies and plans set out by the government in meeting the need to vaccinate the people are in any way effective. As discussed in section 1.4.4, Nigeria is still struggling with MNTE where tetanus infection is responsible for about 4% of neonatal deaths and only 67% of women receiving at least four skilled antenatal care and about 62% of them receiving at least two protective doses of TTCV, way less than 80% required by WHO for MNTE (Nigeria Demographic and Health Survey - NDHS, 2018, WHO, 2019). Morhason-Bello et al. (2022) provide empirical evidence of factors associated with the uptake of TTCV. In their research, it was revealed that two factors consistently associated with higher odds of TTCV uptake – skilled antenatal care attendance and geographical location. These two factors can be linked to failure of the government in meeting the primary needs of pregnant and childbearing age women in terms of health system failure.

Their findings in this study show that pregnant women are willing to adequately engage vaccination. However, it was found that independent factors such as a) perception of pregnant

women of the unfriendly and insensitive attitude of healthcare professionals b) long waiting time and, c) access and d) the cost of care deter most pregnant women from using skilled healthcare where vaccines are administered. Additionally, it was also found that primary health centres arrange and fix date and time to administer TTCV to pregnant women who attend informal centres, hence the conflicting schedules and missed opportunities. Therefore, based on these findings, pregnant women use TTCV at their own convenience and depending on their priorities. This highlights the issue of the wide gap between evidence and policy where the government aims to improve availability and self-sufficiency in vaccine production while vaccine users are not showing up in the health facilities. The implications of these findings can be used to inform the policymakers to develop policies that cater to the primary issue of the non-use of health facilities and the delivery and administration of vaccine in informal centres. Furthermore, the study findings provide an additional source of empirical support in informing future health policies which aim to promote vaccination campaign and programmes that are sensitive to the structural and social issues that are crucial to adequate uptake of TTCV by pregnant and childbearing age women in Nigeria.

8.3 Conclusion and contribution to knowledge

The aim of this research study was to explore how pregnant women in different antenatal centres in Nigeria perceive routine vaccination with TTCV and examine factors which influence this perception. The findings that emerged from this study suggest that ensuring a healthy baby and avoiding blame are strong motivational factors for pregnant women's use of TTCV. All the participants conformed to vaccination as a rule of antenatal care where they tried to maintain a 'status quo' in the antenatal centres regardless of their level of knowledge of the vaccine. The pregnant women's main motivation for engaging vaccination was mainly driven by their subjective interests and personal desire for healthy and positive pregnancy outcome, hence, when the baby is born, vaccination would be over.

Also, the pregnant women perceived their caregivers/vaccine recommenders to have a good knowledge of TTCV for them to have recommended it to them and trusted that they shared their interest of a healthy pregnancy outcome. These findings reflect local and international literature on pregnant and childbearing-aged women's vaccination behaviour, however, there are a number of areas in which these findings reflect pregnant Nigerian women's uniqueness. For example, the issue of the informality of the response of the pregnant women to vaccination. This is an important factor in disseminating adequate and effective vaccination information. Therefore, the implication of this study supports the need for changes to and the development of innovative, deliberate, constructive, and efficient TTCV recommendation that

targets motherhood and not just the period of pregnancy to ensure adequate and complete use of TTCV. If the conclusion of my study is confirmed by future research, there will be a case for further development of the 'tone' of TTCV recommendation in antenatal centres in Nigeria. This corroborates the WHO media briefing on the concern for vaccination misinformation and disinformation which undermine the efforts of routine vaccination in health centres (WHO, 2023).

To conclude, as identified, qualitative research regarding perceptions and experiences of individuals of vaccination in Nigeria are limited. The attention of this study to the interaction of the Nigeria health system with the dispositions of the health system users to provide insight into the social nature of vaccination with TTCV makes this study distinctive. Therefore, this study contributes to the body of knowledge on vaccination behaviour and practice in the Nigerian context as it represents an innovative way of investigating perceptions of vaccination and confirms that pregnant women perceived vaccination to be largely about making antenatal centre decisions and following recommended routines therein, including vaccination with TTCV.

