Planning families in Zaria: an investigation into the information-behaviours and favoured advice-givers of parents in northern Nigeria.

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Planning Families in Zaria: An Investigation into the Information-Behaviours and Favoured Advice-givers of Parents in Northern Nigeria.

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Abstract

The availability of precise, impartial and credible information is crucial to building knowledge and empowering citizens to make rational individual and collective decisions. For this reason, the usefulness of information for satisfying identified needs is strongly dependent on the appropriateness of its presentation (language, format, and consideration of cultural and religious sensitivities) and its accessibility (cost of acquiring, mode of dissemination, location of distribution).

Nigeria is a country characterised by wide-scale poverty, unemployment, crime, high maternal and infant mortality rates, and high fertility rates - especially in the North-West. Despite the concerted efforts of government agencies, non-government organisations (NGOs), charities and international organisations to reduce fertility and promote family planning (FP), utilisation remains low.

Culture, religion, fear of medical side-effects and the dominant decision-making influence of men have repeatedly been identified by researchers as barriers to the adoption of FP parents and prospective parents in the region. Information-seeking behaviour (ISB) has consistently been recognised as pivotal to developing effective initiatives for promoting sustainable and healthy populations, yet take-up of FP remains low in developing countries, including Nigeria, especially in rural communities.

This thesis uses the Information Seeking and Communication Model (ISCM) to analyse the ISB of men and women in the rural Local Government Area of Zaria, northern Nigeria. Thematic analysis of 12 semi-structured interviews revealed evident disparities in the behaviours and choices of favoured advice-givers. While married couples' ISB and major FP sources were more informal than formal – privileging anecdote, received wisdom and personal experience over 'official' advice from government or health professionals - men favoured the authority of religious leaders or community-based sources (e.g. village heads), while women preferred to rely on informal advice sources acquired through. However, single men and women's ISB and information sources were majorly semi-formal, in avoidance of being described as deviants in the society. Distrust for government and practical barriers to accessing information (e.g. distance from health centres or problems with understanding the formats of pamphlets and translating literature written in non-native languages) was revealed to be the significant barriers to the uptake of more formal FP advice.

The study ends by recommending a series of possible improvements to the FP communication process, by making information more accessible to the critical sub-groups identified while also being sensitive to cultural and religious values to better engage with 'hard to reach' individuals and communities.

Keywords: Information behaviour, information use, information sources, favoured advice-givers, family planning, Zaria, Northern-West, Nigeria.

Declaration

I declare that this thesis:

"Planning Families in Zaria: An Investigation into the Information-Behaviours and Favoured Advice-givers of Parents in Northern Nigeria."

To the best of my knowledge is my work and any material construed as the work of others is fully cited and referenced with appropriate acknowledgements.

Malatl Mary-Anne Hellandendu
February 2019.

Dedication

I dedicate this thesis to the Almighty God who is the giver of all things and who never deserted me amid confusion and hopelessness, and I return all the Glory to God because 'you deserve it'.

To me beloved Husband Olakunle John Abatan, who believes in me more than I do in myself, whose will to fight, assistance, encouragement and financial support kept me strong through trying times, words cannot express my profound gratitude for every sacrifice you have made and your and kind heart which gave me a reason to fight, this thesis is for you. Lastly, to my Son Oluwasijibomi Abatan, for giving me a reason to learn time management and analytical skills. I love you both dearly.

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Glossary of terms

FP- Family Planning

IB- Information Behaviour

ISB- Information Seeking Behaviour

NDHS- Nigerian Demographic and Health Survey

SPARC- State Partnership for Accountability, Responsiveness and Capability

WHO- World Health Organisation

Table of Contents

List of Figures

1 CHAPTER ONE

Background of Study

The rapid growth between 2006 – 2018[1] of the Nigerian population, to an estimated 190,886,311 million (World Bank 2017), has led to an increased focus on promoting family planning (FP) by national and international non-government organisations (NGOs) and charities, and in government campaigns and interventions. The government of Nigeria since 2012 has worked with stakeholders to address socio-cultural norms such as a preference for large families, religious beliefs and the absence of women's autonomy in reproductive and sexual issues (Family Planning [FP 2020] 2018). Despite this, the adoption of FP remains slow and low, especially in the northern region of Nigeria (Nigerian Demographic and Health Survey [NDHS] 2013)[2].

As a developing country, Nigeria is characterised as having a high level of fertility (5.5 births per woman), maternal mortality (576 per 100,000), infant mortality (69 per 1000), unemployment (14.2%-18.8% between 2012 -2017), poverty, hunger and crime (National Bureau of Statistics 2018). Also, Graff and Bremner (2014) affirm that these features are particularly associated with rural areas, attributing them to the low use of modern contraceptives, which has negative implications for the health and development of the country. There are also evident regional variations in these trends, with disproportionately high prominence in Northern Nigeria (NDHS 2013).

Zaria is a Local Government Area in the North West-Region of Nigeria. The dominant language spoken in this area is Hausa, with a high concentration of higher learning institutions. This adds to the diversity of its population and not uncommon to find a fair representation of the Yoruba and Igbo tribes[3] who are referred to as groups constituting the three major ethnic groups in Nigeria. Islam is the predominant religion in Zaria, and it is a patriarchal society with men

[1] After the 2006 Census, the National Populations commission reported a population of 140 million and in 2018, an estimated 182 million, which signifies a 30% increase in over a decade.
[2] The last census conducted in Nigeria was in 2006, and the NDHS information is one of the most accurate data accessed in Nigeria at the moment. However, the National Population Commissions update the site with estimated population figures on yearly basis.
[3] Hausa, Igbo and Yoruba are the major languages spoken in Nigeria.

occupying important leadership positions. The area is also characterised with high population and fertility rate (NDHS 2013; Aliyu et al. 2010; Ejembi 2004). For example, a study conducted in Zaria by Aliyu et al. (2010) revealed that only 12.5 per cent of the women in Zaria were using any method of modern contraceptives thirty years after its introduction, which explains its increasing population.

Developing countries are often characterised by their rurally based majorities (Islam and Ahmed 2011; Dutta 2009; Shaik and Hatcher 2005), and the widespread occurrence of poverty, low literacy levels, inadequate services/social amenities and ignorance (Islam and Ahmed 2011; Nwagwu and Ajama 2011; Saleh and Lasisi 2009; Momodu 2002). While these patterns are broadly consistent with those in Nigeria, the country has seen a high percentage of rural-urban migration (45% - 55 %) in recent years (NDHS 2013), suggesting that it is becoming more urbanised (Speizer et al. 2014; NDHS 2013). However, World Bank (2018) reports revealed that about 50 per cent of Nigeria's urban population lives in urban slums which share similar characteristics with the most populated rural areas (Ezeh et al. 2010). Nonetheless, as the majority of the Nigerian population inhabit rural areas, their information needs are shaped by environmental, religious, cultural and socio-economic surroundings that remain distinct, in many respects, from those of urban dwellers – even if their economic circumstances are similar (Duze and Mohammed 2006; Peter et al. 2008).

Family planning defined as the spacing of childbirths to achieve the desired family size (World Health Organization [WHO] 2017), has been argued to be pivotal in regulating population growth by reducing fertility levels through the use of modern contraceptives which is believed to improve health, reduce poverty and stimulate national growth and development (Graff and Bremner 2014).

In an attempt to increase the uptake of FP, previous studies variously focused on the problems associated with accessing services and identifying strategies to solve this problem (Fakeye and Babaniyi 1989; Feyisetan and Ainsworth 1996; Odimegwu 1999), which they believed would increase the adoption of FP. However, findings revealed that other factors, such as lack of education (Duze and Mohammed 2006) the time and costs associated with accessing FP services (Peter et al. 2008), are major causes of low adoption.

More recently, studies have focused on the promotion of FP by identifying the barriers to it as socio-economic (poverty, illiteracy, urban-rural residents and income), culture, religion, education rural-urban residents. Studies have also found that higher FP adoption rates tend to occur among wealthy, educated, urban and higher income earners compared to their poorer, less educated, rural and lower-earning urban counterparts (Ajaero 2016; Mbizvo and Phillips 2014; Ojua et al. 2014; Olayinka *et al*. 2014; Kana 2015; Moronkola et al. 2006; Reed and Mberu 2014; Babalola and Fatusi 2009).
Other studies have focused on the socio-cultural factors determining the adoption of FP in Nigeria, reporting religion (Reed and Mberu 2015) the stigmatization of infertility (Dimka and Dein 2013), men's autonomy (Okigbo 2015), early marriage (Pasha et al. 2015; Ojua et al. 2014), and the fear of physical and/or mental side-effects (Adeyanju et al. 2017) as factors motivating or, more importantly, inhibiting the adoption of FP.

However, while some studies recommend potential improvements to FP promotion strategies, limited attention has so far been given in the literature to the question of identifying target audiences' preferred information formats/mediums and practical ways of overcoming the more specific barriers that might be preventing or discouraging many parents (and prospective parents) from engaging with existing FP initiatives (Shaik and Hatcher 2004).

Islam and Ahmed (2015) affirm information as a significant resource which contributes to development. They go ahead to emphasise that a knowledgeable community is a product of relevant information acquired. Thus, emphasising that a community's development is intertwined with the information, they can access and utilise. Also, Emele (2018) emphasised the presentation of information in culturally and religiously appropriate formats and communicating via accessible sources to promote information utilisation among rural men. Furthermore, Buchanan and Gibb (1998) assert that for a successful implementation of information strategy, a need exists to map information processes and flows by examining the interactions that take place amongst people within a social context and analysing their various communication processes.

However, there has been limited studies in developing countries investigating the information needs and information behaviour (IB) of rural dwellers specifically

(Dutta 2009), with most that have been carried out focusing on professionals (engineers, nurses and students in higher institutions), town and/or city-dwellers (Fasola and Olabode 2013). Also, the handful of ISB studies focusing on health-related issues have mostly concerned cancer (Dareng et al. 2016; Emele 2018), care-seeking (Bedford and Sharkey 2014; Enwuru 2002) and menopause (Dienye and Ndukwu 2013). A few, if any, focusing on reproductive health.

However, while a few studies in information behaviour in rural areas have been identified, they focus on the identification of general information needs of rural communities within specific regions or individual genders (Saleh and Lasisi; Momodu 2002). For example, Momodu's (2002) study focused on identifying the information needs and sources of rural dwellers in the south-south region of Nigeria, while Saleh and Lasisi (2011) focused on the information needs and sources of women in the north-eastern region of Nigeria. However, the influence of these needs on the type of source (s) utilised, and its overall impact on rural dwellers information behaviour was not explored. Also, Bakar (2011), points out existing discrepancies in rural women's decision to access various information sources to meet different needs in Malaysia, hence a need to investigate the FP information source preference of men and women in Zaria.

By investigating the low adoption of FP from the perspective of the information behaviour (IB) of the people presents an approach which may provide a better understanding of the trend and pattern of identifying information need, information-gathering, medium selection and information utilisation by the people in Zaria community. The identification of these patterns can be used to increase FP adoption.

Hence this study aimed to understand the family planning information behaviour of rural men and women by identifying the influence of culture, religion, gender and other factors in determining their preference, range and nature of information sources used.

To achieve the set aim, the principal methodological framework was Robson's (2013) Information Seeking and Communication Model (ISCM), which recognises environmental (work-related, location, culture, finances) and personal factors (self-perception, self-efficacy, cognitive dissonance, perception of risk) as elements which inform the needs, wants, goals and perceptions of an information user or provider (p.184). These factors also may motivate or inhibit a user from seeking and a provider from communicating information. Thus to understand the family planning information behaviour of men and women in Zaria, the influence of environmental and personal factors in motivating or inhibiting their use of FP information and source preference was investigated.

In addition to the ISCM, close attention was played to Wilson's model of information behaviour (1997), which emphasises the importance of the *identification* of needs as motivations for seeking information. Wilson identifies various types of information seeking; passive attention (information acquired without intentional search); passive search (finding information coincidentally while searching for other information); active search (purposely searching for the acquired information) and ongoing search (searching to update existing knowledge) – arguing that personal, psychological and source characteristics motivate or inhibit the various forms of information seeking. Therefore, it was necessary first to identify the existing form of information seeking among men and women in Zaria, for deeper insight into their current patterns of FP information behaviour in terms of -information search, use, avoidance and source preference. In addition, close consideration was given to the influence of environmental and personal factors (Robson and Robinson 2013) on the perceived credibility of FP information sources, drawing on Chatman's (1996) concept of deception, secrecy, and the existence of the twin worlds of "insider" (conformist to societal norms and mores) and "outsider" (non-conformist) – the latter being seen as a likely impediment to information searching, sharing and acquisition of relevant knowledge (p.194).

1.1 Defining Information Behaviour and Information Seeking Behaviour

Information-seeking behaviour (ISB) is a process of purposeful engagement in information search by humans to change their state of knowledge (Marchionini 1995). Similarly, Wilson (1999) defines ISB as the purposive search of information to satisfy a need. Kuhlthau (1991) defines ISB as a practical effort to interpret information to extend one's knowledge on specific issues. The various definitions of ISB reveal that the discovery of a gap in knowledge prompts information search, which leads to information seeking.

Information behaviour on the other hand, according to Wilson (2000), can be defined as "the totality of human behaviour about sources and channels of information seeking and information use" (p.49). Similarly, Pettigrew et al. (2001) define IB as the study of "how people seek, give, and use information in a different context, including the workplace and everyday living" (p.44). Bates (2010) also describes information behaviour as the various way's humans interact with information, which includes, searching and utilisation. On the other hand, Wilson (2000), acknowledges that there are fewer models of information behaviour (IB), and defines IB as not only an information search process but concerned with the general behaviours which include; information seeking, search and use which are sub-categories of information behaviour (p.49).

Considering that FP literature does not point towards a purposeful FP information search by men and women in northern Nigeria, instead, identifies the existence of information to promote FP and the barriers to utilising such information. Hence, it was significant to understand the low use of FP information by men and women in Zaria Local Government Area (LGA) Nigeria, by investigating their FP information behaviour which involves a totality of their active or passive information search, source selection and preferences (Pettigrew et al. 2001) and its overall impact on their use of FP information (Bates 2010).

1.2 Research Aim

This research examines the family planning information behaviour of men and women in Zaria, northern Nigeria, by analysing the range and nature of information sources and advice-givers available to them and the cultural, religious, gender and other dynamics that affect how these sources are accessed and prioritised.

1.2 Research Objectives

1. To determine the range and nature of family planning advice-givers and other information sources available to parents and prospective parents in Zaria province and the relative accessibility of each.
2. To identify which information sources and advice-givers are most (and least) trusted and analyse any discrepancies between those favoured by women and men
3. To determine the first point(s) of contact favoured by adults of either or both genders when considering the possibility of starting a family.
4. To consider any relationship between gendered information-seeking behaviours around family planning and the health ISB(s) of women and men generally.
5. To identify and analyse the relative impact of cultural, religious, economic and other factors on the ISB(s) and favoured advice-givers and information sources of women and men – including any influence(s) of one gender on the other.

1.3 The rationale for the study

Modelling decision-making requires an in-depth understanding of the Information-Behaviour of the target audience. This is to ensure that contextually appropriate information sources, formats, language(s) and dissemination processes are selected to promote the use-value and fitness for products and services (Bertrand 1995; Momodu 2002; Dutta 2009). Achieving this requires an understanding of the IB of the target audience, as well as any competing, or conflicting, information sources to which they are subjected to and any barriers they might encounter in accessing and engaging with the messages promoted. About developing countries, such behaviour has so far been under-studied, particularly about the health issues (Dutta 2009; Lasisi and Saleh 2010), which is the focus of this research.

Despite the variety of studies in family planning (FP) and reproductive health in Nigeria, few studies have focused on the information behaviour of Nigerians and occasionally when it is included in studies, it is discussed as a secondary component of health seeking-behaviour examples of such studies include; (Nwagu

2007; Okeke and Okeibunor 2010; Akinfaderin et al. 2012). According to Mansuri and Rao (2004), community-based interventions have become a popular form of assistance for developing countries to enhance development. However, they argue that most initiatives leave supposed project benefits inaccessible to the people, as projects are managed by elites, making economic inequality evident in the targeting and project quality.

Hence this study seeks to understand the IB of men and women in Zaria to identify sources, channels, products and services that correlate with their information seeking process and understand their reasons for selecting them, to better inform the targeting of this community with FP messages.

Health information, among many others, has also been revealed to be an essential need amongst rural dwellers. For instance, Lasisi and Saleh 2010 revealed health to be one of the major information needs of rural women in North-East, Nigeria. Similarly, Momodu 2002, in her studies aimed at identifying the information needs and ISB of rural dwellers identified health information amongst the major information needs. Momodu (2002) states that the characteristics (age, sex, socio-economic status, occupation) of rural residents and their IB differs according to geographical location but acknowledge a need to understand the IB of communities according to these discrepancies in order to make informed decisions about appropriate information sources and language to use in communicating information.

Decision-making concerning what information to produce and how to communicate such information requires data from both women and men that can answer questions about couple communication, deliberations and the influence of men on women's fertility, contraceptive choices and outcome (Green and Biddlecom 2009) considering that both sexes are involved in reproduction. But major studies in FP in Nigeria have generally been gender selective, focusing on men only (Okigbo et al.2015; Orji et al. 2007; Oyediran et al. 2002; Oni and McCarthy 1991) or Women (Bajoga et al. 2017; Moronkola et al.2006; Okenwa et al.2011; Sedgh 2006).

Greene and Biddlecom (2000) argue that, although the issue of reproduction concerns both men and women, men are usually excluded from FP programmes. It is in this regard that this study views reproductive health as a holistic process, involving both men and women. Also, considering the patriarchal nature (Men are the primary decision makers especially in issues of reproductive health) of Northern Nigeria, it is important to include both sexes in this study to find out the similarities and discrepancies in their IB to enable the better targeting of FP information through appropriate sources and channels. This will give an insight into the development of effective communication strategies to meet their information needs as individuals and as couples as a Holistic component by investigating both sexes and not as a single entity. Hence the importance of incorporating both men and women to have an in-depth understanding of their ISB and decisions to utilise separate information sources.

1.4 Research Conceptual Framework

According to Wilson's (1996) model of information behaviour, a need prompts information seeking, and factors which may motivate or inhibit information seeking are grouped into "activating mechanisms" and "intervening variables" (Wilson 1999, p.257). While the former echoes elements of stress theory, risk and reward and social learning theory, the latter refers to personal and psychological factors. These factors determine the extent to which information is searched or ignored and the model provides possible explanations to the prioritisation of specific information needs over others.

The various types of information seeking identified by Wilson (1997) include 'passive attention' – where unintentional information search leads to the acquisition of relevant information. 'Passive search'- when one finds information in the process of searching for other information. 'Active search'- purposeful and active information search to satisfy a need and 'ongoing search'- further search to update existing knowledge (p.562).

Although this model was seen to be relevant in exploring the factors influencing rural men and women's FP information behaviour and information seeking (passive and active), it has been criticised for portraying IB as a logical, process contrary to the iterative and non-sequential activities involved in IB (Godbold 2006).

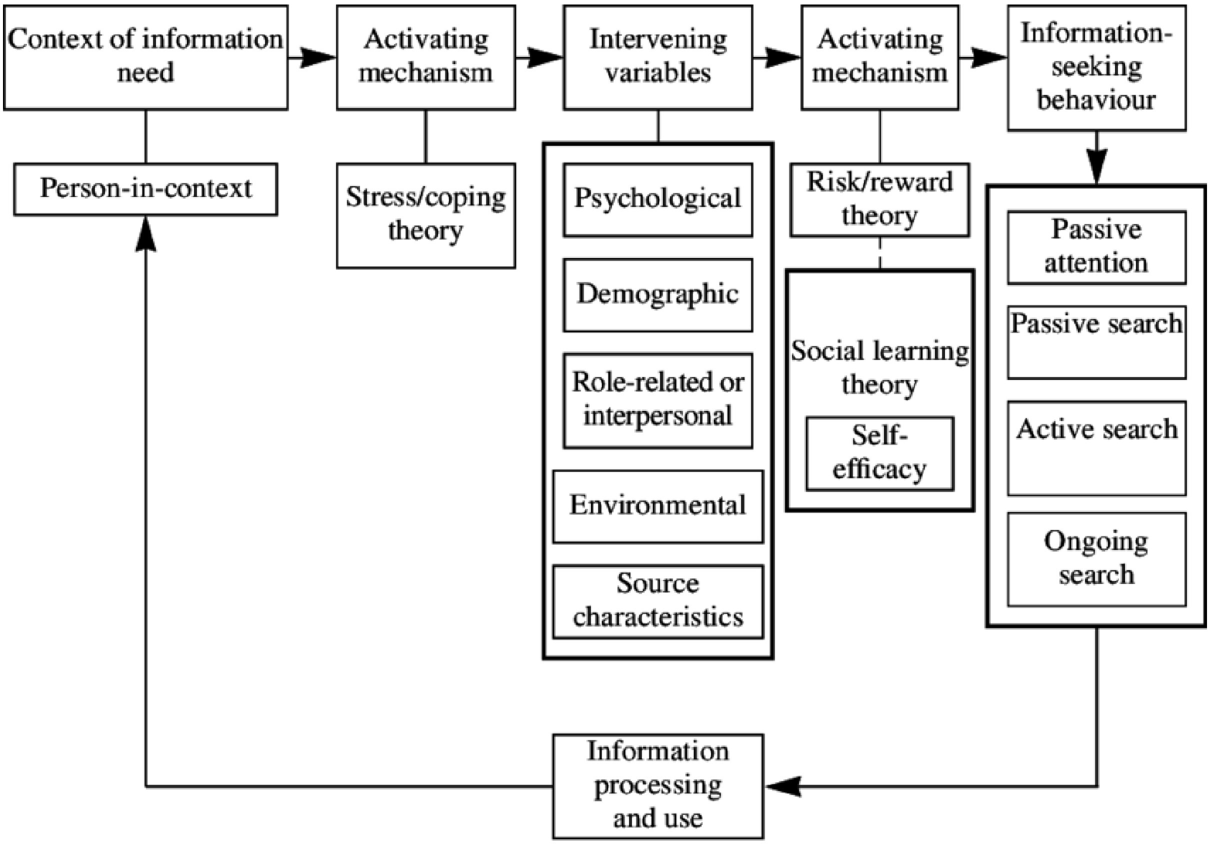

Figure 0:1.1 -Wilson 1996 Model [Adapted from Wilson (1999), p.257].

This criticism is also evident in Wilson (1997), who describes the model as a simplified process:

“The diagram has been simplified by showing the intervening variables at only one point whereas at least some of the variables may intervene between context and activating mechanisms, between activating mechanisms and information-seeking behaviour and between information-seeking behaviour and information processing and use” (p. 569).

In contrast to Wilson’s model, FP practices in Northern Nigeria have not been a straightforward process (Green and Biddlecom 2000), as it has been characterised by relatively low rates of adoption – despite the best efforts of various FP campaigns. Thus the Wilson model on its own (as outlined in Figure 1) has clear limitations as a tool for investigating the complexity of the FP information behaviour of Zaria men and women.

Again, the theory of information poverty propounded by Chatman (1996) focuses on understanding factors limiting information-seeking and sharing among people living in poverty – and how this contributes to *information* poverty, specifically in the context of janitors, single mothers and older people.

According to Chatman (1996), the existence of two worlds ('insider' and 'outsider'), among impoverished groups serves as barriers to information seeking and sharing. "Insiders" are perceived as individuals who share standard cultural, social and religious practices, conforming to societal norms, while "outsiders" are perceived as deviants to existing societal norms and practices (p.194). The existing belief that only insiders understand the people's lived experiences serves as a hindrance to outsiders penetrating communities with new ideas and information which may be beneficial to them. According to Chatman, this perception becomes evident in the concepts of; Risk-taking- involves weighing the relevance of the information to decide whether or not to share. Secrecy- a deliberate attempt to conceal information from the outsider, to prevent unwanted exposure. Deception- a deliberate attempt to misinform the listener and Situational relevance- anything valued by the user such as usefulness, applicability to interest and growth of new knowledge, which leads to the utilisation of information.

The model (while relevant) had limitations as an overarching conceptual framework as it focuses on barriers to information *sharing* which is only but a part of the overall aim of this study to investigate the information behaviour of Zaria rural men and women.

The Information Seeking and Communication Model

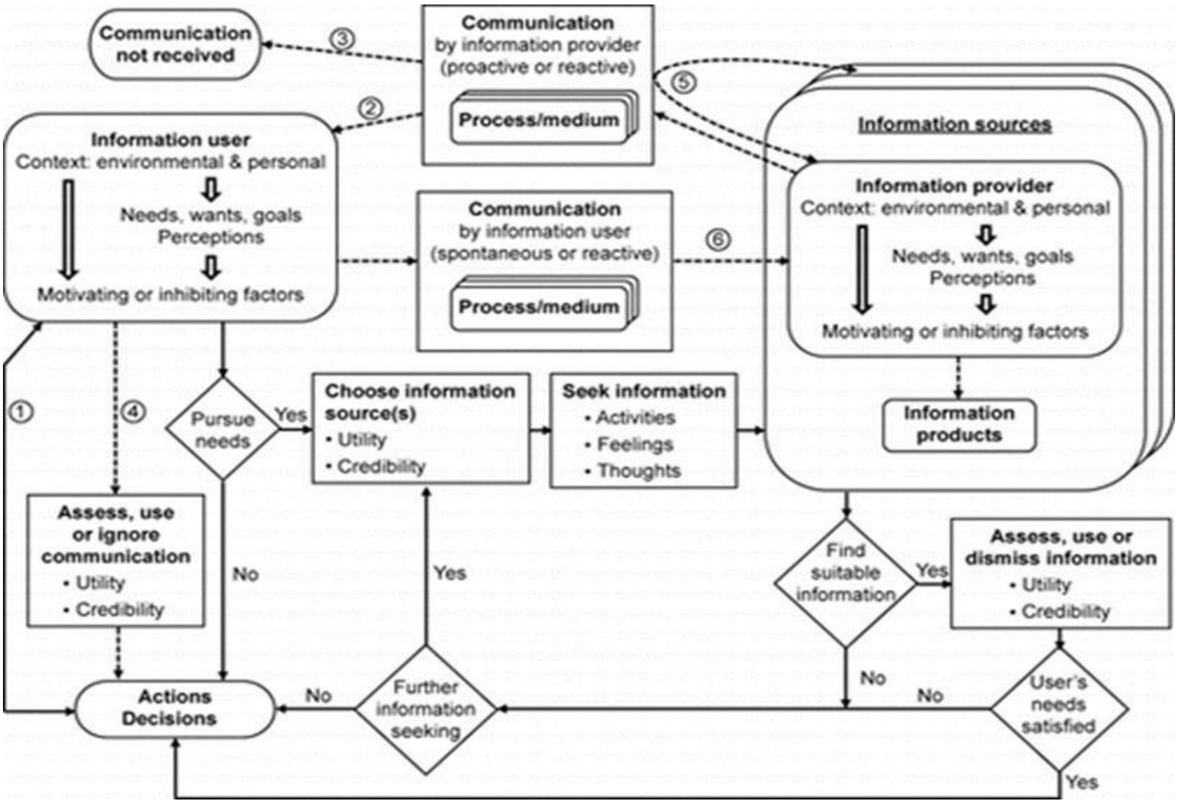

Figure 1.0:2: The ISCM Model [Adapted from Robson (2013 p.68)].

Research into communication dates to the 1920s (Laswell 1949), while research into information behaviour dates to the early 1940s (Sherrington 1965, cited in Robson 2013).

Many theories and models in information have been developed and continue to be developed (Fisher et al. 2005; Case 2007). The criticism of many scholars, especially researchers in Library and Information Science (LIS), has been that the scope of theories and models developed in both fields have been minimal, with most models emerging centred on building on existing arguments with little or no new contributions (Case 2007; Vakkari 2008; MCkechnie et al. 2008; Wilson 1999).

The LIS models focus on "the information seeker and information-seeking behaviour" (Wilson 1997; Case 2012) while mass communication models focus mainly on the "communicator and the effectiveness of communication" by effective communication, the focus is on the effect of messages on the audience and their response (Robson 2013, p2).

The Information Seeking and Communication Model (ISCM) propounded by Robson (2013), is a blended model developed by examining models from the fields of LIS and Communication. The model is, therefore, a blend of others drawn from communication, information behaviour and information-seeking behaviour, just as Wilson's (1997) argues that "the general models of information behaviour should guide analysis of ISB" (p. 552), because they encompass the "totality" of information, including communication (media and other sources), and there is a relationship between information and communication (Wilson 1997; Robson 2013; Robson and Robinson 2015).

The ISCM focuses on information *users*: the activities they get involved with (information searches and use); and the activities in which they engage (including ISB) to produce and communicate information. The continuous arrows in the diagram in Figure 2 show information seeking and related activities, while the dashed arrows show communication and related activities.

However, the IB of both the user and provider of information are influenced and shaped by environmental context (culture, religion and place of work) and personal context (knowledge, experience, and psychological). Thus, their needs wants, goals and perceptions are informed by these contextual factors, which may motivate or inhibit them from searching for information or communicating it. This suggests that context; environmental and personal factors shape the IB of providers and users of information.

The ISCM demonstrates that the role of information user and provider are interchangeable, suggesting that depending on the situation, a provider of information could also be an information user at some point and vice versa (Robson and Robinson 2015). Hence, making the model relevant in investigating the common practice of information sharing amongst members in rural communities (Emele 2018) which allows for role interplay and not necessarily an investigation of the IB of professional bodies acting as information providers (communicating) to rural communities (information users). Contrary to other information models where the information user plays a fixed role as a receiver/consumer of information (Ellis's model 1989; Kulthau's Information Search Process 1991; Wilson's model of IB 1996; and Johnson's 1997 Comprehensive model of Information Seeking), the ISCM allows for flexible role interplay, emphasising the interactive nature of IB, which can lead to information sharing.

The model further demonstrates that communication is a two-way process and emphasises the importance of this type of communication in understanding IB- the information provider may communicate with the user of information; information providers may also communicate with each other. Two-way communication, which is interactive and provides feedback opportunities – has been argued to be effective in bringing about positive behavioural change in psychiatric patients (Priebe et al. 2011) and improve knowledge, skills attitude and health care outcomes in health interventions (Hammarberg et al. 2003). Furthermore, Bahri (2010) argues that feedback in two-way communication is significant in risk assessment and minimisation, crucial for addressing unfavourable patterns of medicine use, to develop behaviour change models (Hammarberg et al. 2003). The aim of this research centres around identifying motivators and inhibitors to the use of FP information sources among rural men and women in Zaria, to understand the low FP practice in the area. Thus considering the re-occurring theme of rural dwellers preference for informal information sources (Islam and Ahmed 2012; Saleh and Lasisi 2011; Momodu 2002), the two -way communication was essential to investigate the role of information sharing in motivating or inhibiting the use of FP information sources amongst rural men and women in Zaria.

From the user or information consumer's perspective, utility (perceived usefulness and relevance) and credibility (reliability, accuracy, trustworthiness, authority, completeness, lack of bias) are essential attributes in a source which influence's source selection. However, both the user and provider depend on context as a motivating or inhibiting factor to communicate or use the information and information sources. Hence the theme of source credibility was explored to identify the information source characteristics sought by rural men and women in Zaria, which determines their use or avoidance of information.

The central thesis of the ISCM is that a user's needs, wants, goals, perceptions and information behaviour is influenced by context which determines the totality of an individual's actions and decision-making.

1.5 Originality and Significance of the Study

Several studies conducted in the area of FP have identified problems associated with FP accessibility and its adoption (Speizer et al. 2015), but there is yet a study to identify the preferred sources of information of the end-users by investigating their information behaviour.

The current research is a qualitative study which used semi-structured in-depth interviews (telephone interviews), in contrast with major quantitative studies in FP which use questionnaires, structured interviews and data evaluation forms for data collection. Thematic analysis (identifies recurring patterns in text to understand a phenomenon) was adopted in this study to explore 'Why' (to understand the prioritisation of specific information sources over others) and "How" (the process of information seeking of the target audience) this relationship exists contrary to the salient use of, logistic regression, Chi-square or correlation. The use of a different method of research and analysis was adopted to understand the influence of environmental and personal factors in forming the judgement of rural men and women in terms of; information relevance and credibility, and the impact of these perceptions in their decision to use or ignore specific FP information sources.

This study was therefore unique in aiming to understand the low utilisation of FP in Northern Nigeria by investigating the IB and preferred advice-givers among parents – and any discrepancies between men and women - in the Zaria local government area.

In terms of its potential impact, the study aims to recommend ways to improve FP information communication practice(s) to reflect the IB of both rural men and women, to promote increased trust, engagement and larger-scale take-up by target consumers. It is also applicable to context with similar characteristics and emphasises the importance of investigating the IB of the end users as the first point to ensuring success in public health initiatives.

Empirically, this study contributes to the literature on gender-based information behaviours in rural areas in Nigeria.

1.6 Research Questions

1. What is the range of advice-givers available to parents and prospective parents in Zaria and how accessible are they?
2. What are the impacts of the perceived credibility of these individual information sources, and how do these affect source preferences among men and women?
3. When deciding to start a family in Zaria, what is the most preferred source of advice by men or women or both?
4. What, if any, is the relationship between the health information-seeking and more general information-seeking behaviour(s) of Zarian men and women?
5. What are the relative influences of cultural practices, religion, economic and other factors on the ISB(s) and favoured advice-givers/information sources of women and men – including any influence(s) of one gender on the other?

2 CHAPTER TWO

Literature Review

2.1 Policy on Family Planning in Nigeria

In mid-2016, Nigeria had a population of 186.5million people (Population Reference Bureau [PRB] 2016). The country is characterised by high maternal mortality (560-1000), high infant mortality (69-1000) and a total fertility rate at 5.5% (PRB, 2016). Northern Nigeria makes for 60 of the country's overall population, with states in North West Zone (Kaduna, Jigawa, Katsina, Zamfara, Sokoto, Kebbi and Kano) making for 40% (PRB, 2016). According to the World Health Organization (WHO, 2017).

In 1988, a National Policy on Population for development and the National Health Policy aimed at improving the health of Nigerians was ratified by the country's federal government (United States Agency for International Development (USAID) 2013). This was as a result of the adverse effect of population growth on national development, evident in increased gender inequality, HIV/AIDS, and poverty (National Populations Commission [NPC] 2015), thus demanding a review of the previous policies, which brought about the National Policy for Sustainable Development and the Revised National Health Policy. Both policies through a system of active referral aimed to provide access to primary, secondary and tertiary health care services. The policy recognised the relationship between socio-economic development and environmental problems and their impact on population growth. Hence there was a need to improve the living standard of Nigerians by reducing population growth, fertility rate, encouraging child spacing, and reduce juvenile and maternal mortality by encouraging the use of modern contraception. However, in recent times, the country is still characterised by rapid population increase and the low use of contraceptives, especially in the Northern region.

In a review on maternal and child health interventions in Nigeria from 1990-2014, Kana et al. (2015) attributed the enduring problems with infant and maternal mortality to poor planning and the short duration of reproductive health initiatives. They further argue that major actors do not embark on long-term programmes, which are more likely to bring about sustainable practices. Similarly, Walt and Gilson 1994 recognise that developing countries have stronger societies and weak politics, but community participation is ignored in development initiatives making such projects unsuccessful, similar to Burnell's report on politics in developing countries (2014). This suggests that for a decline in fertility rate, a need exists to increase the use of FP information, however, to achieve this the target audiences, information sources and format preferences need to be examined to improve the policy on FP in Nigeria.

2.2 Media

There has been an increase in the awareness creation and knowledge on the use of family planning by the media, despite all these, fertility decline, and adoption of family planning remains low (NDHS 2013; Ajaero 2016).

Studies have shown a positive relationship between exposure to mass media and engagement with health campaigns, leading to an attitudinal change in the target audience (Ajaero, 2015; Adekunle et al. 2004). A study in six major cities representing Abuja, Ibadan, Benin city, Ilorin, Kaduna and Zaria established that sexual experiences and use of modern FP methods were highly dependent on information gained through the media (Bajoga et al. 2015). This echoes the findings of Okigbo et al. (2015), who demonstrated that men exposed to mass media were more likely to permit their wives to use a modern method of family planning, Aliyu et al. (2010) also found the media to be the most influential source of FP in Zaria.

For sustainable change to emanate from public health campaigns, programmes need to be integrated into, and adapted to, the dominant/prevailing information-behaviours within cultural contexts.

In the Nigerian context, radio is perceived as an effective medium for health communication (Ajaero 2016; Emele 2018). In assessing the role of the media as a channel for disseminating health information in Nigeria, Brieger (1990) found that men listened to the radio more than women, and people with limited literacy favoured it over newspapers and other platforms disproportionately compared to those with higher-level reading skills. Two-thirds of the population had a clear recall of health messages they had heard on radio or television and could remember the main message. However, for those who did not listen to the radio, the cost of the radio and batteries was shown to be the significant problem, similar to findings in Nigeria by Ajaero (2015) and Adekunle et al. (2004). This study, therefore, set out to assess the validity of these findings in contemporary rural Zaria, and identify the peoples preferred information sources.

2.3 Primary Health Facilities

According to Feyisetan and Ainsworth (1996), Primary Health Care Services (PHC) constitute a significant source of FP information and services. However, for many people, the cost of transportation to the nearest health facility, and the cost of accessing services may regulate an individual's access to this facility. However, recent data shows that access to family planning services and products is free or at low cost in Nigeria (NDHS 2013) and developing countries (Sedgh et al. 2006). Contrary to this development, which is expected to improve access to FP, Shaik and Hatcher (2004) like Feyisetan and Ainsworth (1996) argue that the cost of transportation to the nearest PHC remains a barrier to rural people's access to Health facilities. Thus, a need to investigate the relevance of health facilities in providing FP information considering the accessibility and availability of products and services in subsequent years/recent times in Nigeria hence one of the objectives of this study.

2.4 Information Needs of Rural Dwellers

Islam and Ahmed (2012) affirm that rural dwellers, regardless of their country and region, share similar information needs depending on socio-economic conditions – placing these in hierarchical order to cut across agriculture, health, political information, education, economy, community development and other areas (Islam and Ahmed 2012; Saleh and Lasisi 2011; Momodu 2002). Despite the similarities in the needs of rural dwellers, they argue that satisfying information needs are location and content specific.

Also, the information needs of men and women differ, while men are more interested in issues of politics and agriculture (Islam and Ahmed 2011), women have been revealed to develop more interest about health information for the wellbeing of themselves and their children (Manierre 2015; Nwagwu and Ajama 2011: Urquhart and Urquhart 2010).

Bakar (2011) argues that it is not enough to think about strategies to enhance the quality of life for rural dwellers: instead, it is essential to involve them in decisions about their wellbeing and develop information and services that adapt to their prevailing IB. Their research also identifies a need for further investigation into the specific areas of information needs and information- behaviour, to narrow the gaps in information poverty by creating location and content specific information relevant to the needs of rural communities.

2.5 Patterns of Health Information-Seeking Behaviour among Men and Women in Rural Nigeria

Health seeking behaviour is any action taken by an individual to find a solution to a health challenge identified (Ojua et al. 2011).

According to Shaik and Hatcher (2004 p. 50), men’s autonomy, cultural beliefs, socio-economic, physical and financial accessibility to health facilities, combined with the relatively lower literacy levels among women and large family sizes, influence the differential in health-seeking behaviours of men and women in developing countries. Similarly, Omotoso (2010) has demonstrated the severity of the ailment, cost of treatment as well as religious orientation as factors determining the health seeking behaviour of rural dwellers.

In Nigeria, Ojua et al. (2014) described the effort of rural men and women in finding a solution to their health problems as being governed by their cultural and religious practices. This is because the prevention of severity of illnesses is perceived to be associated with moral and religious practices rather than to health practices, similar to findings in Ghana (Prilutski 2010). As such, solutions to health problems believed to be punishment for wrongdoing are often religiously and culturally sought through traditional medicine healers and faith-based spiritual healers (Christian and Muslim Clerics).

Okeke and Okeibunor (2010) revealed that Nigerian rural dwellers used traditional remedies to treat diseases, and the medical facilities were more often than not the last alternative considered. In their study aimed at identifying the rural-urban differentials in health-seeking for malaria treatment, it was revealed that traditional remedies and patent medicine stores within the community were the first point of seeking health advice and treatment, emphasising that visit to a modern facility was the last alternative determined by the persistence of the ailment.

Rural men purposefully seek health information using their everyday information searching activities, which involves authoritative and trusted sources or random encounter with information in the course of formal rural meetings and interaction friends or family (Fisher et al. 2005). For example, men indicated that they were able to prescribe medication for themselves based on their interaction with information sources in the past. Hence men seek health information when they are ill, and their friends and family remain their information sources, suggesting they are reactive to health information seeking. (Oleribe and Alasia 2006).

However, Peter et al. (2008) revealed that the practice of delaying visits to a health facility in developing countries and rural areas is associated with poverty. He argues that "*poverty leads to ill health and ill health maintains poverty*"

(P.161). This is evident in the responses of the barriers to FP expressed by women later in this study.