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APPENDICES

Appendix I



Ref: NURS042

Aromoke Sanjo-Odutayo
PhD Researcher
University of Edinburgh
Medical School
Teviot Place
Edinburgh
EH8 9AG

SCHOOL OF HEALTH IN SOCIAL SCIENCE
The University of Edinburgh
Doorway 6
Medical Quad
Teviot Place
Edinburgh

E-mail:

Tel: 0131 650 3042

16/10/2019

Dear Aromoke,

APPLICATION FOR LEVEL 2/3 APPROVAL

PROJECT TITLE: UNDERSTANDING THE VACCINATION DECISION-MAKING OF PREGNANT WOMEN IN NIGERIA

Thank you for submitting the above research project for review by the Section of Nursing Studies Ethics Research Panel.

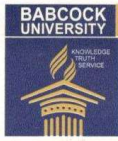
I can confirm that the submission has been independently reviewed and was approved on 14 October 2019.

Should there be any change to the research protocol, it is important that you alert us to this as this may necessitate further review.

Yours sincerely

Julie Watson
Lecturer/Research Fellow
Nursing Studies

Appendix II



BABCOCK UNIVERSITY HEALTH RESEARCH ETHICS COMMITTEE

Our Ref. NHREC/24/01/2018 Your Ref. BUHREC551/19 Date: October 30, 2019

NAME OF PRINCIPAL INVESTIGATOR: SANJO-ODUTAYO AROMOKE

**TITLE OF STUDY: ASSESSMENT OF DECISION-MAKING ON VACCINATION
UPTAKE AMONG PREGNANT WOMEN IN IKENNE LOCAL
GOVERNMENT AREA, OGUN STATE, NIGERIA.**

RESEARCH LOCATION: NIGERIA.

NOTIFICATION FOR ETHICAL APPROVAL

Babcock University Health Research Ethics Committee has approved your research proposal and other related materials after the necessary reviews and corrections.

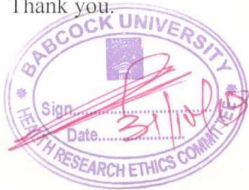
The National code for Health Research Ethics requires that you comply with all institutional guidelines, rules and regulations. All forms and questionnaire must carry the assigned BUHREC number. No changes are permitted in the research without prior approval by the committee.

Please, note that the committee will monitor the research study. All data collection must be completed within twelve calendar months (One year), from the date stated on this approval.

You are expected to give a progress report of the investigation and submit a final copy of the research to the committee.

This approval is with effect from October 30, 2019.

Thank you.



Professor S. O. Fapohunda
Chairman, Babcock University Health Research Ethics Committee

Babcock University Health Research Ethics committee (BUHREC)

...A Seventh-day Adventist Institution of Higher Learning
Ilishan Remo, Ogun State, Nigeria. buhrec@babcock.edu.ng

Appendix III

Ikenne Local Government

P.M.B. 2003 Ikenne Remo, Ogun State 030-630634, 630644.



IKLG/PHC/10
Ref PRIMARY HEALTH CARE DEPARTMENT

23rd December, 2019.

PERMISSION TO STUDY ON VACCINATION DECISION-MAKING IN PREGNANCY

This is to convey the Management approval to you to conduct your study among pregnant women in selected wards of the Local Government.

However, you are requested to forward a copy of your findings to the department to further enhance service delivery across the Local Government.

Thank you.

Sawgudhe

Dr. (Mrs.) Ogunsilu E. A.,
Principal Medical Officer, Ikenne
MEDICAL OFFICER OF HEALTH
IKENNE LOCAL GOVT
IKENNE

Appendix IV



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Phone +44 (0)1316503888

Email :

Understanding the vaccination decision-making of pregnant women in Nigeria **PARTICIPANT INFORMATION SHEET GATEKEEPER**

Ethics Approval Reference: [Insert]

You are being requested to invite pregnant women to take part in a research study by the University of Edinburgh. The purpose of the research is to gain the perspectives of approximately 15 pregnant women in your setting about vaccination decision-making. This will be conducted through in-depth interviews and will be used anonymously for this research or may be shared with other researchers in the future. A copy of the participant information sheet is enclosed for your information. Should you have any questions regarding this study, please do not hesitate to contact me by email () or by telephone (08033505199).

If you are happy to take part by inviting pregnant women in the study, the researcher will contact you to have a conversation about the topic of the research. This will give you an opportunity to ask any questions you have about the study. The researcher will ask you if you are happy to invite pregnant women, if you do not agree, the researcher will leave. The conversation will last about 10 minutes.