Abdulraheem (2007) also noted that the utilisation of modern health facilities was higher among women than men, which he suggested may be due to the higher prevalence of illnesses amongst women and children, which the latter are mostly still responsible for taking to the hospital.

Thus, a need to understand the relevance of health facilities in providing information services to rural men and whether a disparity exists in the use of these facilities by gender. This will also contribute to the literature on gender IB and channel preference, which will inform the use of channels accessible to rural dwellers for targeting FP information.

2.6 Information-seeking Behaviour and Information sources of Rural Men and women

According to Marchionni (1997), ISB is the "purposeful" search for information, which is the result of a need to satisfy a goal. This can be either an active or passive process (Robson 2013), which involves information-seeking and activities that change an individual's state of knowledge (Martzoukou 2006).

The rural dweller is characterised by poverty, disease, low level of literacy, lack of necessary infrastructure such as roads, good water and health facilities (Nwagu and Ajama 2011; Lasisi and Saleh 2009; Momodu 2002). Information seeking behaviours among such people can be described as primarily 'informal' (Hjortsberg and Mwikisa 2002). Although a few literate adults have been recognised to use formal sources like radio, television, internet and health facilities to gather information (Ojua and Ishor 2013; Nwagwu and Ajama 2011; Saleh and Lasisi 2009; Abdulraheem 2007; Momodu 2002), just as findings in Burkina Faso (Muller et al. 2003) Ghana and Kenya (Burton et al. 2011), many rural dwellers still rely on informal sources for information.

For instance, Njoku (2004) conducted a study into the ISB of rural fishermen in Lagos Nigeria, relatives, friends and neighbours were identified as the primary information sources which are informal information sources like findings in the

South-East (Nwagwu and Ajama 2011), South-South (Momodu 2002) and North-East (Saleh and Lasisi 2009) Nigeria. Other studies have emphasised that majority of rural dwellers who adopt more 'formal' information-seeking behaviours and tend to trust formal sources are people of higher economic, educational and social status (Momodu 2002; Burton 2011).

The IB of rural dwellers is determined by socio-economic status, cultural beliefs, gender, and environmental factors, which are responsible for shaping individual needs, physical, socio-economic, cultural and political factors which determine men and women's choice of information sources (Liu 2017; Islam and Ahmed 2012; Dutta 2009; Shaik and Hatcher 2004). For example, a review of studies in IB in developed and developing countries by Islam and Ahmed (2013) reveal that the ISB and favoured sources of women is shaped by a combination of the cost of transportation to health facilities (Spence 2006) and their culturally conditioned preference for information from their husbands (Steinerova and Susol 2007; Sadaf and Luqman e2006). In contrast, a study in Zaria by Ejembi (2004) revealed that few rural women relied on men for FP information; instead, they relied on friends and family. The women's reason for this choice was not explored further.

Even though few studies have focused on the ISB and official (or formal) information sources available to rural dwellers, there is limited literature with a detailed explanation about the major factors influencing the IB of rural dwellers as well as factors influencing their preference for informal information sources. The impact of source preferences and utilisation on the FP IB of men and women has not been investigated; neither has there been adequate research into rural-dwellers' preferences for individual sources over others.

2.7 Barriers to Family Planning

Benefits associated with the adoption of FP highlighted by various studies include improved reproductive health, reduced maternal and infant mortality, higher education, gender equality and higher income paying jobs and food security (Ajaero 2016; Moucheraud *et al.* 2016; Muhoza, Rutayisire and Umubyeyi, 2016; Macquarrie 2014; Kabagenyi et al 2013; Dutta 2009; Adepoju 2014; Babalola 2016; LaCroix 2013).

The following sub-sections will be looking at barriers that deter people from taking notice of FP advice.

2.7.1 Socio-economic factors

Key socio-economic factors identified to affect fertility levels and explain variations in developing countries include; educational status and environmental context (rural/urban). High-income earners, urban dwellers and people with a higher level of education are more likely to adopt a method of FP compared to their counterparts in rural areas, amidst poverty and low education (Mbizvo and Phillips, 2014; Ojua et al. 2014; Ajaero, 2016; Kana 2015).

Education, poverty and environmental factors have been identified to impact on FP attitudes and behaviours (Olayinka *et al*. 2014; Moronkola 2006; National Research Council 1993). There is an increase in FP adoption in developing countries, but this is peculiar to certain countries and sub-regions (Reed and Mberu 2015). For example, in Nigeria, higher adoption of FP is prominent among urban residents with higher income and formal education compared to their rural counterparts. Late marriage among urban residents, which encourages them to obtain an education as well as access to improved health facilities by urban residence has been suggested as a possible reason for this disparity (Ajaero 2016; Mberu and Reed 2015), similar to the findings in Pakistan (Pasha et al. 2015).

On the contrary findings in Pakistan (Agha 2010) and Kano North-West Nigeria (Duze and Mohammed's 2006) revealed that there was higher adoption of FP among illiterates.

Economic development and an improvement in economic status is also argued to be among major factors which increase the uptake of FP (Speizer et al. 2014; Adeyanju 2017; Hagman 2013), and Women who earn higher income are also more likely to gain autonomy in the use of FP lower-income earning compared to their counterparts, similar to findings in Bangladesh (Anderson and Eswaran 2008).

In contrast with the above studies, findings in Rwanda, show a significant increase in FP and use of contraception among women in rural areas who were slightly above poverty level with little or no education which corresponds with findings in

Kano, Northern part of Nigeria (Duze and Mohammed 2006). This success was attributed mainly to adequate planning and strategies employed by major actors in FP and the national government, as well as a focus on the economic sector (Muhoza, Rutayisire and Umubyeyi, 2016).

This suggests that, even in economically impoverished, poorly educated regions such as rural northern Nigeria (52%) (PRB 2016), it is possible to achieve success in FP if providers adopt appropriate strategies adapted to people's patterns of acquiring information. Thus this study set to explore the influence of socio-economic factors on the IB of rural dwellers to add to the existing knowledge gap of low FP adoption.

2.8 Socio-Cultural Barriers

Religion and culture are intertwined and rooted in the culture of various societies (Graff and Bremner 2014; McQuillan 2014). In Nigeria, Christianity and Islam are believed to influence morality and decision making including the non-use of contraceptives (Graff and Bremner 2014) the focus on contraception and abortion by religion is believed to increase low adoption of FP. McQuillan (2004), argues that religious teachings do not shape behaviour, but religious values do, and the ability of the religious institutions to communicate values across to members promotes compliance, thus a need to understand how these values influence the IB of rural dwellers.

Culture promotes early marriage and encourages procreation (Raj 2010). In some cultures, giving out the girl child in marriage at an early age is perceived as a way of preserving her chastity and securing a better future for her (Ojua 2014; Yusuf 2005). This also improves the family's economic status by obtaining a bride price and relieving the child's financial burden from the parents (Amin 2011; Raj 2010; Ojua 2014; Thackeray 2012). This could impede existing and future education (Raj and Chandra-Mouli 2016; Duze and Mohammed 2006; Yusuf 2005). Gender inequity which is evident in the practice of patriarchy is the major factor sustaining this practice in Nigeria, (Amin 2011; Raj 2010; Ojua 2014; Thackeray 2012). According to several studies, younger women who marry at an early age are less likely to be using any form of contraceptive and rely on the experiences of older women and sometimes their husbands for FP advice (Nobelius 2010; Dairo and

Owoyokun). This result is consistent with findings in Pakistan (Pasha *et al*. 2015), Nepal (Acharya et al. 2010), Ethiopia (Haile and Enqueselassie 2016) and Bangladesh (Anderson and Eswaran 2009).

In patrilineal societies such as Northern Nigeria, culture and religion promote gender inequity, giving men more advantage over women both economically and socially. Decision making in the household, communities, including issues relating to a woman's reproductive health and contraceptive use, are made by men in this area (Makama 2013; Hellandendu 2012; Duze and Mohammed 2006; Yusuf 2005). Fathers also have limited interaction with their daughters and wives as a result of gender inequity (Yusuf 2005). This is similar to findings in Pennsylvania among African families, which revealed men (fathers) to use indirect speech in addressing issues on sexuality with their daughters (Aker et al. 2010) suggesting gender biases and patriarchy.

However, early studies on the influence of culture on FP have traced a postpartum practice of abstinence for two years, to ensure better health for the child and mother (Yusuf 2005; Renne 1996; National Research Council 1993). Also, considering the evidence of a significant decline in fertility rate in Muslim populated countries such as Ethiopia (Haile and Enqueselassie 2016), Pakistan (Ali et al. 2004), and Bangladesh (Murshid 2017) as a result of increased use of FP. Although this is worthy of more in-depth analysis, an examination of the influence of religion in the FP IB of rural men and women in Zaria is necessary for understanding their use or avoidance of FP information.

2.8.1 The Role of Men in influencing Family Planning

Men have played a vital role in influencing low FP adoption as research suggests that they are the primary decision-makers about familial practices in most rural areas in developing countries (Kabagenyi et al. 2014; Duze and Mohammed 2006). Women have little or no power to negotiate sex and issues on reproductive health due to gender inequality (Hellandendu, 2012; Orubuloye 1997; Kabagenyi et al. 2014). Men's desire for male children and poor communication among spouses have also been identified as reasons for their negative attitude to FP (Apanga and Adam 2015; Oni and McCarthy 1991). The number of children a man has serves as a proof of his; prowess, future wealth (Bride price) and family name continuity (male children) (Apanga and Adam 2015; Aransiola, Akinyemi and

Fatusi 2014; Izugbara and Ezeh 2010; NRC 1993). Reports and findings have shown that recent access to FP services insists on having men's consent before supplying any form of the modern method of FP to women (Tumlinson Okigbo and Speizer 2015) which encourages low adoption. Other researchers have argued that the primary reason for men's negative attitude towards FP has been the gender-specific/female-centred structuring of programmes – and the poor targeting of men towards (Kabagenyi *et al.* 2014; Okigbo *et al*. 2015). It is, therefore, significant to understand men's IB and their perception of ways to target them better.

In Kenya (Emenike and Dalal 2008) and Bangladesh (Murshid 2017) findings show that women in patriarchal dominated regions to gain control over their bodies, health, and future, use family planning in clandestine.

Men claim that they are excluded from family planning programmes - hence their resistance (Greene and Biddlecom, 2000). These suggest that understanding the underlying reasons why men may potentially be preventing their wives from practising a form of contraception – and not doing so themselves - by investigating their IB and the sources they consult (or avoid) may offer important pointers as to how they might be exposed to messages and approaches that will improve their engagement with FP.

2.8.2 Service Providers Biases

Biases of service-providers have been found to exist about age, sex and marital status (Tumlinson Okigbo and Speizer 2015; Sidze et al. 2014; Hebert 2013). The above studies found that providers are more receptive and more likely to supply contraceptives to single men compared to their female counterparts and to married rather than unmarried clients. Although this was seen to have come from genuine concern, stemming from misconceptions about a side effect, and societal expectation of abstinence by unmarried individuals. This practice has been demonstrated in Nigeria by Oye-Adeniran et al. (2005) to increase unmarried individual's (49.1%) reliance on patent medicine stores for FP information like findings in Ghana (Apanga and Adam 2015) and South-East Nigeria (Ozumba and Ijioma 2005).

Hence, a need to re-examine the experiences of rural dwellers (married and unmarried) with health providers, considering that they are among the major formal information source(s) mentioned.

Distrust for government and international donors have been reported to serve as a barrier to FP (Renne 2006; Yahya 2007). For example, a study by Renne revealed the relationship between the rejection of the polio vaccine and FP in Zaria as an attempt to reduce the population. Through information sharing, people believed that the government was aware of the administration of the trial Trovafloxacin Mesylate, given at no cost during the 1996 cerebrospinal meningitis without informed consent. This initiative was believed to be internationally sponsored and nationally promoted by the Nigerian Government through the media to reduce the Zarian population. The belief that that government was aware that it was a trial vaccine but failed to exercise due diligence in informing the people before testing this vaccine increased distrust. A Recent study in Nigeria reported the existence of this notion currently in circulation among rural dwellers, hence increasing distrust for international donors and the government.

There is, therefore, a need to investigate the people's feelings about major FP actors in rural Nigeria to find out how this feeling affects their IB.

In summary, this chapter identified existing literature on the IB of rural dwellers, dominant information sources accessible to them, and the barriers faced in utilising FP information. The gap revealed based on these reviews shows a preference for informal information sources by rural dwellers and the influence of socio-cultural practices on FP. However, there is limited literature on the influence of these factors on the FP information behaviour of the people and reasons they prefer informal information sources over formal sources. Again, there is limited literature on the influence of gender on IB; thus, this study set to add knowledge to these identified gaps

3 CHAPTER THREE

Research Background

This chapter provides an overview of the Nigeran setting, the context and the issues in Zaria. This is significant in providing an in-depth overview of the area of study.

3.1 Overview of the Nigerian Setting

The research focused on Nigeria, which is a country in West Africa located along the eastern coast of the Gulf of Guinea. It covers an area of 923,768 square kilometres. There are about 250 ethnic groups, and more than 500 languages are spoken in this country. The three dominant ethnic groups are Hausa, Igbo and Yoruba (NDHS 2013).

Nigeria has a population of about 190,886,311 (World Bank 2017) which makes it the most populous country in Africa and the seventh most populated globally with an annual growth rate of 3.2 annually and a TFR of 5.5, with variations across states and regions (World Bank 2017, NDHS 2013). According to the National Bureau of Statistics, 45.9% of the population are women, while 50.5 % constitute the men and 3.6% are infants. Constitutionally, the country is divided into 36 states and one Federal Capital Territory (FCT) Abuja. These states are further divided into six geopolitical Zones[4] namely; South-East, South-South, South-West, North-Central, North-East and North-West region, these zones are not classified based on geopolitical location, but rather grouped based on states with similar cultures, ethnic groups and common history (Eze and Ogbodo 2014; NDHS 2013) to ensure efficiency in running the states and adequate provision of social amenities including health services.

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[4] List of states in the six geopolitical zones in Nigeria; **North-Central** (Benue, Kogi, Kwara, Nasarawa, Niger, Federal Capital Territory), **North-East**: (Adamawa, Bauchi, Borno, Gombe, Taraba, Yobe), **North-West** (Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara), **South-East** (Abia, Anambra, Ebonyi, Enugu, Imo), **South-South** (Akwa Ibom, Cross River, Bayelsa, Rivers, Delta, Edo), **South-West** (Ekiti, Lagos, Ogun, Ondo, Osun, Oyo).

There is a variation in occupations in Nigeria between men and women, with the majority of working women in sales and services and an estimated 70 per cent of the population engage in agriculture, but the majority of the men are involved in agriculture. Hence the predominant occupation in Nigeria is farming (NDHS 2013).

Following the colonisation of Nigeria by the British, English is the official language in Nigeria, which is evident in the use of the language in all government interactions and state-run schools. Unofficially, the country's second language is Hausa. Many non-native Hausa speaker's residents in Northern Nigeria speaks both Hausa and their native language as compared to other languages. Hausa is the oldest written language in West Africa, dating back to before 1000 CE. Pidgin a mix of African languages and English is also a common language in the southern Part of Nigeria. Despite all this seeming difference, a similar pattern of behaviour is argued to exist among various ethnic groups influenced by their cultural practices (Nwagu and Ajama 2011). However, language forms a unique feature in this multicultural and diversified country, as various ethnic groups interact and identify each other through the use of language.

In Nigeria, religion remains an indigenous practice and Christianity, Islam and the traditional religion (people who believe in deities) are the prominent religious practices. While the majority of the Hausa Natives in the North are Muslims (Hausa speaking natives), the Yoruba's in the south-west of Nigeria are either Christians or Muslims while the Igbo's in the South-East are majorly Christians and Catholics.

Each state is led by a state governor who influences budgets and wields significant political power. As a result, the implementation of health policies, including family planning benefits from the support of the state government. Each state is divided into Local Government Areas (LGAs). There are 774 in total, each run by a local government council comprising a chairman and councillors.

Nigeria has three central environmental regions - Savanna, Tropical and Coastal Wetland - regional cultures and occupation breakdowns are heavily influenced by these. For example, the dry open grasslands in the Savanna make cereal farming and herding a way of life for the Hausa and Fulani residing in the Northern region. Zaria in the North West region is the focus of this study; hence, the preceding sections provide an overview of the geographical location, population culture, governance, health system and issues in Zaria.

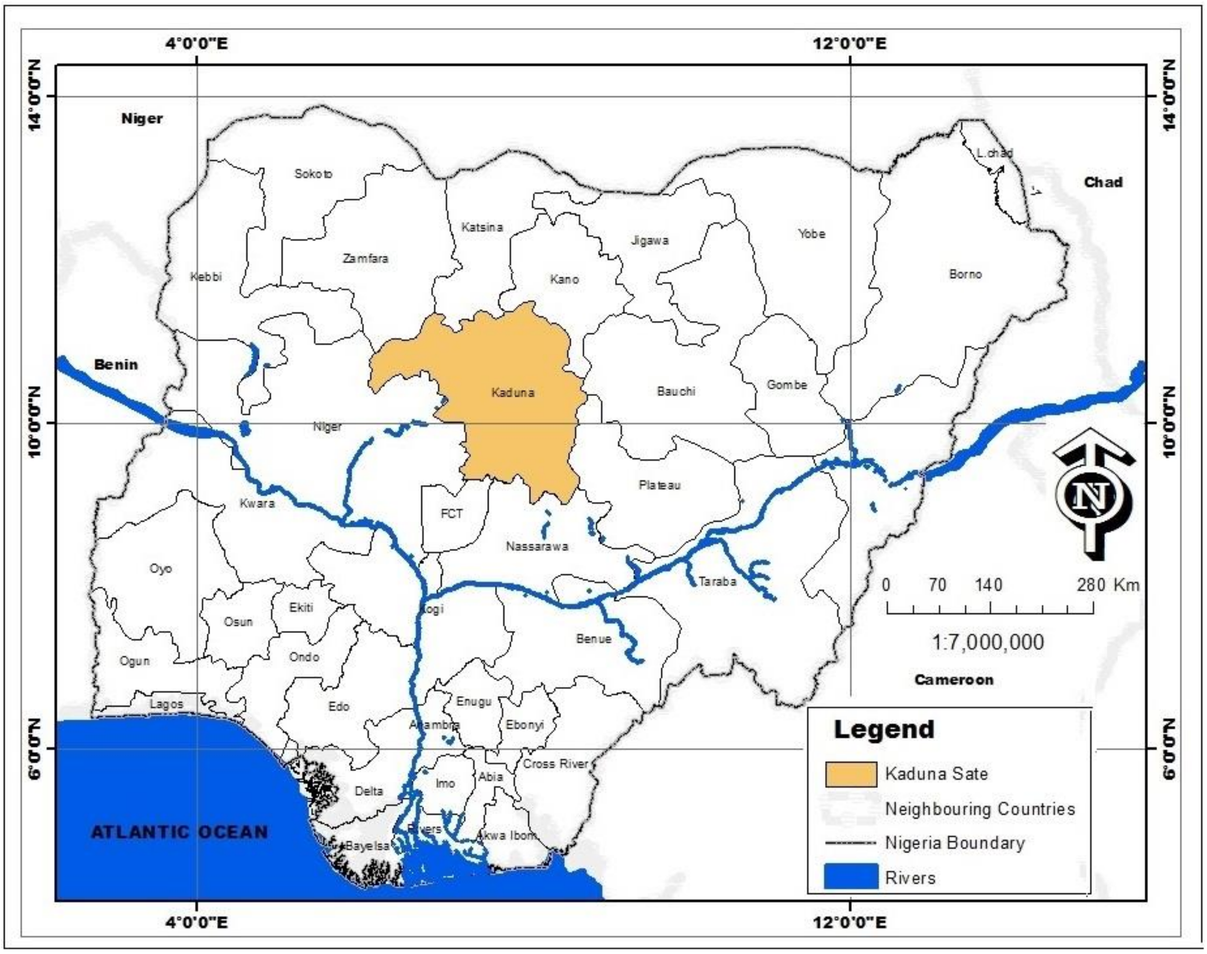


Figure 0:1.1 - Map of Nigeria Showing Kaduna State North Western Region.

3.2 The Context of Zaria

Zaria is a major city and one of the 23 Local Government Area's (LGA) in Kaduna State in the Northwest geopolitical zone in Nigeria. It occupies an area of 563 kilometres. It is a metropolitan city with two major LGAs - Zaria and Sabon Gari. These are further sub-divided into wards, bounded by Igabi LGA in the South, Sabon Gari in the West and Soba LGA in the East. Zaria LGA has 13 political wards; Dambo, Dutsen Abba, Gyallesu, Kaura, Kufena, Kwarbai "A", Kwarbai "B", Limancin-Kona, Tudun Wada, Tukur Tukur, Ung. Fatika, Ung. Juma, Wucicciri, while Sabon Gari has eleven (11) wards; Basawa Bomo, Chikaji, Dogarawa, Hanwa, Jama'a, Jushin Waje, Muchia, Samaru, Unguwan Gabas, Zabi. (Onyemelukwe et al. 2018; Aliyu et al. 2013).

3.2.1 Population and Religion

Zaria is a heterogeneous city with a population of 408,198 (NPC 2006) and a total fertility rate (TFR) 6.7 (NDHS 2013). In 2013, its population increased to about 1,129 688 (Nigerian Urban Reproductive Health Initiative [NURHI] 2013) and to 1.49 million in 2017 (Ahmadu Bello University 2017). Its population currently ranks it as the 10^{th} most populous city in Nigeria, with a Total Fertility Rate of 6.7 (NDHS 2013).

The population of this city is rapidly growing, and its fertility rate is not declining compared to the average fertility rate of the country (5.5).

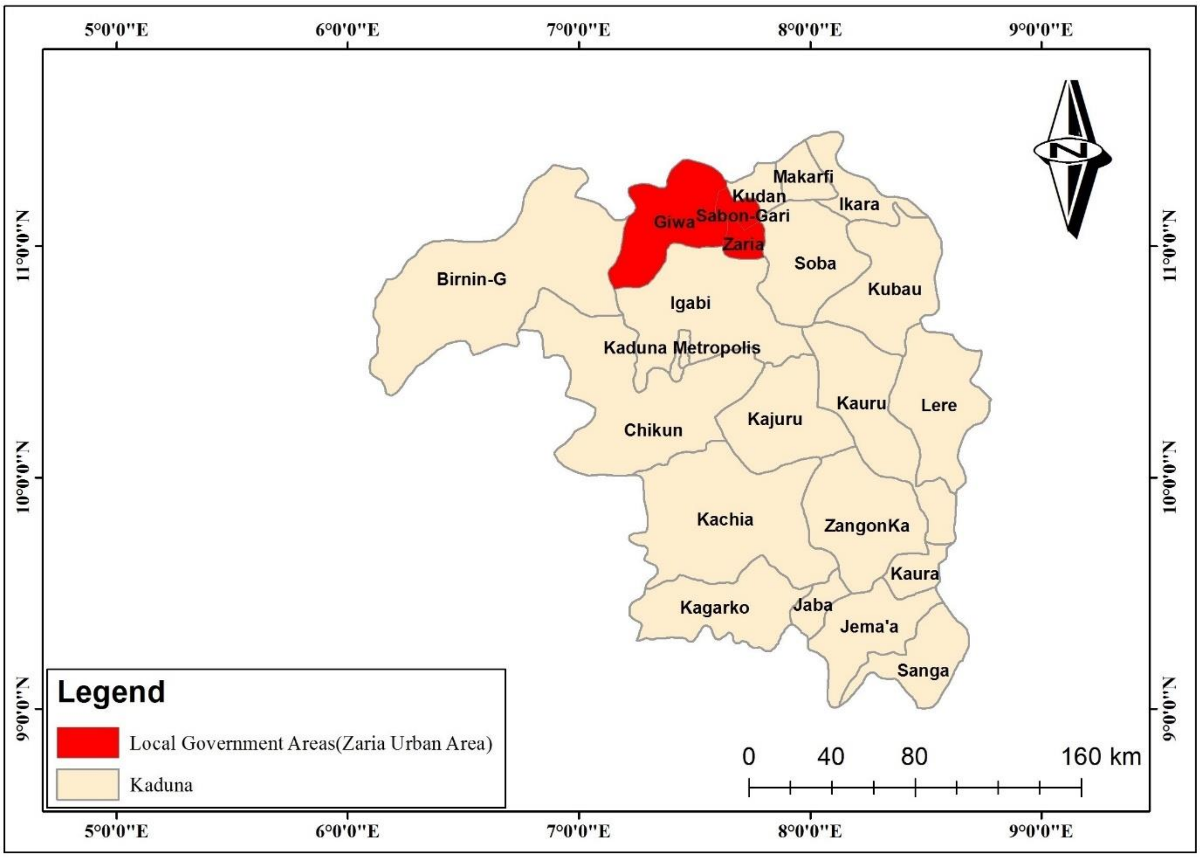
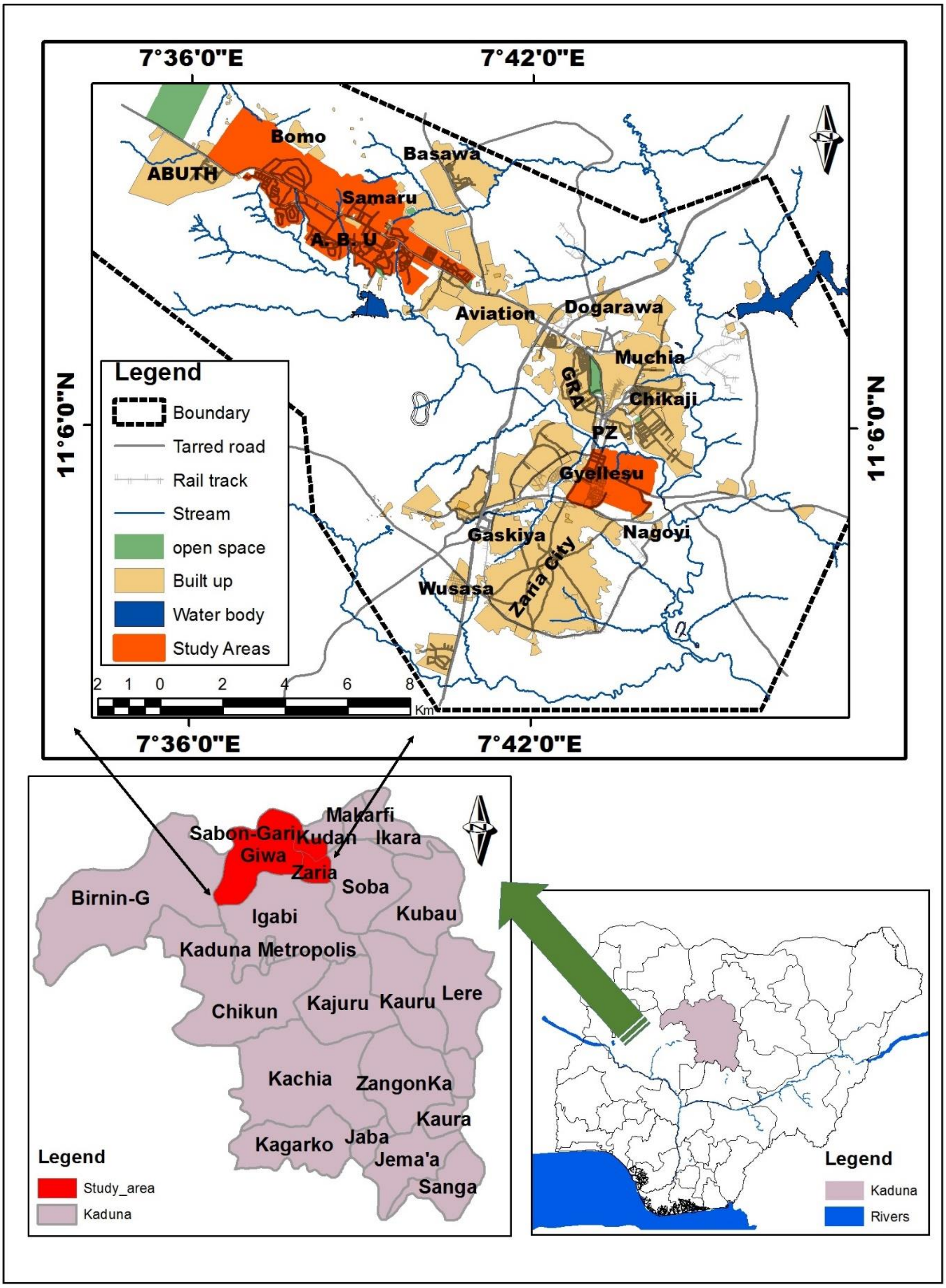


Figure 3.2 - Map of Zaria



Locational Map of Study Area.

Source: KADGIS(Kaduna State Geographic Information System 2019)

Figure 3.3 - A combined Map showing Zaria and the Selected Areas of Study

3.2.2 History and Language

Zaria is a diversified Hausa speaking community, and it is commonplace in this city to see non-indigenes speaking Hausa.

Zaria is called Zazzau and its inhabitants Zazzagawa. It is one of the seven Hausa states of the early 15th century Nigeria.

Governance in Zaria

Zaria is an LGA in Kaduna state, which is governed by a state governor, who is answerable to the Federal Government and in charge of making allocating budgets to LGAs considering their social and health needs (State Partnership for Accountability, Responsiveness and Capability (SPARC) 2013)

Zaria City is the administrative headquarters, with the Emir of Zazzau as the traditional ruler who is the custodian of the city saddled with the responsibility of upholding cultural and religious values, and when it comes to political elections majority of the community members vote that candidate who is blessed (supported) by the Emir, British Broadcasting Commission (BBC 2018).

3.2.3 Health Facilities

Each of the wards has a health centre, and there are about twenty (20) Primary Health Centers (PHC) run by a staff of the Zaria Health department and twenty (20) Private Health Centers owned and run by individuals (NURHI 2013). The major but not exhaustive of the services provided by the PHC are a treatment for minor ailments/ common diseases (Malaria and typhoid), ante-natal care, post-natal care, adult care, family planning services and immunisation against childhood diseases (Obembe et al. 2017). The method of payment for services rendered is the responsibility of the individual who has utilised such service (Adegboyega and Abioye 2017).

Before the advent of orthodox medicine, traditional treatments and healing methods predominated. Farmers, hunters and pastoralists were among those who acted as traditional healers, deriving medication from herbs and animal products, according to Abubakar (2007). They seemed to have a more pragmatic way of providing treatment compared to their spiritual counterparts called (Mallamai) who are believed to cast out demons who cause sicknesses by conjuring with spiritual deities (the Muslims majorly access this type of medicine).

3.2.4 Economy of Zaria

Due to the Savanna region where Zaria is situated, it is one of the major producers of cotton for export, as well as other cash crops like tobacco, soybeans, sugarcane, ginger and groundnuts (Peanuts). Millet, Cowpeas, sorghum and cowpeas are food crops produced, while livestock is reared and grazed for meat. Many people own houses of their own, while others live in rented apartments, paid for on a monthly or annual basis. Sub-Saharan Africa in 2016 was ranked the worst worldwide in terms of electricity access and supply (Ahmad 2012). Findings also from this study reveal that The Power Holding Company PHCN falls short of its expectations, as the majority of the women attributed inadequate power supply as a disadvantage to accessing media messages on radio and television.

Due to the heterogeneous nature of this city, occupations differ based on religion and level of education and gender. While some of the women and men who obtain a form of education work in the universities, polytechnics and primary schools as either academic or non-academic staffs, other women are full-time housewives. While indigenous men of Zaria are traders in grains, livestock, and vegetables in the markets, some of the men are into traditional medicine. They sell their treatment on significant market days, using the public address system to advertise and sell their products.

3.2.5 Religion

Zaria is predominantly a Muslim community with mainly Hausa and Fulani ethnic groups. Christians account for about 31-32 per cent of the entire population in this area (NPC 2017).

The majority of the Christians are immigrants from Kaduna south and other parts of Nigeria. The popular Christian denominations in Zaria is the Catholic and the Evangelical Church Winning All (ECWA).

The Major Holidays observed are the holy days of the Islamic Calendar and the Christians Holidays on Good Friday (The death of Jesus Christ) Easter day (The Death of Jesus Christ) and Christmas celebration (The birth of Jesus Christ). For these reasons, it is essential that religious leaders are involved in the dissemination of information on FP and holidays are put into consideration by the media in selecting days to disseminate family planning messages.

3.2.6 Education

According to Kaduna State Bureau of Statistic (2017), there are 69 pre-primary, 185 primaries a (110,860) public schools, while there are 19 public secondary schools and 63 private schools. The report reveals that the ratio of boys to girls attending both primary and secondary school is 50.2:49.8%. This shows that education is made available to both the male and female child in the state (Kaduna State Bureau of Statistics 2017).

There is also a concentration of tertiary institutions to include the first university in the Northern Nigeria Ahmadu Bello University, Nigerian College of Aviation, National Research Institute of Chemical Technology (NARICT), National Institute of Technology and Transportation (NITT), Federal College of Education and Nuhu Bamali Polytechnic (Ameh and Sule, 2007).

The concentration of various Nigerian institutions in this city provides a picture of a diversified community and emphasises a need to present and provide family planning information via various channels to accommodate the heterogeneous nature of this community.

3.2.7 Relationships

Hausa people are widely characterised as being quiet and reserved, termed "Kunya", prominent behaviour among the women. They are taught not to show emotions when they interact with outsiders. It is considered disrespectful for a woman to call her spouse or in-laws by their name or sit and talk to her father at close range, the mother is usually the intermediary between the female child and her father. Nevertheless, happy relationships exist among certain relatives, such as siblings and grandparents. Friendship is also encouraged from an early age, as children develop such relationships with childhood neighbours; for the majority, this friendship lasts a lifetime and friends are treated as members of the family. The close family knit and minimal interaction between parents and children of the opposite sex, and the "Kunya" between a mother and her female child which prevents them from discussing sexuality, encourages children to rely on friends for such information (Yusuf 2005).

Family

Family is seen as an essential unit among the Hausas; the family is firmly bond and engage in various farming and trading activities in rural areas and business activities in urban areas.

The father (Male) is the primary decision maker within the home and the community, he is also the primary breadwinner of the family and in control of economic resources (Duze and Mohammed 2006) while the mother is the principal caregiver for the children and older members of the family, with little or no right in decision making(Yusuf 2005). The family is often the first point of contact for settling marriage, friendship and family disputes.

3.2.8 Marriages

Families arrange marriages for their children on some occasions, while others engage in First World-style dating before marriage. Also, marriages are also arranged by parents between relatives such as cousins. This is a preferred practice among Muslims, in particular. It is believed that the man will treat the woman better if she is his relative, and the family will always be there to settle disputes. Islamic law allows a man to marry four wives. Following the Islamic culture, some wives may live in seclusion, only permitted to go out for weddings or medical treatment. In contrast, the Christians in Zaria practice monogamy, and marriage among relatives is seen as a taboo for Christians.

Pre-marital sex is also frowned upon by both Christian and Muslim parents and pregnancy before marriage is a taboo. An unmarried pregnant girl may be ostracised in some Christian communities and asked to sit at the back seat in church for a period as a punishment for allowing the devil lead her to sin and at risk of being disowned by her family and losing her friends as parents see her as a bad influence on their children. This explains why single women and men do not feel comfortable seeking information on family planning from experts, having that the community is close-knit with anonymity and confidentiality not guaranteed.

Hence a need to generate information sources that will accommodate the information needs of singles in Zaria.

3.3 Issues in Zaria

3.3.1 Maternal Mortality

Zaria has a maternal mortality ratio of 800/100,000 live births, 115 infant deaths to every 1000 births and an HIV/AIDs prevalence rate of 6 per cent. The prevalence of high maternal mortality in Zaria has been dated to as far back as 1985 (Harrison 1985), despite concerted efforts made to increase awareness of FP, the use of modern contraceptives is still reported to be low among residents, despite an increasing awareness of various modern methods of contraception (Harrison 1997; Ejembi et al. 2004; Madugu et al. 2017).

3.3.2 Poverty

Jacobson (2018) argues that poverty is a debilitating disease which is suffered by two out of every three around the world and is particularly prominent among rural women involved in agriculture, formal and informal labour markets, and 40.3 per cent are housewife's (Ejembi 2004). Considering the principal occupation of women (petty trade) and men (subsistence farming) in Zaria, it suggests the existence of poverty in the area.

3.3.3 Power Supply

Developing countries continue to face enormous problems in the energy sector, which is key to economic and health development. The cause of this problem, among others, includes government policy, societal factors and effective energy management and skilled personnel (Oricha 2009; Ikeme and Obas 2005). This has in no way supported the poverty alleviation programmes, including improving the health status of the people. For example, in Nigeria, where family planning messages are disseminated via the radio, it becomes inaccessible to the target audience if there is no power supply. Furthermore, inadequate supply has stifled the Nigerian economy, especially in rural areas, making small industries and businesses stunted and increasing the poverty levels in this community (Ikeme and Obas 2005).

3.3.4 Ethno-Religious Crisis

According to Salawu (2010), ethno-religious crises have been problems for Nigeria since independence in 1960. This is because Nigeria is a multi-ethnic and multi-religious nation, and this has contributed to a climate of ethnic and religious intolerance (P.345). The recurrence of ethno-religious conflicts is especially prominent in Northern states, and Zaria is one of the affected areas (Salawu 2010). Struggle for power, domination, exploitation and bigotry have repeatedly led to the enormous loss of lives and properties. Again, the Almajir[5] have been revealed to constitute major participants in these crises in Northern Nigeria (Okunola and Ikuomola 2010). Suggests that, children born into families not capable of economic provision sometimes constitute nuisances to society in Northern Nigeria.

3.3.5 Primary Health Care Services and Utilization (PHC)

The Local Government of various areas provides PHC services through health centres and services by nurses, midwives, community extension workers, health technicians and doctors. Despite the even distribution of these facilities in every LGA, Abdulraheem et al. (2013), argue that services of the PHC are underutilised by the people, identifying transportation and communication, dissatisfaction in responses provided by rural health workers to identified problems, illiteracy and distrust for government and some health workers, leading to resistance of accepting new ideas. Similarly, Adegboyga and Abioye (2017) agree that elites in rural areas underutilise PHCs because they do not trust the quality of services to meet the health needs of the enlightened and affluent. They argue that this may not be a displaced notion, considering the poorly constructed, situated and equipped state of these facilities. It is important to note that findings in this study also revealed that the elites in rural communities are regarded as significant sources of information (experts). The feedback rural dwellers get from elite counterparts regarding these health facilities may also explain their distrust to access quality information from rural health providers and the government. The cost implication of PHCs serves as a barrier to accessibility by people in Zaria (Adegboyga and Abioye 2017).

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[5] Male children are separated from their parents at an early age and sent to neighbouring or distant towns to acquire Islamic knowledge. They survive by begging for alms on the streets.

3.3.6 Malnutrition in Children

Malnutrition was revealed to be prevalent among children in Zaria, as a study conducted by Akuyam and Ogala (2009) revealed the absence of protein-energy to be the primary cause of Kwashiorkor and weight loss suffered by children in this area. This may also be due to a large number of children born into poverty and inadequate social amenities.

3.3.7 Transportation

The transport system in Nigeria is privately owned, with no discounts for the elderly or other travellers. The buses are usually small and overloaded, and the roads are bad and with frequent occurrence of accidents (Aderamo and Magaji 2010). This makes travelling from one point to the other inconvenient for people in rural communities.

In summary, this chapter describes the Zaria setting as well as gives an insight into challenges, environmental and other factors which may affect the FP information of Zaria residence. These identified areas of context were also significant in the data collection process and the interpretation and discussion of findings.

4 CHAPTER FOUR:

Research Methodology

4.1 Introduction

In this chapter, the details of the methods and procedures adopted in the study in narrowing the knowledge gap are discussed.

4.2 The Research Philosophy

Saunders et al. (2009) outline ontology, epistemology, and axiology as the three dimensions of research philosophy.

This study was concerned with identifying the major FP information sources and preferred advice givers of rural dwellers in Zaria, primarily by investigating their IB, but also their epistemologies: the process of understanding reality (Creswell and Poth 2017). This was adopted to understand the activities and challenges faced by men and women in Zaria, which informs their IB and influences their decision to use or ignore specific information source(s).

4.2.1 The Research Design

The research design shapes the study from the problem identification stage to the analysis and interpretation of data collected (Merriam and Tisdell 2015).

The research was motivated by the researcher's observation of the current low adoption of FP in Zaria and the limited existing literature on the FP IB of men and women in the Zaria rural North of Nigeria.

Dutta (2009) argues that relatively few studies have been conducted in the area of ISB in developing countries and, similarly, Wilson (1999) identified a relative paucity of models of IB compared to models of ISB. No previous study has been identified, which addresses the influence of IB on the take-up of FP in Nigeria.