1. ***What is this research for?***

Neonatal tetanus is one of the infectious diseases causing deaths of children within one month of birth in sub-Saharan countries. Vaccination during pregnancy is an effective preventive intervention aside personal hygiene, infection prevention and control. It is the most feasible way to reduce neonatal morbidity and mortality numbers, however, the decisions women make about vaccination and other health-related issues during pregnancy are not always based upon recommendations from healthcare professionals or women's status but on personal beliefs and/or in agreement with expected norms or values. For this reason, some pregnant women fully or partially make use of maternal services because of the expected responsibility placed on them, or based on their personal opinion, which contribute to the present high rate of neonatal deaths in Nigeria. Little is known about how women make health decisions during pregnancy, especially in relation to vaccination.

The researcher would like to find out more about how women make decisions about vaccination during pregnancy as one of the maternal services for every pregnant woman, so public health experts and vaccinators can better support pregnant women with vaccination decision-making.

2. ***Who is the researcher?***

The researcher is Aromoke Sanjo-Odutayo from the University of Edinburgh

3. ***Why have I been requested to invite participants?***

You have been requested to invite pregnant women because you have women who are pregnant in your purview who may have opinions on health decisions that they make during pregnancy including vaccination.

4. ***Do I have to take part?***

No-participation request is entirely voluntary. If you are unsure if you want to take part, you can ask questions about the research before deciding. If you do agree to take part, you can decide to stop at any time without explanation. You do not have to give a reason if you do not want to take part. Nothing bad will happen if you do not want to take part.

5. ***What will happen in the study?***

If you are happy to take part by inviting pregnant women in the study, the researcher will contact you to have a conversation about the topic of the research. This will give you an opportunity to ask any questions you have about the study. The researcher will ask you if you are happy to invite pregnant women, if you do not agree, the researcher will leave. The conversation will last about 10 minutes.

6. *Are there any potential risks in taking part?*

While the risks are low, the researcher is aware that talking about pregnancy can be emotional for women. This is why the researcher will assure you not to ask any details about pregnant women, such as marital status, where they live etc. - the researcher cannot tell anyone what they don't know. All information will remain confidential and the researcher will never share any information at all with the police, immigration authorities or any other UK or Nigeria government organisation.

There still remains a small risk that talking about decision could cause women to become upset, sad or angry. The researcher is a qualified nurse and used to working with women and pregnant women, they are very welcome to speak to the researcher about such feelings if they come up. If they experience a high level of distress, the researcher can help them connect with a social worker who understands what they are going through.

7. *Are there any benefits in taking part?*

Depending on the pregnant woman's opinion, it may be beneficial for them to be able to talk freely and openly about vaccination views affecting their decision. In the long run, this research will also enable health professionals to offer better support for women in similar situation. As a small sign of gratitude for donating their time, pregnant women will receive a snack pack and drink.

8. *What happens after the study is finished?*

The information pregnant women give will be recorded either digitally or by handwritten notes. It will then be stored on a hard drive that is both password-protected and encrypted, so that only the researcher has access to it. All information will be securely stored for a minimum period of three years after the researcher has written up and submitted their PhD thesis. After that, the data will be deleted.

9. ***Will the research be published?***

The research will be presented in the form of thesis as a requirement for a PhD. The researcher will also write an article for an academic journal read by other researchers and present what has been learned at a conference for other researchers in this area. No individual will be identified but some of the words they say might be written in the journal article.

10. ***Who has reviewed this study?***

This study has been reviewed by and received ethics clearance through the University of Edinburgh Ethics Committee.

11. ***Who do I contact if I have a concern about the study or I wish to complain?***

If you have a concern about any aspect of this study, please speak to the relevant researcher (Aromoke Sanjo-Odutayo) who will do their best to answer your questions. The researcher will reply within 10 working days and tell you how they intend to deal with it.

If you wish to discuss the research with somebody other than the researcher, please contact the Head of School, School of Health in Social Science at the University of Edinburgh, Professor Matthias Schwannauer or

If you wish to make a complaint, this can be done by contacting the University's Research Governance Team via email at researchgovernance@ed.ac.uk or via phone on +44 131 6504327

You can also use the University of Edinburgh Complaints Form:

<http://www.ed.ac.uk/files/imports/fileManager/WEB%20Complaint%20Form.pdf>

12. **Further Information and Contact Details**

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact Aromoke Sanjo-Odutayo on

Yours sincerely,

Name

Job title

Address

Appendix V



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Phone +44 (0)1316503888

Email :

Understanding the vaccination decision-making of pregnant women in Nigeria

PARTICIPANT INFORMATION SHEET

Ethics Approval Reference: [Ref: NURS042]

You are being invited to take part in a research study by the University of Edinburgh. The purpose of the research is to gain your perspectives of vaccination decision-making. This will be conducted through in-depth interviews and will be used anonymously for this research or may be shared with other researchers in the future. A copy of the participant information sheet is enclosed for your information. Should you have any questions regarding this study, please do not hesitate to contact me by email () or by telephone (08033505199).

If you are happy to take part in the study, the researcher will contact you to have a conversation about the topic of the research. This will give you an opportunity to ask any questions you have about the study. The researcher will ask you if you are happy to take part, if you do not agree, the researcher will leave. The conversation will last about 40 minutes.

1. What is this research for?

Neonatal tetanus is one of the infectious diseases causing deaths of children within one month of birth in sub-Saharan countries. Vaccination during pregnancy is an effective preventive intervention aside personal hygiene, infection prevention and control. Little is known about how women make health decisions during pregnancy, especially in relation to vaccination.

The researcher would like to find out more about how women make decisions about vaccination during pregnancy as one of the maternal services for every pregnant woman, so public health experts and vaccinators can better support pregnant women with vaccination decision-making.

2. ***Who is the researcher?***

The researcher is Aromoke Sanjo-Odutayo from the University of Edinburgh.

3. ***Why have I been invited to take part?***

You have been invited because you are pregnant and may have opinions on health decisions that women make during pregnancy which includes vaccination.

4. ***Do I have to take part?***

No, participation is entirely voluntary. If you are unsure if you want to take part, you can ask questions about the research before deciding. If you do agree to take part, you can decide to stop or leave at any time without any explanation. You do not have to give a reason if you do not want to take part or if you want to stop taking part or leave. Nothing bad will happen if you do not want to take part or leave at a later stage.

5. ***What will happen in the study?***

If you are happy to take part in the study, you can contact the researcher via phone (08033505199) or e-mail () to agree on a time and place to have a conversation about the topic of the research. Only you and the researcher will be present. Before the conversation starts, the researcher will confirm that you agree to take part in the study and ask you if you are happy for it to be recorded on a voice recorder, if you do not agree, the researcher will take written notes instead. The researcher will explain to you that in order to protect your identity, you should not tell them your real name or any personal details, such as your marital status or where you live. You can also refuse to answer questions you do not want to answer. Nothing bad will happen if you do not answer

a specific question. The conversation will be around your response to critical and probing questions relating to vaccination decision-making and it will last about one hour.

The researcher will then look at all the recordings/written notes and remove anything that could lead to you being identified. The researcher will then share the overall results of the study and what they have learned in an anonymised way with public health experts, vaccinators and other researchers, to enable them to better support pregnant women's decision to vaccinate.

6. ***Are there any potential disadvantages or risks in taking part?***

While the risks are low, the researcher is aware that talking about pregnancy can be emotional for women. This is why the researcher will not to ask you any details such as marital status, where they live etc. - the researcher cannot tell anyone what they don't know. All information will remain confidential and the researcher will never share any information at all with the police, immigration authorities or any other UK or Nigeria government organisation.

There is a small risk that talking about decision could cause you to become upset, sad or angry. The researcher is a qualified nurse and used to working with women and pregnant women, you are very welcome to speak to the researcher about such feelings if they come up. If you experience a high level of distress, the researcher can help you connect with a social worker who understands what you are going through.

7. ***Are there any benefits in taking part?***

Depending on your own opinion, it may be beneficial for you to be able to talk freely and openly about vaccination views affecting your decision. In the long run, this research will also enable health professionals to offer better support for women in similar situation. As a small sign of gratitude for donating your time, you will receive a snack pack and drink.

8. ***Will my taking part be kept confidential?***

All information we collect during the course of the research will be kept confidential and there are strict laws which safeguard your privacy at every stage. The information you give will be recorded either digitally or by handwritten notes. It will then be securely stored on a hard drive that is both password-protected and encrypted, so that only the researcher has access to it. The researcher will not ask you any details such as marital status, where you live etc. The researcher cannot tell anyone what they don't know. All information will remain confidential and the researcher will never share any information at all with the police, immigration authorities or any other UK or Nigeria government organisation. Your consent form will be stored separately from all other study data and will be destroyed by 2022 after the study has finished. The voice recordings will be stored securely on passworded personal computer and will be destroyed as soon as they have been transcribed (written up).