A qualitative approach using semi-structured in-depth interviews through phone calls (SSII Telephone) was adopted in contrast to the major quantitative studies in FP, which use questionnaires, structured interviews, and data evaluation forms for data collection (Okigbo et al. 2015; Adeyanju 2017; Babalola and Olubiyi 2015). The thematic analysis which identifies recurring patterns in the text to understand a phenomenon was used to understand 'Why and How' low adoption of FP continues to thrive despite several interventions as well as the prioritisation of specific channels over others, contrary to the salient use of logistic regression, chi-square and correlation in FP studies.

4.2.2 The Rationale for Qualitative Design

According to Green and Thorogood (2018), qualitative methods are necessary to generate useful knowledge and information concerning how information is accessed, processed and used. By interviewing individuals, it is also possible to ask them about their reasons for behaving in particular ways – and why they might trust and privilege specific information sources while rejecting others. In contrast with quantitative structured interviews which require a representative sample to ascertain validity, due to the closed-ended nature of the questions (Neuman and Robson 2014; Bryman 2006), the interactive design of the qualitative method makes for in-depth engagement with participants. Thus argued to generate rich data for understanding a phenomenon (Creswell and Poth 2018; Green and Thorogood 2018; Iofrida et al. 2018; Silverman 2016; Holloway and Galvin 2015) . The aim of qualitative research was also to understand the lived reality and experiences of the studied population (Campbell, Taylor and McGlade 2016).

For more in-depth insights into the FP information experiences of the target audience which provides possible explanations for their IB, the qualitative method is recommended to enable the researcher to gain insight into the broader values and background family and cultural contexts that influence their choices of advice-givers – and determine those they ignore or avoid (Iofrida et al. 2018 p. 470).

Although the data in qualitative research is not generalizable, smaller samples compared to the quantitative approach are used (Silverman 2000). Qualitative research allows for rich data collection; the findings are also applicable across more extensive populations within similar contexts (Green and Thorogood 2018; Cresswell and Poth 2017; Silverman 2016; Holloway and Galvin 2016).

Chetty et al. (2014) suggest the use of the purposeful sampling technique, which allows the selection of participants who have the characteristics required to achieve the aims and objectives of the study. Similar to the suggestion of the use of sampling technique as highlighted by Oppong (2013).

Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. They seek answers to questions that reveal how social experience is created and given meaning. In contrast, quantitative studies emphasise the measurement and analysis of causal relationships between variables, not the detail and complexity of the process itself (Campbell, Taylor, and McGlade 2017).
With qualitative methods, due to the open-ended nature of its data collection instruments and the ability to probe in the course of semi-structured interviews, the participants can be prompted to describe or "narrativize" (Hollway and Jefferson 2012) their various experiences with specific FP products and services (including levels of satisfaction or dissatisfaction). This enables the researcher to understand meanings and associations that might be ascribed to events and circumstances by his/her research subjects, and which might be relevant to improve the quality of information and channels used in communicating FP initiatives (Soafer 1999; Soafer 2002).

According to Wilson (1999), qualitative research is appropriate for studying human behaviour because quantitative research cannot be used to explore people's lived experiences, as it focuses on measuring patterns, scale and frequency in phenomena, rather than offering insights into how they come about. He adds that the use of quantitative research methods has contributed to limited development of theory and practical application of research into IB (p. 250). Thus, to make a meaningful contribution to the existing body of knowledge in IB research, a qualitative research method was adopted to understand how men and women's lived experiences affect their levels of engagement with FP information and communication channels in Zaria.

4.3 Research Strategy

Ethnography studies a culture-sharing group by examining their language, values, and beliefs over a prolonged period and developing patterns which are relevant to providing a complete and elaborate description of the groups studied (Hammersley and Atkinson 2007). It also helps the study of participants within a specified culture, enabling in-depth insights into IB/ISB (Bernard 2017). This suggests that ethnography would be appropriate for examining the cultural patterns influencing the FP attitude of men and women in Zaria. However, in order to adopt this approach effectively, a prolonged period of study would be required using participant observation (Creswell and Poth 2018; Bamkin, Maynard and Goulding 2016) or an even more immersive approach. Apart from the limitations of time and resources that militated against using a more ethnographic approach, Zaria has been identified as one of the high-risk zones in Nigeria, due to the insurgency in Northern Nigeria (Okunola and Ikuomola 2010). Hence participant observation was not feasible in this study.

Narratives focus on the culture, language, social and family values which shape an individual(s) experience through story-telling in order to identify relevant issues and demonstrate the need for action to address them (Clandinin and Conelly 2000). The aim of this study is not to identify the existence of specific issues, but to understand *why and how* context informs the IB of individuals and its influence on their decisions to utilise or ignore information from specific sources.

Having reviewed a variety of potential qualitative approaches to inquiry, a phenomenological case study approach was adopted. According to Tight (2010), there is no single model for defining a case study. Instead, it can be described as a case, method, strategy, design or approach, depending on the range of social research approached. Yin's (2003) definition of case study is adopted for this study. This is conceived as "an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not evident" (p. 13).

Case studies can be single or multiple. A multiple case study is a review of several single case studies to identify limitations in order to justify its applicability on a broader scale within the same or similar contexts. According to Yin (2003), there are two approaches to the use of case study, the single case study, described as an exploration of a single entity to expand and generalise analysis and theory (Yin 2003; Yin 2018) and the multiple case study approach focused on studying a larger 'sub-unit' of an entire population. In this study, two wards in Zaria (Zaria-City and Samaru) were selected as sub-units of the Zarian population, with multiple individuals interviewed in each case.

This study focuses on identifying and exploring the factors responsible for the comparatively low adoption of FP in Zaria by investigating the IB of parents and prospective parents in the region. Consequently, the case study investigates a contemporary phenomenon (FP) within its real-life context: a fundamental approach when the boundaries between low adoption of FP advice (the phenomenon) and context (religion, culture and environment) are not clear. This strategy also enabled the researcher to identify and access representative sub-units of the Zarian adult population, in order to capture the complexity of this phenomenon in the context of more localised or specific contextual conditions (Patton 2005), including the specific range and nature of information sources available to them (both formal and informal) and the influence of these factors in determining their preferred advice-givers and overall IB (Robson 2013). The strategy was therefore chosen to answer the questions of 'how and why' individuals and families behaved as they did about FP information, in order to provide a better understanding of the nature and complexity of the IB process in Zaria.

This strategy was inspired, in part, by Creswell and Poth's (2018) conception of phenomenology as a means of understanding "the recurrent meaning for several individuals of their lived experiences" (p.75). The researcher's concern was to reconstruct and analyse the everyday experiences participants have while encountering a phenomenon (Moustakas 1994). Similarly, Stake (1995) asserts that phenomenological case studies allow people's lived experiences in their natural settings to be investigated. Moreover, by selecting a representative sub-unit, or sub-units, of an overall population, researchers can identify common behavioural patterns (Yin 2018; Eatough and Smith 2006;Bramley and Eatough 2005; Stakes 1995; Parry 2003; Smith, Jarman and Osborn 1999), and examine how members of a society routinely make sense of particular situations using commonly held knowledge and through interaction with peers (Siddique 1990).

In this study, the use of a phenomenological case study assisted in understanding how the people's collective knowledge of culture, religion and gender roles determine their perceptions of FP information and its influence on their information-seeking, information-taking, information-based actions and more general IB around this issue. Zarian parents' experiences of FP information, through passive or active engagement with it (Wilson 1999), and its overall influence on their selection of preferred sources and advice-givers, was the phenomenon under investigation (Moustakas 1994). According to Moustakas (1994), transcendental phenomenology asserts that "all objects of knowledge must conform to experience" (p. 44), and every aspect of existing knowledge is the representation of an object in an individual's consciousness informed by that which appears in the environment. Thus, a relationship exists between the knower and the things he or she comes to know.

Moustakas' (1994) transcendental phenomenology, which focuses on Husserl's (1970) concept of "Epoche" (p. 85), is adopted in this study. "Epoche" is described as invalidating preconceived ideas and judgements about existing things in preparation for the acquisition of new knowledge towards the phenomenon under investigation (p. 85). Although existing knowledge about a phenomenon is set aside, the reality of its existence is neither eliminated nor denied. Instead, the focus of the researcher is on the participants' descriptions of their experiences of a phenomenon, rather than the researcher's interpretation.

In this study, the researcher endeavoured to eliminate her pre-existing knowledge about people's attitudes towards FP in order to find out from participants themselves how they sought and/or gained FP knowledge, by asking open-ended and supplementary questions in the course of the interviews, in preference to the more closed questions common to quantitative research (Creswell and Poth 2017).

The significant concepts which help explain transcendental phenomenology are:

Consciousness

Consciousness is intentional content directed towards an object (Husserl 1965) The process of considering and reconsidering a phenomenon expands and clarifies its meaning, and the act of perceiving is always directed intentionally towards its object. This concept was used to understand the recurrent experiences with FP that currently guide the people's IB.

Act

Quality (judgement, perception) and matter are the characteristics of an object which represents an act. Therefore, an act is a representation of intentional experiences capable of bringing fulfilment to other acts (Moustakas 1994). Through perceiving and reflecting continuously on an act (FP), we come to understand their meaning and how they relate to us through our environmental or personal experiences. This informs our judgement on whether to use or ignore information (p. 52) as the case with FP.

Perception

According to Husserl (1970), intentions with sensation make up perception, regardless of their authenticity. They are believed to exist if they are made up of ideal possible experience (Moustakas 1994). It is a continuous process of acquiring knowledge and experiences open to the development of new perspectives. As with horizons, it depends on the angle from which an issue is viewed. Through reflection and acts of memory, which bring past experiences into the present, and by renewing feelings and images, perception is developed. This concept guided the researcher's interview questions about the subjects' perceptions of FP and related information sources considering their past and current experiences.

Intentional Experience

Intentional experiences are acts of consciousness guided by perception, which is informed by both memory image and meaning (Moustakas 1994 pp. 55). Memory meanings can be validated through prompt perception, but future meanings cannot. They exist as genuine possibilities, demonstrating that intentional experience includes real and ideal content which guides our thoughts to comprehend life. An object (FP) remains static even though an individual's perception of it will depend on the angle from which it is viewed. Thus, the intentional experience is the thematic consciousness that gives a description of specific attributes which constitutes an object and meanings assigned to it (Moustakas 1994). The context of individuals' gender, environment, religion and culture were investigated to identify the extent to which their IB about FP depended on these factors to generate meaning.

Intersubjective Validity

In intersubjective validity, establishing the truth about a phenomenon is argued to depend on an individual's perception: it is a test of their understanding or knowledge of an object (Husserl 1970). In this study, the subjects were asked questions about their 'perception of family planning and motivation to use specific information sources'. Follow-up questions were used to gain more in-depth insight into the description of their lived experiences with FP, and the effect of these experiences on their current perception and FP information behaviour as individuals and as a group (community).

4.4 Data Collection Technique

4.4.1 Piloting the Study

For this research, conducting a pilot study was necessary for the following reasons;

1. To validate the methodological choices.
2. To gain relevant skills and experience in people and time management.
3. To ensure the practical applicability of methodological choices in achieving the set research aim.
4. To evaluate the appropriateness of the data collection instruments.

The primary data was gathered through semi-structured telephone and face-to-face interviews with Zaria residents currently living in Aberdeen for less than two years (to ensure their FP views about Zaria are still relevant).

The study was conducted via telephone and skype with participants in Nigeria. The researcher reached out to participants through the church community, social network (WhatsApp female groups; Nigerian researchers' network of Northern men). Other participants were recruited via referral, as suggested in snowball sampling (Oppong 2013).

Four (4) of the participants were recruited to participate via referral[6], and the first point of contact were acquaintances of the researcher observed to have given birth to more children than medically advised within short intervals.

It was conducted in both English (3) and Hausa (3) language. Interviews in Hausa were translated while transcribing the recordings.

Lessons learned and applied to final studies;

1. A need to place the recorder and the phone in a fixed position for clarity. During the pilot study, the researcher moved the phone from the table to the mouth before asking any question, and sometimes, the questions were unclear as the process of movement interrupted the clarity.
2. The researcher accepted anytime convenient for the interviewees to call them during the pilot study. However, it was evident that the 'convenient' time for the individuals was when they were less busy regardless of the interruptions in the markets. Hence in the course of the final interviews, they were requested to choose a quiet time, which would be convenient for them with little or no interruption.
3. The pilot also identified a need to refine and rephrase some questions. Open-ended questions were found to be particularly useful. For example; 'What is your preferred source of information on the family?'
   Amended to; 'When you need information on health issues, who or where do you go to?'
   '*What are your information needs*'?
   Amended to 'If *someone asks you what type of information you want them to bring to your community what will you say*'?
   Direct question:
   '*Have you encountered any difficulties in accessing family planning information and, if so, in what ways*'? They were reluctant to narrate their experiences.

[6] The referral was made from the first contact.

Hence Indirect questioning was adopted

'Do you know of anyone who has encountered difficulties in accessing family planning or information on family planning before and why'?

4. The art of follow-up questions was learned.
5. Dissuading the act of sharing personal experiences related to the participant's responses, to allow the phenomenon to be interpreted from the participants perspective and not that of the researcher, which is significant in the interpretive framework.
6. For professionalism, a need emerged for the researcher to source an FP advice helpline number, as participants repeatedly asked the researcher about her perception of FP or for help to direct them to the closest family planning centre to their locations.
7. The researcher also identified a need to offer participants a small, non-financial incentive (call credit). During the pilot study, it was discovered that recruiting participants was difficult as they kept complaining about their busy schedule, but with the introduction of the incentive, they were willing to participate and make time to take part in the final study.

In summary, after the pilot study, language, paraphrasing questions and redefining the attributes of the interviewer guided the development of a more effective and streamlined final data gathering process.

4.4.2 Selecting Wards and Participants

Sampling Technique

The purposeful and snowball non-probability sampling technique was adopted for the inclusion of sub-units of the population in the study.

To achieve the purpose of qualitative research allowing for rich data collection that is transferable to subjects in similar contexts, Oppong (2013) and Chetty et al. (2014) have suggested using purposeful sampling techniques, which allows for the selection of participants with the relevant characteristics required to answer the research questions and achieve a study's set aim and objectives. Thus, participants were purposefully selected using age, religion, ethnic group, employment status and area of residence. These demographic characteristics, as highlighted by Robson (2013), have previously proved useful in investigating IB.

However, purposeful sampling was not sufficient to accommodate specific groups, such as the isolated women[7] in the population, so, as argued by Dudovski (2014), snowballing was a cost-effective technique that could be used to help recruit this hidden population. Thus, snowball sampling was included to extend the pool of research participants to include as representative an overall cross-section of relevant individuals as possible.

Although potential sampling bias through the expansion of existing networks of participants has been a criticism of snowball sampling, this was mitigated by randomly requesting visitors or customers to participate based on their background contributions during the phone interviews. By adopting this approach for the present study, it was possible to gain access to men who were significant opinion leaders (Makama 2013) within their families and community as well as the isolated women.

Also, FP has been identified as a sensitive issue, which is sometimes contrary to religious and cultural practices of the predominant residents of the rural areas (Muslims). Thus, referral played a role in building trust (from interviewees), and they felt safe knowing someone known by trusted community members was interviewing them. Snowball sampling was also significant in identifying community members experiencing current FP IB as a result of past or current sources of information.

4.4.2 Criteria for Selecting Participants:

1. Women between ages 18-49 were included. To reflect the NDHS's (2013) declaration of age 18 years as the age of consent and 49 as the age of menopause for women.
2. Men within the age range of 18-53 were recruited following the age of consent and the average age of life expectancy of men in Nigeria (World Health Organization [WHO] 2018); World Bank (2018).
3. Men and women born in Zaria or resident in Zaria for at least ten years (indigenisation process).

[7] Women who are not allowed by their husbands to go outside the four walls of their home, except on very special occasions where they are expected to cover themselves completely with only their eyes revealed.

Criteria for Selecting Wards

Zaria is divided into two wards: Zaria city and Sabon-Gari. Samaru was selected to represent the Sabon-Gari ward due to the situation of the major tertiary institution (Ahmadu Bello University) and the health centre in this ward. This ward was therefore selected to represent the IB and favoured advice givers amongst Zaria rural residents exposed to interactions with diverse multi-ethnic groups, religion (Christianity and Islam) education and social services.

On the other hand, Zaria City, which is inhabited by major indigenes of Zaria and Muslims, was selected to represent the lived experiences of indigenes of Zaria. Therefore, this created a balance in the representation of the diversified population in rural areas in Zaria.

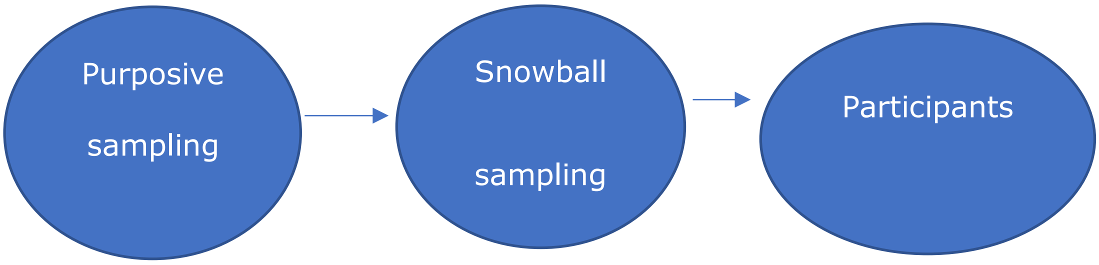

Figure 4.1 - Sampling Process

4.4.3 Sample size

For this study, 12 interviews were conducted with seven women and five men. According to Baker, Edwards, and Doidge (2012), a small number of interviews can produce a significant study depending on the chosen questions and method of analysis. Similarly, Marshall et al. (2013) recommend a minimum of six and a maximum of 50 interviews, arguing that the aim of qualitative research is to construct meaning by "providing analyses that meet the criteria for set objectives" (Psathas 1994, p. 50), rather than striving to make empirical generalizations (Baker et al. 2015; Galvin 2015). This study is concerned with identifying the appropriate communication of FP information in formats which correlate with the IB of the residents of Zaria and not aimed at making generalisations for Nigeria.

In addition, Galvin (2015) demonstrates that there is no finite number of interviews to be conducted in a qualitative research because there is a 71.8 per cent probability of the emergence of a prominent theme existing among 10 per cent of the population (representative sample size in quantitative method Krejcie and Morgan (1970) to become evident in twelve (12) interviews. Hence twelve (12) interviews were conducted with streamlined questions to increase the probability of gathering rich data representing the views of the Zarian population.

4.4.4 Semi-Structured Telephone Interviews

Semi-structured telephone interviews were used as the primary data collection instrument. Brinkman (2014) argues that the flexibility of this instrument allows for open-ended and impromptu questions, which allow for elaborate answers to ascertain participants' understanding of questions. This makes semi-structured telephone interviews a viable instrument for offering a more in-depth understanding of people's lived experiences and how these impact on their thinking and decision-making processes (McIntosh and Morse 2015; Irvine et al. 2013).

Telephone interviews have previously been used effectively to investigate the long-term impact of IB on health issues (Dyregrov, 1999; William et al. 2008). As FP is widely recognised as a health-related issue, this instrument had the potential to achieve the desired aim of illuminating individuals' preferred information sources and formats in the context of FP.

Zaria is currently categorized under the high risked zone due to terrorist activities in the North East area of Nigeria. Hence, conducting a face-to-face interview was ruled out. However, Ward, Gott and Hoare (2015) report that telephone interviews are an important alternative when the face-to-face interview is impossible. Emphasising that participants in telephone interviews report having a positive experience during interviews derived from the relaxed feeling, ability to build positive rapport and the elimination of anxiety associated with eye contact during face-to-face interviews. Also, Sturges and Hanrahan (2004) have demonstrated that telephone interviews can be both cost-effective and useful for generating significant information compared to face-to-face interviews. For example, in their study conducted to investigate the correctional officers and visitors perception of interactions in visiting waiting rooms in county jails in the United States, they compared the telephone and face-to-face interviews. Although they found no significant difference in data generated from both instruments, the feature of anonymity from the interviewer in telephone interviews was significant in accessing hard to reach respondents who would not otherwise have their views represented, also having not to travel was demonstrated to be cost-effective. Likewise, Mahfoud et al. (2015) revealed no significant difference between results obtained in a face-to-face interview compared to a telephone interview. Hence, a semi-structured telephone interview was conducted to understand the phenomenon of preferred advice givers in Zaria as well as how the barriers and challenges faced by men and women in this area shape their information behaviour.

4.5 Data Analysis

Primary data were thematically analysed using the inductive approach, which is widely used in qualitative data analysis (Campbell et al. 2017).