9. ***What happens after the study is finished?***

The information you give during interviews will be recorded either digitally or by handwritten notes. It will then be securely stored on a hard drive that is both password-protected and encrypted, so that only the researcher has access to it. All anonymised information will be stored for a minimum period of three years after the researcher has written up and submitted their PhD thesis. After that, with your consent, the data may be used in the future by other researchers.

10. ***Will the research be published?***

The research will be presented in the form of thesis as a requirement for a PhD. The researcher will also write an article for an academic journal read by other researchers and present what has been learned at a conference for other researchers in this area. No individual will be identified but some of the words you say might be written in the journal article.

11. ***Who has reviewed this study?***

This study has been reviewed by and received ethics clearance through the University of Edinburgh Ethics Committee.

12. **Who do I contact if I have a concern about the study or I wish to complain?**

If you have a concern about any aspect of this study, please speak to the relevant researcher (Aromoke Sanjo-Odutayo) who will do their best to answer your questions. The researcher will reply within 10 working days and tell you how they intend to deal with it.

If you wish to discuss the research with somebody other than the researcher, please contact the Head of School, School of Health in Social Science at the University of Edinburgh, Professor Matthias Schwannauer or

If you wish to make a complaint, this can be done by contacting the University's Research Governance Team via email at researchgovernance@ed.ac.uk or via phone on +44 131 6511619

You can also use the University of Edinburgh Complaints Form:

<http://www.ed.ac.uk/files/imports/fileManager/WEB%20Complaint%20Form.pdf>

For general information about how we use your data go to:

<https://www.ed.ac.uk/records-management/privacy-notice-research>

13. **Further Information and Contact Details**

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact Aromoke Sanjo-Odutayo on

Yours sincerely,

Name

Job title

Address

Appendix VI



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Phone +44 (0)1316503888

Email :

ID:

Participant Identification Number for this study:

CONSENT FORM

Title of Project: Understanding the vaccination decision-making of pregnant women in Nigeria

Name of Researcher: Aromoke Sanjo-Odutayo

Please initial box

1. I confirm that I have read the information sheet (Version1, / /20...) for the above study.

I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected.

- 3. I understand that relevant sections of data collected during the study may be looked at by individuals from the sponsors (University of Edinburgh) where it is relevant to may taking part in the research.
- 4. I agree to my interview being audio-recorded
- 5. I understand that the audio-recorded information I provide may be anonymously used by other researchers in the future.
- 6. I agree to take part in the above study

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

Copy (x1) to be given to participant. Original (x1) to be kept by researcher.

Appendix VII



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Phone +44 (0)1316503888

Email :

Ìgbanilaaye:

Igbanilaaye olùkopa:

FỌ̀Ọ̀MÙ ÌFOHÙNSÍ Àkọ̀lé: Mímọ̀ Ọ̀ye Àwọ̀n Aláboyún ní Orílẹ̀-èdè Nigeria nípa Gbígba

Abẹ̀ré Àjẹ́sára

Orúkọ Oníwàdí: Aromoke Sanjo-Odutayo

- | | Fi amin si |
|---|--------------------------|
| 1. Mo jeri wípé mo ti ka ìwe àlàyé nípa iwadi tí àkọ̀lé rẹ̀ wà lóke (Version1, / /20...)
Mo ti ní ànfàní láti ronú lori iwadi bèyeni gbogbo ibeere mi ni a ti dàhùn yéke-yéké. | <input type="checkbox"/> |
| 2. Ó yé mi wípé a ko fipá múmi láti kópa ninu iwadi yi àti wipe mo lee jáwọ̀ nínú ìkópa mi nígbà-kúgbà ti o ba wu mi lai jẹ pé ẹnikẹni nte ẹtọ̀ mi lábé òfin mólẹ. | <input type="checkbox"/> |
| 3. Ó yé mi wípé àwọ̀n amọ̀ye nípa abala kọ̀ọkan iwadi yi láti ọ̀dọ̀ àwọ̀n onígbòwọ̀ (University of Edinburg) le ẹ̀ ẹ̀ àyẹwo ìdáhùn mi sí ibeere gégébi olùkópa | <input type="checkbox"/> |

4. Mo faramọ wípé kí a gba ohùn mi sílẹ.

5. Ó yé mi wípé, ní ojọ iwájú, àwọn oníwàdí miran lee lo ohùn mi ti a gbà sílẹ.

6. Mo faramọ ìkópa nínú iwadi yii

Orúkọ olùkópa

Ojọ

Ìbuwólù

Orúkọ ẹni ti o ńgba ìfohùnsí

Ojọ

Ìbuwólù

Ẹda-iwe (x1) fun olùkópa. Ojulowo (x1) fun oníwàdí.