4.5.1 Justification for choosing the ISCM

The ISCM model covers a broader scope which includes IB, ISB and communication, contrary to the Wilson's (1997) model of IB, which places more emphasis on the process of information-seeking and gives more limited priority to the communication process – thereby conceiving of the IB process in a simpler way, when in reality it is more complicated. Applying this model would risk ignoring or downplaying the importance of minute details which may make for a successful investigation into complex issues such as FP, where barriers have been identified but not understood. However, the ISCM puts into consideration these elements and breaks them into simplified categories under sub-themes in context (environmental and personal context).

Although it is titled an Information-seeking and Communication Model, Wilson (1999) demonstrates that information-seeking is one part of a holistic process, which is intertwined with broader human communication processes (Robson 2013; Wilson 1999, Chatman 1996). The ISCM highlights the possibility of an information provider becoming an information user and vice versa, making the information provider and user role interchangeable. The inclusion of Communication, ISB and IB in this model were appropriate for understanding the FP information, search, gathering, use or avoidance process amongst Zaria residents.

It also levels the criticism that "LIS models fail to build on previous models" (Robson 2013; Case 2012; Vakkari 2008; Wilson 1999; Chatman 1996). In this study through the application of the ISCM as an analytical lens, rich data on gender-based IB was revealed, which can be attributed to the blended nature of the model, giving relevance to tiny aspects of context. Through the use of the ISCM as an analytical lens, the context was explored by gender, revealing that the interpretation of FP messages amongst men and women was relative which informed their preference for specific sources and messages over others. The themes of context and communication in the ISCM was used to explore and investigate in-depth the dynamics of gender, culture and religion in determining the selection of information sources and information use which in turn influences IB in general.

The analytical framework demonstrates the required information-seeking and communication process for evaluating past and current activities of the user and the information available by showing the model as a continuum (Robson and Robinson 2013; 2015). Evaluating past and current activities have been argued to be instrumental in achieving sustainable development interventions (Migdal 2001; Besley and Persson 2010), and FP can be categorised as one of such interventions. This means that there is a free flow of information between the user and provider, which allows for feedback, which is described as **effective communication** (McQuail 1994) and can lead to sustainable initiatives.

The themes presented by the ISCM are adaptable component into investigating the reasons for people's actions and providing explanations, by exploring their contextual factors (e.g. environmental, cultural, socioeconomic, psychological) as well as assessing the extent to which the nature of the information at their disposal might itself *influence* their ISB.

Again, the choice of this model is also based on the consideration that major empirical studies centred on testing its validity have been in health-related environments and its practical application was also in Health care (Robison and Robson, 2015) contrary to the argument by Case (2012 pp. 370-371), where he stated that LIS models lack practicable ability.

For example, Robson and Robinson (2015) used it to test its applicability to the user-centred investigation of IB by researching to examine the information behaviour of physicians, and Robson (2013) also used it to test the IB of physicians as providers of Information. This empirical study also shows it applicability to investigating health issues, and FP is a reproductive health issue, it also reveals that it can be used to investigate IB and ISB concurrently. This was also evident in this study, considering that while some women went in search of family planning which entails ISB, some men passively acquired FP information which is considered an aspect of information behaviour termed "passive attention" (Wilson 1997 p. 562). Health care was chosen to test the model because it has been a major field for the "exploration" of information search (Robson and Robinson p.1044). Information search is viable in healthcare, as both physicians and patients continually search for information to keep up with regular changes in the health sector and the wellbeing of individuals. Also, the process of creating health strategy is a continuum, the flexibility of this model is found appropriate as the process can be repeated all over again in the process of strategy formation and information seeking which makes it applicable for investigating FP IB in Zaria.

4.5.2 Thematic Analysis

Thematic analysis is an analytical method of classifying information in themes, by analysing their patterns and interpreting their meaning (Braun and Clarke 2006).

Thematic analysis is a flexible analytic method, which allows for the exploration of pattern across language without restriction placed by a model or framework explaining human behaviour, it searches for meaning in language (Clarke and Braun 2013; Reicher 2000). Thematic analysis is also suggested to be an appropriate method for analysing data in an interpretive study (Guest et al. 2012).

This is an interpretive study which seeks to understand the reason for low uptake on FP despite initiatives. The flexibility of this analytic method minimises the loss and adulteration of relevant information in the process of analysis. This is because data presentation is wordy and not numerical neither are there theories or models guiding the analytical process (Braun and Clarke 2014; Clarke and Braun 2013). One of the critiques of thematic analysis is its flexibility, which may affect the rigour and quality of data being analysed (Antaki et al. 2002). However, Braun and Clarke (2006) argue that a detailed explanation of the function it plays and how it is done limits this constraint.

The interviews were transcribed manually. The researcher began the analysis by searching for words related to the topic and questions, then searched for patterns and regularities to support the interpretation of data (Braun and Clarke 2006). Considering the limited literature on the Information Behaviour and communication process among rural dwellers in Nigeria (and other developing countries), the six-phase framework developed by Braun and Clark was adopted using the interpretive approach to answer the research questions.

4.5.2.1 Process of Thematic Analysis

Figure 3 shows the six-phase guideline for thematic analysis stated by Braun and Clarke (2006), which was adopted in this study.

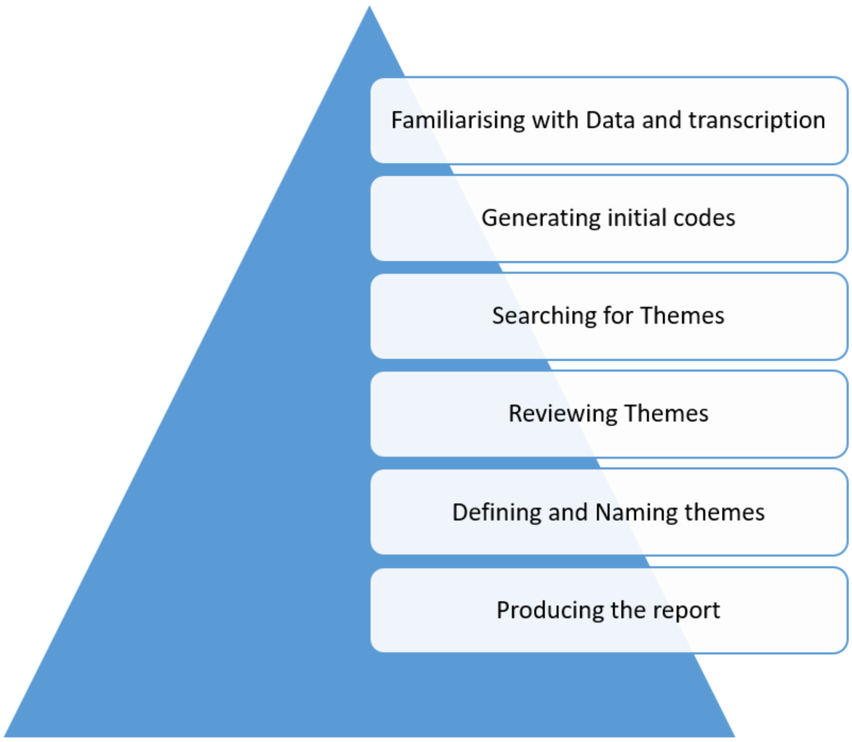

Figure 4.2 -Process of Thematic Analysis

The researcher familiarised with the interviews by listening to the recordings several times and transcribing them word for word (Clarke and Braun 2006). Thematic codes were then generated, allowing patterns to be organised into broad themes. Each interview lasted a minimum of 30 minutes and a maximum of 50 minutes. It took the researcher about four hours to transcribe each of the 12 interviews conducted. Majority of the interviews were conducted in Hausa, and a few in Pidgin English (informal English used for grassroots communication) and the researcher translated to English in the process of transcribing.

Phase 1: Familiarisation with Data and Transcriptions

The first step the researcher took in analysing the interviews was reading the transcripts to familiarise with the content of the interviews, which was useful in developing the participant's perspectives and providing an interpretation of the phenomenon in the process of coding. The researcher also took notes, writing her first impression of answers provided to various questions.

Below is an extract of an early observational note made related to information sources and single women;

'The single women need information on FP, they go to the Pharmaceutical clinics or friends for advice, not because they believe they are the idle information providers, but do so because they will not be interrogated thoroughly and will be judged less by their friends, who may be experiencing a similar phenomenon'.

Phase 2: Generating Initial codes

The generation of codes was determined by the aim of the study and research questions. The data were analysed to address a specific question. Hence, themes/components suggested by the ISCM Model formed the initial codes which were generated. These codes were used to reduce the data into smaller chunks of meaning. However, where interviews transcribed did not fit into any of the themes suggested by the ISCM (Robson 2013), other themes that best describe these experiences were generated.

Context

i. location,
ii. social influences
iii. culture activity
iv. work-related
v. environments.

Demographics:

i. Age
ii. sex
iii. ethnicity
iv. socio-economic status.

- An information user's needs, wants, and goals
- Motivating and Inhibiting factors
- Information-Seeking process
    i. Activities
    ii. Feelings
    iii. thoughts
- Characteristics of the information sources
    i. Utility
    ii. Usefulness
    iii. Relevance
    iv. Timeliness
    v. Accessibility
    vi. ease to use information source
- Credibility and Trustworthiness
    i. Reliability
    ii. authority
    iii. lack of bias in source and information provided.

The broad themes are suggested by the ISCM model, while the sub-themes majorly emerged from capturing interesting quotes which were relevant to the research question. After generating these codes and sub-codes, segments of each transcript were coded based on its relevance to answering the research question and how well they fit the assigned codes.

Phase 3: Searching for Themes

A theme is a broad categorisation of a recurring pattern which captures a significant aspect of the research objective, and there are no rules as to what constitutes a theme (Braun and Clarke 2006). Due to the small scale of interviews, there was an overlap between the generation of initial codes and the search for themes (Maguire and Delahunt 2017). The ISCM model was useful in the generation of broad themes.

Phase 4: Review of Themes

The next step was to review the themes by gathering the data relevant to each theme and re-reading it again. In the process of reviewing themes, the researcher was specific about the following: whether data categorised under a specific theme supported the broad theme; if too much detail was fixed under a specific theme which did not correlate. If there were overlapping themes; the presence of emerging themes which had been mixed under sub-themes, or themes within themes.

Phase 5: Defining and coding themes

At this phase, the researcher refined themes to understand the relationship and interaction between themes and sub-themes. For example, the participant's expectations of FP information source(s) and whether or not the current information on FP met these expectations and the influence of their environment and the challenges faced was revealed.

Phase 6: Producing the Report

According to Braun and Clarke (2006), thematic analysis can be an "essentialist or realist method" (p.81) reporting the experiences, realities and meanings of participants. The findings in this study were interpreted using the themes and sub-themes constructed using the narratives of the participants, which constitute the report in chapter 5 and 6.

4.5.3 Data Management

The categories, patterns, and the interpretation are given to the data were inductively developed. Voice-note recordings and notes taken in the course of the interviews constituted the primary data, and these interviews were transcribed verbatim.

Articles on human behaviour, FP, rural dwellers in Nigeria published in peer-reviewed journals in Nigeria and Internationally were reviewed.

RefWorks was used to manage the Bibliography, which was also useful in synthesising and analysing findings.

4.5.4 Data Quality

According to Saunders et al. (2011), the quality of data includes reliability, validity, and generalisability of the data. Morse et al. (2002) identify verification strategies for establishing validity and reliability in qualitative research which enables the researcher to identify when to continue, stop or modify a research process to achieve reliability and validity (p. 17).

Verification strategies adopted in this study were as suggested by Morse et al. (2002 p.18) to include;

1. Sampling must be appropriate; this involves the inclusion of participants who know about the research topic. In this study, purposive sampling and snowball sampling was adopted to ensure that participants know about family planning, to ensure efficient and effective data was collected to account for all aspects of the phenomenon the study set to achieve. To ensure the trustworthiness of data, a non-indigene of Zaria who had lived a significant part of Her life in Zaria was interviewed as a negative case (Stenbacka 2001). The researcher was interested in ensuring that the IB of Northerner was different from that of people from other parts of Nigeria since the uptake of FP is reported to be majorly low in the North (NDHS 2013). Surprisingly they shared a similar perception about where and how they will search for FP information. Again, with the advent of technology and a little more interaction between rural and urban residents, the researcher believed that the older generation would share a different perception of FP from the younger generation, hence a 60-year-old man was interviewed. Majority of his FP perception did not differ from the responses given by interviewees in this study. This was a process adopted to check the validity and ensure that the opinion of the majority of the population was represented and the sample was appropriate for the study. Saturation from participants' responses was used to verify completeness and comprehensiveness of responses.

Collecting and analysing data concurrently

Morse et al. (2002) affirm that the iterative process of collecting and analysing data enables interaction between what is known and what is being studied (needs to be known), which is the essence of attaining validity and reliability. To ensure this, the researcher transcribed interviews after they were being conducted. The transcription was also a process of analysis which was used to compare the first impression of the researcher about the participants' responses in the course of the interview and the deeper interpretation of what was deduced in the process of transcription. For the researcher, this process made the reflective process clear and enabled the linking of transcripts to specific persons. This was also used to ensure reliability between recordings and the transcripts as participants were called to verify their responses to specific questions.

Thinking theoretically

The new ideas emerging from the data collected were verified by crosschecking existing data in the literature review in chapter 2 and peer-reviewed published works.

Theory Development

This study shows a need to develop the ISCM model further to represent important aspects of information behaviour. For example, the model needs to take note of the active and passive seekers of information in investigating IB. It further shows a need to put into account the influence of gender on IB in producing and selecting FP communication sources.

4.6 Methodological Challenges

In the course of the telephone interviews, communication over the phone was not hassle-free. Due to weak network signals, the researcher was unable to hear the interviewees sometimes and vice versa. As a result, the interviewer had to end the call and call back. This sometimes put the interviewee off the mood and picking up the conversation from where it ended was not smooth. Purchasing call credit to make international calls was also expensive.

4.7 Identified Risk

Due to the Patriarchal nature of Nigeria, especially Northern Nigeria, it was not considered culturally appropriate to involve a married woman in any form of formally recorded conversation without the consent of her husband. Hence for women who stated this clearly, their husbands were contacted. Some of the men wanted to be interviewed first probably to understand the nature of the interviews and decide whether they were willing to allow their wives to participate or, to influence their wives' responses. These perceptions were revealed in the course of interacting with the men who wanted to verify the researchers' reason for requesting an interview with their wives.

2.9 Ethical considerations

Participants were fully informed about the aim and objectives of the research, and it was important to ensure informed consent was obtained by academic best practice and the institutional policies of Robert Gordon University. A consent form was sent to all prospective participants before the interviews, and it was read before the interviews, which followed the verbal agreement of the interviewees on record.

Participants' anonymity and confidentiality were also guaranteed as well as the right to end the interview at any point in. The individual's permission was sought before any form of recording took place. The raw data is securely kept without third-party interference, as stated in the form (Appendix 3). The names used to present and discuss findings in Chapter five, and six are made for simple data analysis and do not link a reader to the actual participants. Also, there were no questions aimed at obtaining age-specific data from participants; instead ranges, were used. It is uncommon practice in Nigeria to ask people for their specific ages in research.

Research Student and Staff Assessment (RESSA) form was completed in conformity with the RGU ethics and governance.

5 CHAPTER FIVE

Presentation of Findings

The results and interpretations of the interviews are presented in this chapter.

5.1 Demographic Characteristics

The purposive sampling was used to ensure that the diverse population of Zaria LGA was represented. Participants representing the two major religions practised in Zaria (Christianity and Islam) were selected. Marital status was also a significant criterion for selecting participants because the researcher wanted a representation of both married and single persons within the sexually active age in the community. Also, there was a higher representation of people with a maximum of secondary school leaving certificate than those with higher education, which is a characteristic or rural dweller (Ajaero 2016).

Table 5.1 shows a representation of the demographic characteristics of participants;

<table>
<tr><th rowspan="2">Category</th><th colspan="2">Gender</th><th colspan="2">Frequency</th><th>Percentage</th></tr>
<tr><th>Female</th><th>Male</th><th colspan="2">(n=12)</th><th>(%)</th></tr>
<tr><td rowspan="4">Age</td><td>18-25</td><td>18 -27</td><td colspan="2">2</td><td>25</td></tr>
<tr><td>26-33</td><td>28-36</td><td colspan="2">2</td><td>25</td></tr>
<tr><td>34-41</td><td>37-46</td><td colspan="2">3</td><td>25</td></tr>
<tr><td>42-49</td><td>47-55</td><td colspan="2">2</td><td>25</td></tr>
<tr><td rowspan="2">Sex</td><td colspan="2">Male</td><td colspan="2">5</td><td>41</td></tr>
<tr><td colspan="2">Female</td><td colspan="2">7</td><td>58</td></tr>
<tr><td rowspan="2">Marital Status</td><td colspan="2">Single</td><td colspan="2">3</td><td>25</td></tr>
<tr><td colspan="2">Married</td><td colspan="2">9</td><td>75</td></tr>
<tr><td rowspan="4">Educational Level</td><td colspan="2">Primary</td><td colspan="2">4</td><td>33.3</td></tr>
<tr><td colspan="2">Secondary</td><td colspan="2">5</td><td>41</td></tr>
<tr><td colspan="2">University Degree</td><td colspan="2">2</td><td>16.7</td></tr>
<tr><td colspan="2">Islamic Education</td><td colspan="2">1</td><td>8.3</td></tr>
<tr><td rowspan="5">Occupation</td><td colspan="2">Farming</td><td colspan="2">3</td><td>33.3</td></tr>
<tr><td colspan="2">Government Worker</td><td colspan="2">2</td><td>16.7</td></tr>
<tr><td colspan="2">Petty Trading</td><td colspan="2">5</td><td>16.7</td></tr>
<tr><td colspan="2">Student</td><td colspan="2">1 (Male)</td><td>8.3</td></tr>
<tr><td colspan="2">Unemployed</td><td colspan="2">1 (Female)</td><td>8.3</td></tr>
<tr><td rowspan="3">Ethnicity</td><td colspan="2">Hausa</td><td colspan="2">10</td><td>83.33</td></tr>
<tr><td colspan="2">Igbo</td><td colspan="2">1</td><td>8.3</td></tr>
<tr><td colspan="2">Yoruba</td><td colspan="2">1</td><td>8.3</td></tr>
<tr><td rowspan="5">Religion</td><td colspan="2" rowspan="3">Muslim</td><td colspan="2">8</td><td rowspan="3">66.7</td></tr>
<tr><td>Male</td><td>Female</td></tr>
<tr><td>3</td><td>5</td></tr>
<tr><td colspan="2" rowspan="2">Christian</td><td>Male</td><td>Female</td><td rowspan="2">33.3</td></tr>
<tr><td>2</td><td>2</td></tr>
<tr><td rowspan="2">Denomination</td><td colspan="2">Catholic</td><td>1</td><td>1</td><td rowspan="2">8.3</td></tr>
<tr><td colspan="2">Pentecostal</td><td>1</td><td>1</td></tr>
</table>

Table 5.1- Demographic Characteristics of Participants

5.1.1 Age

There was a difference in the age range between male and female participants. While the age range of female participants selected for this study was between 18-49, that of male participants was between 18-56. This is because, according to NDHS (2013), although girls in Northern Nigeria start getting married as early as age 15, the official age of consent for both men and women in Nigeria is 18 years and the age of menopause for women is forty-nine, while that of men is approximately sixty-five (65) NDHS (2013). However, considering that the average life expectancy of Nigerian men is 55-56 years (World Bank Group 2018; World Health Organization [WHO] 2018), suggesting that many Nigerian men do not live to their menopausal age, the average life expectancy age range was used to define the age of inclusion for men in the current study.

5.1.2 Gender

Both men and women are represented in the study, and according to State partnership for accountability, responsiveness, and capability (SPARC 2013), men account 41.3 per cent, while women account 40.44% of the population of Kaduna state, suggesting that there are more men than women in the state. However, while recruiting participants for the study, men were reluctant to participate in the study, stating clearly their non-interest in FP issues. Therefore, the researcher recruited the few men who were willing to participate and met the selection criteria for the study participants. Hence the discrepancy in the higher number of women (7) to men (5) in the study.

5.1.3 Marital status

FP seemed to be an issue practised in the open by married women and in clandestine by single women. The single women were thus reluctant to participate in the study because culturally, FP was an issue to be discussed amongst married people. A few single men were willing to participate as well compared to married men. A total of two single women and one single man were included in the study, while the remaining seven were married. These selections gave a representation of the FP perception and information source preference of both single and married men and women in Zaria.