Appendix VIII



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Phone 0131 651 3969
Fax 0131 650 3891

Email: health@ed.ac.uk

Interview guide

Instruction:

Pregnant woman should agree to participate in the interview with notice that the interview will be recorded either by audio recording or writing transcript. Information sheet about the study and informed consent should be practiced prior to the interview.

Interviewee:

Pregnant woman at any stage of pregnancy and willing to be interviewed and can contribute to the study.

Introduction:

Introduce myself and reintroduce the study purposes

Obtain written consent

Demographic data:

Questions regarding participant's information and data will be collected first including; name (pseudonyms), age, educational level, profession/occupation, employment status, ethnicity, religious belief, monthly income, number of pregnancies and number of children.

Introductory questions

- Thank you for taking part in this study and I wonder if you could tell me a little about yourself and your family?
- Could you tell me how your pregnancy is going? Are you well? Have you had any problems? Is there anything you are worried about?

Main questions

- Since this pregnancy, can you tell me how you feel as an expectant mother? Any responsibilities and why?
- In your opinion, what do you think a healthy pregnancy is?
- What things have become necessary to you in this pregnancy? And why?
- And what sorts of things do you do to stay healthy and keep your baby healthy too?

- Can you tell me about your personal experience of being pregnant? Have you ever had a vaccine while pregnant? If yes, why did you think this was necessary? If no, why not? What were the reasons that you didn't vaccinate?
 - What, or who, influenced your decision to vaccinate? Or not to vaccinate?
 - Can you tell me about your friends and family and their experiences of vaccination while pregnant? Do you know if they had vaccinations? If so, why? If not, why not?
 - Is vaccination something you have talked about with your husband or family or friends? What was their opinion on vaccination?
 - Can you tell me when you first heard about vaccination during pregnancy? Who told you about this? [*Probe further: medical doctor/nurse/midwife or other sources?*]
 - In your view, how would you describe the idea of vaccinating during pregnancy?
 - Why do you consider it important or otherwise?
Could you share with me whose advice you would listen to the most when it comes to decisions you make during pregnancy?
 - I am interested in neonatal tetanus and wondered if you know anything about this? When did you hear about it? Do you know about a vaccination against it? Can you tell me if you have had this vaccination and if so, why? If not, why not?
-
- I am really interested to know about your experience and would like to know if you could advise other pregnant mothers, what advice would you give? Can you share with me some of information, instruction or recommendation you have received during your pregnancy? From where and who?
 - In your opinion, to what extent does the information you get affect you? Confused, loved?
 - Of all the information you get, which is most important and why is that?
 - Thank you for your time. Is there anything you would like to ask or add?

DEMOGRAPHIC DATA

Name (pseudonyms)

Age as at last birthday

- a.18-24
- b.25-34
- c.35-44
- d.45-54

Highest level of completed schooling

- a. No formal education
- b. School with no graduation

- c. Completed high school
- d. In university/polytechnic, not yet graduated
- e. Completed first degree
- f. Postgraduate/ professional college

Occupational status

- a. No trade/technical/vocational training
- b. Completed trade/technical/vocational training
- c. Skilled/professional training

Employment status

- a. Unemployed
- b. Self-employed
- c. Employed full time/part time on salary

Monthly income (₦)

- a. Less than 30,000
- b. 40,000- 70,000
- c. 80,000-110,000
- d. 120,000 and above

Number of children

- a. None
- b. 1-3
- c. 4 and above

Number of pregnancies

- a. 1-3
- b. 3-5

- c. 5 and above

Number of household members

- a. 2
- b. 3-5
- c. 6 and above

Ethnicity

- a. Yoruba
- b. Igbo
- c. Hausa

Spoken language

- a. Vernacular only
- b. Vernacular and Pidgin
- c. Vernacular and English
- d. Vernacular, English and other foreign language

Religious belief

- a. Christianity
- b. Islam
- c. Traditional

Supplementary questions

Choice of antenatal centre	
1	How did you choose to use this centre, is it an agreement between you and your spouse?
2	If not, who did?
3	Why did you choose here?
4	Do you have any friend who uses this centre?
4	Does everyone you know use this place?
Knowledge of vaccine	
1	When was the 1 st time you heard about vaccination, who told you?

	Have you been told about vaccine in this place? have you been told about other things and what are they?
2	In your own view, why do you think you should use it?
3	What does the vaccine do?
4	How many have you had?
5	How many are you expected to have?
	Spirituality or belief
1	Do you think coming here has something to do with safe delivery?
2	What are the things they do here that are different from the hospital?
3	Do you belief in vaccination and why?

Appendix IX

ÌDARÍ ÌBÉÈRÈ

ÌTÓSÒNÀ:

Àwọn aláboyún gbodò gbà láti kòpa nínú ifòrò-wáni-lènu-wò yí pèlú àlàyé pé olù- ifòrò-wáni-lènu-wò yoo fi èrò gba ohùn wọn sílẹ̀ tàbí kí o kọ̀ idáhùn wọn sílẹ̀.

Àwọn olùkópa ti gbodò gbaradi fún ifòrò-wáni-lènu-wò yí nípa síse àyèwò iwé àlàyé ati fòòmù ifohùnsí dára-dára ki o too di ojò ifòrò-wáni-lènu-wò gan-an.

Èni ti a nífi ọ̀rọ̀ wá l'ènu wò:

Gbogbo aláboyún tí o bá fẹ̀ lee kópa nínú iwadi yii, ki wọn si fi ero wọn han

Ìfihàn:

Olùfòrò-wáni-lènuwo a se àfihàn ara rẹ̀, yoo dẹ̀ tún se àtún-fi-hàn pàtàkì iwadi

Gba fòòmù ifohùnsí

Ìdánimòn:

A gbodò beere àwọn ibeere ti o jẹmòn idánimòn olùkópa gẹgẹbii Orúko (Àròso orúko), Ojò orí, Ìpele Ilé èkó, Isẹ̀ iyàn laayo, Èyà, Èsìn, Owo oşù, iye oyún àti iye ọmọ.

Ibeere Ìdánimòn
È sé fún ìkópa yín nínú iwadi yii, ẹ̀ jòwọ̀ ẹ̀ sọ̀ fún mi nípa ara yín àti ìdílẹ̀ yín
Bawo ni àkókò se nlo si? Sé ara yín le? Se ẹ̀ ti kojú isòro kankan? Njẹ̀ ohun kan wa ti o nda ọkàn yín laamun?
Ibeere Gan-an
Láti igbà tí ẹ̀ ti l'oyun yii, ẹ̀ sọ̀ fun bí èrò ọkan yin se ri, gégébí ẹni ti o nretí nkan ayò? Kinni àwọn ojúse yín àti kinni idí? Ní èrò tiyin, kinni akoko ilóyún ti ti o mun alaafia lówo túmọ̀n sí? Kinni àwọn nkan ti ẹ̀ ro pe o se pataki si yin ni akoko ilóyún yii? Kinni idí? Kinni nkan tí ẹ̀ nse ki eyin àti ọmọ inu yín le wà ní ilera?
È sọ̀ nípa àkókò ilóyún yii fun mi. Se ẹ̀ ti gba abéré àjesára kankan lati igba ti ẹ̀ ti lóyún? Ti ẹ̀ ba ti gba a, kinni idi tí ẹ̀ fi rò pé o se pàtàkì? Ti ẹ̀ ko ba ti gba a, kinni idi tí ẹ̀ ko fi gba a? Taani tabi kinni o se okunfa ipinnu yín láti gba abéré àjesára tabi lati ma gba a? È sọ̀ ìriri awọn mọlébí ati ọre yín nípa abéré àjesára ni akoko ilóyún fún mi. Se ẹ̀ mọ̀n bóyá wọn gba abéré àjesára tabi wọn kò gba a? Ti wọn ba gba a, kinni idi tí ẹ̀ fi rò pé wọn gba a? Ti wọn ko ba gba a, kinni idi tí wọn ko fi gba a?
Se ẹ̀ maa nífi ọ̀rọ̀ jomi-tooro ọ̀rọ̀ pelu ọkọ̀ yín, awọn mọlébí ati ọre yín nípa abéré àjesára? Igbà wo ni ẹ̀ kókó gbó nípa abéré àjesára ni akoko ilóyún? Enu taani ẹ̀ ti gbọ̀? Se lenu awọn dókítà, nọ̀si, agbẹbí tabi àwọn mii ní? È shapejuwe ero yín nípa abéré àjesára ni akoko ilóyún. Kinni idi tí ẹ̀ fi rò pé o se pàtàkì, tabi kò se pàtàkì? Taani ẹ̀ ro wípe ẹ̀ o nii kọ̀ imọ̀nràn re nípa àwọn ipinnu ti ẹ̀ o se ni àkókò ilóyún? Mo fẹ̀ mọ̀n si nípa àrùn èyi (tetanus) àwọn ọmọ ọwọ̀, kinni ohun tí ẹ̀ mọ̀n nípa rẹ̀? Nígbà wo ni ẹ̀ gbó nípa rẹ̀? Njẹ̀ ẹ̀ mọ̀n nípa abéré àjesára ti o lee dena rẹ̀? Se ẹ̀ ti gba abéré àjesára yii? Ti ẹ̀ ba ti gba a, kinni idi tí ẹ̀ fi gba a? Ti ẹ̀ ko ba ti gba a, kinni idi tí ẹ̀ ko fi gba a?