5.1.4 Education

There are widely varying levels of formal education among Zaria residents, and this is evident in the educational profile of the respondents. Free education is offered by Nigerian state governments up to secondary school leaving age (High school), which may explain the reason most participants in the study had attained this level of education. As earlier stated, Zaria has a high concentration of higher institutions in Kaduna state and settlements; hence, the researcher purposefully selected participants with different levels of education to represent this phenomenon. As Previous studies have revealed correlations between educational attainment and the adoption of FP (Ajaero 2016; Bajoga et al. 2015; Okigbo 2015), the researcher was mindful of the need to investigate any apparent links between educational qualification as an object influencing the peoples' perception of FP (Moustakas 1994) and Identifying any patterns in the peoples preferred sources.

5.1.5 Employment

The respondents are employed in various range of occupation. Seven women participated in the study; One was a full-time student, and part-time petty trader another was a government worker, while the other four female participants were housewives/petty traders[8] (prevailing socio-economic activity serving low-income population), only one of the female participants is unemployed. However, the women who were petty traders majorly used their culinary skills at home to make edibles for sale (baking, frying bean cakes and cheese), these edibles did not yield substantial profit. Their tax-free earnings were calculated to be approximately three hundred Naira per week on average (N300 on about $0.75). For this reason, the women were categorised as low-earners: a characteristic reflective of

[8] Wholly owned small business that they run from their homes, such as selling of handmade edibles (bean cakes, groundnut candy and locust beans).

patriarchal cultural norms in Northern Nigeria, where it is commonplace for men to be the sole breadwinners for their families. This also gives them autonomy in decision-making, even on issues concerning women's reproductive health (Duze and Mohammed 2006; Hellandendu 2012; Makama 2013).

Two of the male participants are farmers (subsistence farmers), one was a trader (sold female fabric) while another was a student. Only one of the male participant's was a government employee. All other male participants except the student and government worker earned on average about $15 (N5,384) per week, which is lower than the $20 per week minimum wage in Nigeria (British Broadcasting Commission [BBC] 2019).

Based on this finding, it can be argued that the men and women in rural Zaria are typically low-income earners (Kandala et al. 2007) and the majority of men are subsistence farmers while most women are petty traders (Ogundari 2013). The men were, however, higher earners than the women.

5.1.6 Ethnicity

Three of the male participants are Hausa, while the Christian male participant belongs to the Jaba ethnic group and another a Yoruba[9] Muslim. The former represented the men in the Christian community in Zaria while the latter represented the male migrants. For Example, the Yoruba male participant was between the age range of 37-46, Muslim and married to a Hausa woman. He had moved to Zaria from the South-West of Nigeria since he was ten years old. Considering the location of several higher education learning institutions in Zaria, owned by the Federal Government of Nigeria, it was significant for this study to consider the diversity of the population, to ensure that the perception of FP from various rural dwellers in Zaria is captured (Moustakas 1994b).

[9] The three major languages in Nigeria are Hausa, Igbo and Yoruba. While Zaria indigenes speak Hausa, some of the immigrants are Igbo, Yoruba or other ethnic groups.

5.1.7 Religion

Though Zaria is a Muslim-dominated area, Christianity is also practised amongst some Zaria immigrants and people from Kaduna-South in North-Western Nigeria. For Christians, the predominant denomination is Roman Catholic, the others being the various Pentecostal churches. Religion has previously been identified as having a significant influence on FP practice (Iliyasu et al. 2010) and, in this case, it was essential to provide an insight into how religious practices influence men and women's IB and determine their preferred advice-givers, as this was a significant contextual factor (Moustakas 1994a).

5.2 Information needs of Rural Men and Women

There was a discrepancy between the information needs identified by men and women in the area of study. While men mentioned their information needs to include issues of politics, government inclusion of rural men in national activities, job opportunities, information on HIV/Aids and sexually transmitted diseases, women expressed information needs on childcare and nutrition. The excerpt shows the various information needs of men:

One farmer between the age range of 37-46, who described himself as a Muslim, identified "the government's free distribution of fertiliser" as his most crucial information need, adding that his only concern was that he wanted his children "to help me on the farm". This respondent showed his disapproval for FP, considering his need for a large labour force for food production for his household and commercial purposes.

Another trader between the age of 18-27 who identified himself as a married Muslim expressed "the prevention of HIV/AIDS and sexually transmitted diseases". As significant information needs in the community, he further emphasised the need to promote the use of contraceptives among people involved in unmarried sexual relationships "to prevent unwanted pregnancy in relationships outside marriage". This participant also believed that unwanted pregnancy is a situation experienced among unmarried couples. Hence FP information was a need for men involved in extramarital affairs or singles.

Based on this quote, it can be argued that men understand the importance of contraceptives in preventing unwanted pregnancy, but their definition of 'unwanted pregnancy' is different to that which might be applied by women and in other contexts: i.e. it relates explicitly to cohabitation and extra-marital relationships. There is, therefore, a need for FP information which emphasises its benefits in marital, as well as non-marital, relationships and encourages its use among couples in the appropriate content and format. 'We' was often used by the men "we need information about" (IDI 4) to identify their information needs. It suggests a collective sharing and use of information by men similar to Emele's (2018) findings in South-East Nigeria.

Contrary to the information needs of men, women (both married and single) mentioned proactively searching for information concerning maternal health, childcare, and weight loss.

One female respondent with an undergraduate degree, between the age range of 34-41 although unemployed stated "information on how to continue looking attractive after childbirth, avoid weight gain and how to take good care of children" were essential information needs, emphasising that weight gain made a woman look unattractive to her husband "your husband will likely get a second wife".

The married women believed adding weight could make their husbands marry a second wife (polygamy is allowed in Islam); it is usually not a pleasant situation for the women. On the other hand, one single participant between ages 18-25, identified herself as a Christian and a door-to-door trader in women scarfs, she identified "information on weight loss" as her most important information need, further stating that her fear with the use of FP is "it makes women fat".

Northern Nigeria is similar to Turkey because marriage is an important aspect of culture regardless of one's achievements (Ay et al. 2009). However as much as women wanted information on the prevention of weight gain, some of them believed the use of contraceptives was likely to cause weight gain, and this made some of them avoid FP information because it was likely to have negative influence of their goal to remain slender. The participant's response concerning FP information needs points to a need for appropriate information about the side-effects of FP.

An unmarried participant who identified as a Muslim also mentioned a need for formal and expertise advise concerning the side effects of FP. In her words, "I need information about causes of infertility, side-effects of injectables, implants, and pills". She also mentioned her need for "information from medical personnel on whether or not FP causes infertility", expressing some form of doubt about her information source "because my mother says it does".

The respondent shows that her FP information source is her mother, but she also expresses some form of dissatisfaction about the content of the information provided. Thus, points to an information need on FP from an expert's point of view. Her statement could also be interpreted to mean available information sources on FP may not be the most trusted information source. This pattern is also observed in a married Muslim female. She identified as an unemployed degree holder between ages 34-41 who expressed "access expert advice from hospitals" as her significant information need, emphasising that this may increase her chances of utilising FP "my husband may allow me to use modern contraceptive". This suggests women require FP advise from experts, emphasising that although men may show negative attitudes in terms of permitting their wives to use modern contraception, they may be potentially willing to listen or even allow their wives more freedom and independence to use FP, if they gain expert advice explaining or contradicting information they may have acquired from family members (Ay et al. 2009).

The older women suggested that malnourishment among children was a problem in rural areas. "Women need information about how to take good care of their children to prevent malnourishment". She added the importance of this information need as "children keep suffering from kwashiorkor while some are skinny" and reiterated the information for women "to look attractive after childbirth" was stated by one of the oldest female participants, between ages 42-49 who is a petty trader (fries bean cake) and identified as a Muslim.

This statement suggests that, in a typical Hausa society, a woman's primary duty rotates around her husband, children and then her health. Within the Hausa context, the man is the family provider, but the woman is responsible for childcare by preparing healthy meals and medication when they are ill. She is also required to look and remain attractive for her husband by remaining slim, as the typical northern woman is slender (Yusuf 2005). The Hausa culture can, therefore, be interpreted to have some elements of FP (Renne 1996) because a woman needs time to look attractive and remain fit. Inadequate child spacing makes this goal almost unachievable. Hence a need to include important aspects of culture in FP information to promote its use.

5.3 Rural Men and Women's Perception of FP

It was revealing to find out that the majority of the men in this study, regardless of their religion or ethnicity, perceived FP as a form of child spacing which is discussed between a husband and a wife. They, however, did not think it should be a method of determining the number of children a couple should have except for the single male participant.

Two of the Muslim farmers, one Christian government worker and one Muslim student identified as a single man, described FP as a method of birth control used by a woman to prevent pregnancy within short intervals through adequate 'child spacing' to ensure better health for the mother and child. This is evident in their perceptions of FP.

One of the Government employed male participants described FP as "the coming together of husband and wife to discuss a form of spacing between births, within specified time intervals to promote better health for the mother and baby" further accentuating his disapproval for "the popular misconception about FP specifying the number of children one should have". For this participant similar to the other three male participants, FP meant child spacing for better health of the mother and child, arguing that provided there is adequate spacing between births, FP is practised regardless of the number of children.

For other men, FP offered the prospect of health benefits for the mother and aid for promoting the orthodox religious and cultural upbringings of their children;

As one married Muslim farmer put it: "FP is a process where a man and a woman come together to talk about the spacing of their children to enable appropriate breastfeeding and give the child proper upbringing religiously and culturally."

The older male Muslim respondent, a farmer perceived FP as a practice with economic benefits "the ability of a man to provide for his family" emphasising that the ability of the household head to meet his family's needs meant FP regardless of the family size. "Providing for the household means family planning and not the number of children one has". This participant also points a relationship between planning a family and the religious benefit of being prosperous. "providing for one's household attracts blessings from Allah". Given his Islamic faith, the inability of a man to provide for his family may attract some form of punishment from God (Yusuf 2005). The age of the participant, coupled with life's experiences, maybe a possible influence in his definition. Again, in the Hausa culture, the father is the head of the family, and any visible lapses in his ability to provide for his family make people perceive him as an irresponsible head (Duze and Mohammed 2006). Again taking into account, the men's perception of FP, a relationship claim between religion and FP can be said to exist, moving from the narrow perspective of the responsibility saddled by religion on a man to ensure good health for his wife(s) and children to the broad obligation of providing for the family. FP information also needs to consider this current view.

An unmarried Christian male participant age between 18-27 who is an undergraduate, described FP as a practice discussed amongst couples. He said, "FP is when a husband and wife discuss and agree on the number of children they intend to have". He added that his religious belief permitted him to request the number of children he wanted from God the giver of children. "we tender our agreement to God". His motivation to use family FP was centred on its economic benefits "to prevent financial constraint", suggesting that gaining FP information from a medical expert could prevent adverse side-effects of FP. " We can consult a doctor afterwards to choose the most suitable method."

This response shows that the respondent believes it is God who gives children but believes that man can control this occurrence and FP is a method a family can use in achieving their desired family size. His perception of FP includes some socio-cultural and economic views, shaped by his interaction with his living (culture) and working environment (education) (Robson 2013). As reflected in Okigbo's (2015) findings, there is often a correlation between higher education and positive attitudes towards FP. Alternatively, the disparity between his perception and that of other married male subjects might be interpreted as a reflection of his single status – his limited life experience of marriage and childbearing (Moustakas 1994) leading him to associate FP with collective decision making.

Overall an important pattern identified among the male respondents was the reoccurrence of 'women and children' in the men's definition of FP, suggesting that men perceived FP as a beneficial practice for the identified group.

During the analysis, it became clear that women, regardless of their marital status, ethnicity or age, perceived FP as a method used for child spacing, to determine the specific number of children a couple can cater for economically and ensure good health for the mother and child.

This is evident in a Muslim female primary school holder's vocalisation;

"FP provides a woman with information on the required period of spacing between births and the limit of children one should have for the health of the mother and the child". She is within the age bracket of 18-25 and expressed her willingness to further her education, adding that FP has educational benefits: "With FP I can go back to school".

Another female Christian participant, a government employee who has a degree, perceived FP as a woman's concern, arguing that it was "a method a woman particularly uses to have the required number of children". For her, the significance of FP was its economic benefit to the family, with the woman, primarily responsible for assessing the financial situation of her household. "The woman should give birth to children her husband's capacity can carry," she added.

Although the unmarried women interviewed shared the same pattern of ideas about the benefits of FP in ensuring child spacing and providing better health for the mother and child, they believed that FP is not for single women.

This is demonstrated in the following remark by an unmarried Christian woman: "I am not married, but to me, FP is". In the case of the female Muslim participant she perceived FP to improve the socio-economical welfare of a family, "the number of children a man and woman agree to have should meet their financial status for adequate childcare", emphasising again that "FP is not for single women".

Two conflicting discourses, therefore, emerged in analysing the single and married women's responses to the question about their perception about FP. The married female participants in the study described FP as a practice which was the responsibility of women, as demonstrated by a married, tertiary educated Muslim participant's comment that "FP is a woman's" and a Christian government employee's that "the woman's decision on the number of children to have should depend on their financial strength". By contrast, both unmarried women and men (like some married male participants) described FP as a practice that should involve both men and women. The response of an unmarried Muslim woman and a male Muslim participant both illustrate this. "A man and woman come together and agree on the number of children, spacing", said the woman, while the man said: "FP involves a man and a woman coming together to talk about."

This existing similarity between the unmarried women and men's perception of FP in contrast with that of married women suggested a feeling of equity in decision-making exists in courtship. As one single woman put it: "My man and I talk about how many children we want to have as well as the spacing". However, the married women's responses suggest that any such equity tends to change after marriage, reflecting the patriarchal norms of Northern culture (Makama 2013).

Age

The participants within the age range of 42-49 (categorised as the older generation in this study) invariably saw FP as being for married couples, not wives alone. Kulu, the older married participant in her late forties, described FP as:

"a system of child spacing for married people, to be discussed by a wife and husband and not unmarried people".

The fact that this respondent was so attuned to this "system of child spacing" at a young age underlines the existence of an ingrained cultural norm encouraging joint FP decision-making fostered by Hausa culture and the Muslim religion (Yusuf 2005).

5.4 Starting a Family: Preference for advice givers by Gender

The first point of contact for men when they considered starting a family was their father, elder brother or an adult male:

The oldest male participant, a farmer and Muslim, recalled informing "my elder brother" about his decision to get married, adding that "he is the head of our extended family" and culture demands he is informed first, for any advice and arrangements to meet the bride's family.

Another male Christian, a government employee's first choice for advice to start a family; "I told my father", highlighting the significance of the father figure in the home; "there will be no marriage if my father disagrees with my intention to start a family". Marital rites and payment of dowry (bride price) in the Muslim religion and Northern culture is the role of men (Duze and Mohammed 2006). Women are ideally not involved, although, in Northern Christian families, the mother is informed, she has no cultural role to play. Mothers are primarily involved in praying for the success of the wedding and catering (Doherty 2004).

One Male farmer and Muslim within the age of 18-27, informed his 'father' about his decision to start a family and his father "….invited the village head", as going with the village head to the bride to be's family is symbolic" because his judgement is trusted, and acceptance of the proposal by the bride's family is guaranteed" (IDI 4).

Village heads (Mai Unguwa) are respected personalities in rural settings. A direct translation of their title means 'the community owner'. They settle disputes, join marriages and divorces, and are respected and influential members of the rural community to whose wisdom other members, especially men, give credence (Hill and Polly 1972).

The women identified their mothers, sisters and female friends as their first point of contact. A Christian female participant educated to degree level said "My mother was my first point of contact" and she chose her mother because she trusted and believed her to fulfil the religious obligation of a mother to pray for a perfect home; "to pray for me and advise me about marriage."

While another Muslim petty trader informed “her elder sister” as her first point of contact, pointing out her trust and rapport as her motivation; “ her instincts are accurate, and we have good rapport”.

Excerpts from the women’s interviews show that they are closer to their mothers than their fathers and derive comfort from the knowledge that their maternal role models will pray for them.

In summary, both men and women relied on informal interpersonal sources for approval of and advice about starting families, but while men put more faith in older male community figures, whether directly related to them or not(whom they viewed as symbols of authority), women relied more on other women – and, specifically, their mothers.

5.5 Family Planning Information Sources Available to Participants

Men and women revealed informal (interpersonal or group communication) sources to be their primary source of FP information. Although a few had formal sources (health providers and media).

Many of the participants preferred the word of mouth which they stated was significant in achieving satisfaction by asking questions and getting immediate responses that add to the credibility of the source;

“during our male discussions in the evening, anyone with questions on FP brings it, and we get an immediate response. We can see each other’s faces, so it prevents deception” (IDI4; male; Muslim; trade).

Information Sources	Men (5)	Women (7)	Religion (Christian/Muslim)	Marital Status
Family and Friends	5	7	Both	Married and Singles
Family and Relatives	Male	Female	Religion	Marital status
Educated Community Members	2	3	Muslim	Christian
Traditional Medicine Men	2	3	Both	Married
Village Head	5	-	Muslims and Christians	Married
Religious Clerics	4	0	Both	married
Men's Groups	3	-	Both	Married
Women's Groups	-	1	Christian	Married
Group leaders	3	2	Both	Married
Patent Stores	2	5	Both	Married and Singles
Radio	3	2	Muslims	Married
Television	-	-	-	-
Newspapers	1	0	Christian	Married
Internet	1	1	Christian and Muslim	Singles
Health providers	1	4	Muslim man and Both for women.	Married

Table 5.2 Family Planning Information Sources

In Table 5.2, men and women describe their various information sources on FP:

The primary information sources of both men and women were informal sources (family, friends and relatives), and they preferred word of mouth through interpersonal communication (private chat) and group communication.

One of the female Muslim participants who have a Secondary school leaving certificate identified the health facility as a source of FP information; "but you can go to the tertiary health facility to get information on family planning". She, however, expressed her fear of side-effect; "some of these implants and injectables cause infertility and cancer". She believed more appropriate and complete information could be obtained from the health centre.

Two other participants, a married Christian male and Muslim female, identified their information source on FP to be their grandmothers. The male is convinced that his grandmother has the knowledge and long term experience with side-effect free traditional FP methods; "she knows a lot about natural remedies for child-spacing and they have no health effects" (IDI 4). The female Muslim petty trader, on the other hand, identified her grandmother as a traditional FP information source and service provider; "My grandmother makes FP herbs".

These quotes demonstrate the relevance of the older generation in providing FP advice and services in rural communities. It also shows that FP is a significant cultural practice (Renne 1996), and their information sources are informal.

Majority of the men (3) also attributed their information source to group discussions:

The Yoruba male migrant, a trader and Muslim vocalise this;

"When men gather in groups to discuss, you hear them narrating their FP experiences". Men in the North have meeting spots in the village square or close to their home where they discuss their daily activities at dawn.

All 6 participants; four male and two females who owned radio's recalled listening to FP programmes on radio:

This view is summed up by one of the Hausa Muslim farmers between ages 47-55: "Sometimes on the radio, you hear FP in Hausa, on radio health programmes" He stated his concern about the inconsistency of the programmes; "there is neither a specific day nor time for airing this programmes". The Hausa female respondent within the age of 18-25 further asserts this claim; "…. I stumble on FP programmes on the radio more often than not".

All six participants demonstrated and pointed at the inconsistency in the pattern of the radio programmes. None of the participants was able to mention timing and days scheduled for the programme, although the Muslim farmer made mention of coming across FP programmes on " radio health programmes". This suggests that there are currently very few or no programmes focusing on FP, and this needs to be investigated.

The religious clerics were also identified as information sources by four male and one female participant, identified as a Christian and Catholic. The Muslim farmer with Islamic education identified the religious cleric as his primary FP information source; "I ask the Imam (Religious cleric)". Likewise, the Christian Catholic female with tertiary education also identified the Catholic priest in the course of a marriage programme organised by the church as her FP source of information:

"During my marriage course, the priest taught about the Billings ovulation method of FP" (Molly: Female: Catholic).

Judging by this response, the Islamic faith and Catholic church can be said to be offering their own 'unofficial' FP programmes - which, given their well-documented disapproval of contraception, they used to promote alternative methods of FP to their followers. These suggest a need for FP interventions also to produce complete and timely information on the use of modern contraceptives to target audience at any given opportunity through community programmes.

However, the unmarried student, a Hausa Christian man, identified the use of formal sources of information; " I went to the health centre for FP advise". He also added that he was given some "pamphlets to read and return". He emphasised that he was able to access FP information at the health centre because; "I am planning to get married" otherwise he believes; "I would have been denied access".