Mo nife sí àti mọ̀n ìrírí yín, ti ẹ̀ ba fẹ́ gba àwọ̀n aláboyún miran ní ìyànjú, kinni yoo jẹ́ imọ̀nràn yín fún won? Ẹ̀ sọ́ fún mi nipa àwọ̀n idanilẹ́kọ̀ àti ìmọ̀nràn ti ẹ̀ ti gbà láti ìgbà tí ẹ̀ ti l'óyún? Lati ibo ni ẹ̀ ti gba àwọ̀n imọ̀nràn naa àti taani o da'yin lẹ́kọ̀?

Ni èrò yín, ipa wo ni àwọ̀n idanilẹ́kọ̀ àti ìmọ̀nràn ti ẹ̀ ti gbà láti ìgbà tí ẹ̀ ti l'óyún ti ni ninu aye yín? Še o fa idaru-dàpọ̀ ni tàbí ẹ̀ nife rẹ̀?

Nínú gbogbo àwọ̀n idanilẹ́kọ̀ àti ìmọ̀nràn ti ẹ̀ ti gbà láti ìgbà tí ẹ̀ ti l'óyún, èwo ni o se pàtàkì si yín jùlọ̀ àti kinni ìdí?

Ẹ̀ še fún idahun yín, še ẹ̀ ni ibeere tabi àfikún?

ÀMÚNYE OLÚDÁHÙN

Orukọ - (Arosọ)

Ọjọ́ orí (Ọjọ́ ìbí tí ẹ̀ se kẹ́yin):

- 18-24
- 25-34
- 35-44
- 45-54

Ìpele Ẹ̀kọ̀ ti o ga jùlọ̀ ti ẹ̀ parí?

- Mi o lọ́ ilé-ìwé rara
- Mo lọ́ ilé-ìwé, şugbọ̀n mi o pari
- Ilé-ìwé Girama
- Ilé ẹ̀kọ̀ gbogbo'hun'še (Polytechnic)/University, şugbọ̀n mi o tii jade
- Mo ti gba oye àkókó
- Mo ti gba oye ẹ̀ẹ̀keji?

Işe şişe

- Mi o ni idanilẹ́kọ̀ kankan
- Mo ti parí ẹ̀kọ̀şe
- Mo şe idanilẹ́kọ̀/igboye

Isẹ̀ wo ni ẹ̀ n se?

- Mi o ni işe kankan lówó
- Onísẹ̀ ọwó
- Mo nşişe oşu

Owó Oşù

- Owo to din ni 30,000.
- 40,000-70,000
- 80,000-110,000
- 120,000 ati jù bẹ̀ẹ̀ lọ

Ọmọ́ melo l'ẹ̀bí?

- Mi o tii bi ọmọ́ Kankan
- Ẹ̀yọkan sí méta
- Mẹ̀rin ati ju bẹ̀ẹ̀ lọ

Iye igba ti ẹ ti l'òyùn

- a. Ọkan sí mèta
- b. Mèta si marun
- c. Marun ati ju bẹẹ lọ

Iye àwọn mọlẹbi yin

- a. Méjì
- b. Mèta si marun
- c. Marun ati ju bẹẹ lọ

Èyà wo niyín?

- a. Yorùbá
- b. Igbo
- c. Hausa
- d. Àwọn ẹyà miran

Ede wo ni ẹ nsọ

- a. Ede abínibí nìkan
- b. Ede abínibí àti òyìnbó ti ko yanranti
- c. Ede abínibí àti ede òyìnbó
- d. Ede abínibí, ede òyìnbó ati èdè okeere miran

Ẹlèsin wo niyín?

- a. Mùsùlùmí
- b. Ẹsìn Ìgbàgbó
- c. Elésin àbáláyé