The FP information source for the Government employee, Christian Male participant of the Jaba ethnic group, was revealed to be the print media; "Myself like many men in this area read the newspaper" the cost of the newspaper made it inaccessible to rural men "I don't buy, I pay the vendor twenty Naira (N20-$0.06) to scan through" , When men were asked for the source's, they will prefer if the information were to be passed across in their community, they stated:

"You can use our village heads" (IDI 5; male; Muslim; married; secondary education; Hausa)

"Our football coach" (IDI 4; male; Muslim; married; Yoruba; trader; secondary education)

"Our imams, or village head and we will relate it to our women". (IDI 2; male; married; Hausa; farmer; Islamic education).

"The village head" (IDI 1; male; Christian; unmarried; student; college)

"For women, use the men, but for men use the village head and religious clerics" (IDI 3; Christian; male; government worker; Jaba/Hausa; tertiary education)

However, a Muslim farmer within the age range of 37-46, suggested "Radio can be a good source of information for men" because "we use the radio on our farms to listen to news" while suggesting that older women will be useful information sources for women " women listen to their mothers or grandmothers".

The local herb hawkers (prepare medication from herbs) and the traditional medicine men were also identified information sources by one male and two female participants, and they believed in the efficacy of their medication and charms: A female Muslim trader aged between 26-33, represents this view:

"The medicine man has given me a ring before, and when it broke, I became pregnant".

An interesting finding in this study was that men were not wholly dismissive of FP information as they revealed their preference for traditional sources, which they thought had little or no side effect. A secondary-educated male Muslim farmer, aged between 37-40, identified "herbs" as a "natural remedy for FP" that "works with no side-effect".

On the contrary, the information sources for unmarried participants and women who have a university degree were semi-formal. In the case of singles, they preferred patent stores or the internet as explained by a Muslim-unmarried-female; “I find information on a women’s group on facebook and the patent store sometimes”. Another unmarried Christian female participant reaffirmed singles’ preference for semi-formal information sources, highlighting that “…to avoid being interrogated, the internet or patent stores are my information sources”. The cultural practice in Zaria prevents the singles from visiting the government-owned health facilities for FP information because the society upholds the cultural norm of celibacy before marriage, hence will rather believe that singles are not sexually active.

Another interesting finding was with one of the married Christian woman, (a government employee), who revealed she attended “the health facility”, and did not require her husband’s consent because she was able to afford to do so financially without having to seek his support. “I do not need money from him, so he does not have to know,” she explained.

This response indicates that some women who do not depend on their husbands for financial support feel empowered enough to make decisions about their reproductive health without the consent of their partners. This suggests that levels of financial independence may be a significant influence on women’s autonomy and even willingness to seek advice in secret, in some cases (Anderson and Eswaran 2009).

After interacting with friends, family and relatives about child-spacing, many women stated that they were advised to visit the health facilities, but men did not support this form of action. This situation is explained by Zahra, a married petty trader, with secondary school education between the ages of 26-33:

“Considering that traditional methods of FP have been ineffective for me, my mother advised me to visit the primary health facility, but my husband prevented the visit,” she explained. This experience was similar to that of another married Muslim woman (also a petty trader), aged between 18 and 25, who said: “When our families are unable to provide effective natural remedies they advise us to visit the hospitals”, adding that “my husband says no“ - a negative attitude she attributed to “his need for more children”.

From the vocalisation of these participants’ FP information sources, it appears that women are more likely than men to visit official health facilities for FP information, with younger women (18-33) often following their elders' advice in accessing these channels in addition to more informal ones, by contrast, the men appear to be dismissive of the health facilities. While Peter et al. (2008) attributes this attitude to men's responsibility to bear the cost implication of these visits, Abdulraheem (2007) suggests a relationship between this behaviour and higher prevalence of illnesses amongst women due to childbirth and childcare labour (Manierre 2015) and Graff and Bremmer (2014) suggest religious and cultural practices - demonstrating the existence of a marked gender disparity in FP IB.

Thus, the primary FP information sources available can be said to be informal, with husbands sometimes limiting women's access to FP information from health facilities due to their unwillingness to give consent.

5.6 Participants Preferred information Sources

Following on from the low adoption of FP, despite several initiatives, there was a need to identify the characteristics sort in information sources by rural dwellers in order to understand their preferences. There was gender disparity observed in the source preference and characteristics sort.

The preference for information sources by the women was observed to be influenced by accessibility, rapport and experience, and trust determined credibility.

Experience

The experience of older women or other female members of society influenced the source preference of women in this study. One of the female petty traders, a Muslim by faith stated, source preference for her is determined by previous or current use of FP by the individual; "my friend told me what she was using for birth control". Emphasising that her trust for the information carrier; "she is my friend, I know she will not lie to me" motivated the use of information provided, this was similar to the responses of other female respondents.

Two men also showed experience as an influence on their preference for specific sources. The farmer with Islamic education identified "I asked my mother for FP advice” adding that he believed the information provided by his source because “she used to be a traditional birth attendant”.

Accessibility

Some women preferred patent stores because they could pay for medication and services by instalment in contrast with the government health facilities where one is expected to make payment before service. Kulu, a Muslim trader between the ages of 42-49, shares her experience:

“The medicine man in my area gives medication, and you can pay by instalment or by the end of the month.”

She added that her problem with the health centre was its expectation that “one must make full payment for medication and services”.

The low-income status of women in rural areas was shown to influence their preference for sources which they found cost-effective due to payment plans. This made them able to avoid requesting lump sums from their husbands, which sometimes ended in their refusal to provide not only financial support but also a denial of consent to access such services. Women need empowerment through the building of vocational centres to help them develop further their culinary and other skills likely to increase their production quantity and make them financially independent.

For some men, the distance of the information source from their place of residence determined their preference. The Christian male government employee attributed his FP source preference to proximity and free services:

“The place where men converge at dawn to catch up is about six minutes’ walk from my house. I take my FP and sexual questions to the group, and consultation is free”.

This suggests that, for some rural men, the financial cost associated with accessing FP advice is a significant factor in influencing their personal disengagement with FP and a factor impeding the engagement of their wives.

Three female participants also attributed their source preference FP to proximity from their place of residence:

"Patent stores are close by" (Hafsa; 26-33; unmarried; Muslim)

"My best friend and mother live behind my house, and it makes it easy for timely information" (Tandatu; 18-25; married; Muslim; petty trader).

Trust and Confidentiality

For the single participants, a male and two females, confidentiality was a significant factor influencing their source preference, the response of one of the single Muslim participants represents this:

"If you do not want anyone to know you are sexually active, I will recommend the private patent store".

The unmarried male Christian also expressed a similar opinion about confidentiality, describing how "The patent store owner in my area is amiable once you speak to her - she confidentially assists".

Following on from the evidence in the responses, due to cultural and religious belief surrounding 'pre-marital' sex, it was important for the singles to access FP information in private, without fear of their information needs becoming public and the society viewing them as deviants "outsiders" (Chatman 1996).

For some women, expertise formed their judgement for source preference. Hence motivating use of accessed information: Zahra, a married-Muslim, petty trader with secondary education represented this view indicating that although "some implants and injectables are said to cause infertility and cancer" she would prefer advice from an expert; "some people do not react to certain methods, and the health centre provides this compatibility information" .

This demonstrates limited access to detailed information about side-effects of various methods of modern contraceptives and the mitigation role of compatibility examination or tests, which makes possible the dominance of myths and misconceptions about family planning to thrive in rural communities.

Authority

Although experience, trust and accessibility influenced men's attitudes towards FP information, the quality most often attached to their favoured advice-givers (and forms of advice) tended to be 'authority'.

One male-Christian respondent made it clear that authority guided his preference for print media "I prefer newspapers because the name of the article writer is printed" adding that someone can be held accountable; "an article writer/newspaper producer will be held responsible for misinformation".

The above statements made by men shows that men choose specific sources over others for some form of authority they carry.

For other male participants, the village head, football coach or religious clerics who symbolise, authority, trust and credibility were perceived as reliable and trusted information sources, and these qualities motivated information use. The excerpts show evidence of men's information source preference:

The Muslim farmer between the ages of 47-55 said "……We respect and adhere to information passed across by the village head because they understand what it takes to be in a leadership position. Some of us are village council members or aspire to be", and men who aspire to be respected in their household and community have to respect authority; "we have to learn to listen to our head so that others will listen to us".

In the case of the Christian-unmarried-male, he believed that the village head passed across significant information; "Whenever there is important information to be passed across, the village-head converges us". Pointing that the head is a symbol of intelligence and diligence whose words should be put to action " He is our head; he knows what he is doing so we listen".

The Christian-male, between the ages of 28-36 preferred information from experienced persons; "My grandmother told me about FP herbs" with an understanding of cultural practices; "she understands cultural methods".

Muslim male participants also mentioned the religious clerics. The Muslim migrant (Yoruba) between ages 18-27, from the south-west region of Nigeria, vocalises the men's perception of religious clerics; "The imams, are preachers; Godfearing and honest" emphasising that in addition to the qualities of good preachers " they quote hadiths (verses) from the Holy Book to make a point". The practical application of the words from the 'Holy Book' (a symbol of authority) to contemporary issues preached by religious clerics was significant to men. It served as an indication of God's approval or disapproval of specific practices, contributing to their perceived credibility for the preachers.

The Imams (religious clerics) and village heads are among the most influential figures in the Hausa community. As male members of a patriarchal society, they also hold a form of intrinsic authority themselves, which may help explain why their IB was so heavily influenced by other (albeit senior and, therefore, *more* powerful) men. This echoes the similarly homophilous behaviours identified in studies by Rogers (2003) and others and could explain their preferences for particular sources.

Both men and women from findings demonstrated their preference for informal information sources. However, the contrast in their source preference was evident in information source characteristic; while men were revealed to seek and use information from more organised, trusted and authoritative sources, women's preferences were guided by trust and experience.

Women also made suggestions on channels of communication they thought would be more useful to reach men and women in the community, religious clerics and the village heads were popular suggestions.

However, a Christian- Catholic, and government employee within the age range of 34-41 suggested the pub for northern Christian men; "Our husbands are in the pubs more often in the evening". She suggested that this was an important place to sensitise men on FP because; "they are relaxed and happy there and may listen".

Men also made suggestions for the best ways to reach both women and men:

The Muslim-farmer within the age bracket of 47-55 suggested that; "Midwives can talk to women and their husbands during childbirth" his suggestion was on the premise that "it is one of the few times men and women are found together at the hospitals". He also suggested "the Islamic school for women" as a suitable medium for disseminating FP information because "even women living in isolation are allowed to attend this school". The quote reveals the speculation of reaching a wider female population with FP information by using religious clerics because the teachers in these schools are the Mallams (male religious clerics).

The Christian-married male participant also suggested "Christian women can be reached through, pastors, priests and women fellowship leaders". He believed they were appropriate sources because "women are religious and will listen to them."

The responses of men as well as their suggestions on sources to reach women further reaffirm the interpretation that men preferred sources in power. This makes a profound revelation and indicates a need to include religious clerics, midwives and village heads as information sources in the promotion of FP amongst men, considering the decision-making role ascribed to men in this community and their acceptance of information from the sources above while women can be reached through the older and experienced womenfolk in the community.

A female Christian participant also suggested the use of public address systems in rural communities;

"The loudspeaker can be used on specific days of the week to preach FP", suggesting that information will be made available to children, men and women despite their busy schedule; "Women are always busy in the markets or at home, with the public address system everyone can hear".

In rural communities, it is a common practice for religious clerics and herb hawkers to use public address systems to preach or market their products. The respondent suggests that FP can also be addressed in the same way.

The major sources of information for men and women share similarities while discrepancies in preferred sources cut across age, religion and marital status. Interpersonal and group communication, which majorly connotes informal sources are the most preferred information sources in rural communities for both men and women.

5.7 Understanding the role and purpose of Family Planning (Motivating Factors).

Economic Motivation

In this study, it was essential to understand the factors which motivate men and women in rural areas to use family planning information. A significant finding was that both men and women were motivated for economic reasons, which was centred around the ability of a man to provide for his family, which is both a cultural and religious obligation.

The Christian-government employee, a married man, demonstrated his motivation to adopt FP "to prevent having children one's earnings cannot cater for."

The oldest Muslim male (47-45), a farmer identified his motivation to adopt FP to " enable a man to provide for his family".

Zahra, a female Muslim trader also revealed; "my husband was struggling to feed the family, but forbade me to use FP". Hence she developed the need for FP information; "I asked my mother how to delay childbirth".

The responses of men and women to their perception of FP demonstrates the belief amongst rural dwellers that FP could improve the economic status of the family, which they stated was likely to motivate their use of FP information. Considering that they believe that there are benefits to adopting FP, this finding shows inadequate circulation of appropriate FP information in rural communities to counter existing myths or misinformation,

The women revealed they were mainly motivated to seek FP information to promote better health for themselves, their children and improve their socio-economic welfare.

For Kulu, the Muslim-trader within the age bracket of 42-49 and a petty trader, " FP helps a woman bake more, make more profit and care for her children" she was convinced that a woman would have more time to organise and achieve her goal "unlike when one has to go through morning sickness, and regularly nurse children due to inadequate spacing" .

Other women who had primary education like Tandatu, a Muslim female within ages 18-25 said; "FP helps a woman pursue an education and a career" she also believed it made the woman a decision-maker in the home by "contributing to the family financially".

Health Motivation

Some of the women also perceived the FP as practice ensuring good health of a woman, Molly one of the married Christian participant and Hapizah a Muslim female participant, both with tertiary education represent this view;

"……, my father told me that, women who give birth within short intervals are prone to cervical cancer" (Molly).

"the doctor advised my sister-in-law to desist from child-bearing after her sixth child; otherwise she would die" (Hapizah).

These excerpts show an understanding of women to be at higher risk of experiencing health issues in the absence of FP. This explains the willingness on the part of women to seek information on FP compared to men, demonstrating that access to information with compelling content will help women in dispelling the negative notions propagated about FP. However, in the process of searching for information, they sometimes come across the adverse side effects of FP first;

"I thought to adopt FP, even though my mother always spoke about side-effects" (Molly; Christian; government employee; 34-41).

One of the Muslim-single female respondents also vocalised her experience with information concerning the adverse side effects of FP;

"I wanted to know if FP causes infertility because my mother said it did especially injectables".

There is a need for both informal and formal information on FP in rural areas because the unofficial sources are the first point of contact. Thus a need to sensitise informal information sources with appropriate FP information.

Preventing unwanted Pregnancy

Among some of the married men, single women and men the theme of preventing unwanted pregnancy was identified as a motivation to use family planning, to prevent the disgrace and notion of being an outsider in the community by acting contrary to societal norms (Chatman 1996).

The Christian unmarried female participant also pointed out her motivation to use FP to **"**prevent unwanted pregnancy" to avoid being ostracised "my church frowns at it, my mother will disown me".

One of the married Christian male participants narrated a third parties experience "My married friend impregnated a woman he was not married to, and it was disgraceful. It got to the village head, and it motivated my search for information on preventing STDs and pregnancy".

The quote shows some form of indecision on the part of men, while some men are likely to prevent their wife(s) from using any form of contraceptive, they emphasise its importance in preventing unwanted pregnancy in cohabitation. This points to a lack of information on the term 'unintended pregnancy'[10] amongst married couples but, suggests subconscious approval of FP by men and possible willingness to accept male friendly methods of FP.

Age

An observed pattern in the course of the interviews among two mid-aged (34-41), female respondents; Molly a Christian (employed) and Hapizah, a Muslim (unemployed) both university graduates, was the possible influence of age as a motivating factor in rational decision making on reproductive health:

"I got married at 15; I was giving birth almost every year, my mother tried speaking to my husband; I almost got divorced. I do not use anything now, but if I find a suitable method I will use it without the knowledge of my husband." (Hapizah).

[10] Unintended pregnancies that are mistimes, unplanned or unwanted at the time of conception (WHO 2017)

"In early days of marriage I felt compelled to inform my husband about everything, but now I know better because, I am the one who is involved in pregnancy and childcare, sometimes financially" (Molly).

Again, in the Northern culture and religion, the ability of a man to provide for his family with no input from his wife increases his autonomy (Duze and Mohammed 2006). However, from the narrative of the Christian female participant "I am the one who is involved in pregnancy and childcare, sometimes financial provision as well" suggests that women are not only involved in caring for the children physically but also contributing financially to the well being of the family. This quote suggests that some men abscond the duty of providing for their household, and overtime the women develop the boldness to practice FP in secret (Emenike et al. 2008; Murshid 2017). Manierre (2015) also explains that childcare labour may also be one of the reasons for women's search for health information.

5.8 Inhibiting Factors to IB on FP

To understand the low use of FP information among rural dwellers, it was significant to identify factors discouraging information use and unfavoured information sources. There were discrepancies in the factors identified by gender and marital status.

Cultural and Environmental factors

Cultural beliefs and environmental factors were inhibiting factors identified by single females and some married women in the study.

Doroti, a Christian and Zaria migrant, indicated that the environment "…Zaria is a small town hence easy to link a child to her family", pointing out she was uncomfortable visiting the health facility for FP information because " I am unable to guarantee that I won't run into someone I know", meaning other community members will get to hear about her information search; "it will become an open secret" .

From the Zaria context, it is a small town, and the people share communal facilities (one major tertiary health facility) and schools, suggesting the people become familiar with one another through interaction in one of the places above. For an unmarried individual in this community, seeking FP information is in contrast with societal expectations and norms for singles, hence such behaviour is meant to be a secret. This is an indication of a need for friendly FP information services for singles, to improve access and use.

The health providers in rural areas are also reported by the singles in the study to exhibit a negative attitude towards single individuals who sought FP information in the health facilities. One of the single Christian male participants within the age range 18-27 narrates his experience:

"the last time I went to the primary health care in search of FP information in print, the attendant asked about my marital status, and on hearing, I was single, chose to ignore my request".

At the government facilities, women were requested to come along with their husbands as proof of consent from the men before FP advice is provided.

Zahra, a married Muslim within the age range of 26-33, expresses the experience of married women who seek FP information; "the nurses ask women to come with their husbands", pointing out that without one's husband; "they will not provide any form of service". The attitude of health providers also discouraged the use of FP information.

It shows that health workers, deny unmarried persons access to FP information, Chatman's (1996) notion of "insider" which establishes that norms and customs define what is significant and insignificant in the world of the insider. Thus, the sense of duty held by health providers to uphold cultural and societal expectations of abstinence before marriage by denying singles access to FP information can be interpreted from the concern of being perceived as outsiders within their community. There is a need to re-train FP providers, while considering and including some aspect of societal norms and mores, to protect health workers from being strangers in their communities. Youth-friendly FP centres will also be a good source of information for the unmarried.

Side-Effects of Modern Family Planning Methods

One of the major barriers to the use of FP mentioned by men is the belief that weight gain is one of the side-effects of FP, making women look unattractive and in some cases increasing the practice of polygamy. This was also expressed by some female respondents.

According to one of the Muslim male respondents, a farmer between the ages of 37-46 his problem with FP is ".... injectables made one of my friends wife who was slim gain much weight" he also believed as a result of this, his friend has become unattracted to his wife and "He may even marry a second wife soon".

The Christian male participant thought that modern contraceptives make women age faster; "your wife begins to look like your mother after that implant is fixed" (IDI 3).

One of the single female participants and three married women also expressed their concern about FP making women put on weight and looking less attractive. Zahra the Muslim petty trader with secondary school education represents this view;

"Men like slender girls but women who use FP become fat".

The perception of the body structure of the Hausa woman is a body that neither increases in body weight nor belly size despite childbirth and the ageing process (Yusuf 2005). This gives a mental construct of how and what a northern wife should look like, which could explain the importance attached to remaining slim. Also, it suggests the influence of patriarchy in the northern culture on the FP IB of women; subconsciously women begin to live to meet men's expectations of their physical appearance to the extent of possibly neglecting their health like avoiding FP information.

In the case of one of the elderly male Muslim participants, his dissatisfaction with FP products and services inhibited his use. This centred around three factors; distrust for health personnel, side-effect and religion;

Distrust; "the recommended FP method by a friend was unavailable when we visited the hospital, but the health personnel convinced us of an alternative method". Side-effect; "my wife bled for several months and still got pregnant," he explained. He also stated his preference for traditional methods, attaching a religious interpretation to all the happenings; "I will stick to our traditional methods to keep my wife alive. Moreover, it may even be God preventing us from using FP".

This demonstrates a wariness with professional services based on a belief or suspicion that health providers, even when trusted by the community members, may not always carry out the necessary checks to ensure that their intended methods for disseminating information suit individuals – potentially leading to wider-scale distrust of the health system. This experience suggests a shift in trust from the service-provider (formal information source) to his friend (informal source), premised on the fact that, if the FP methods promoted by his friend had been available, his wife would have been fine. His testimony also demonstrates the persistence of a superstitious dimension to his reasoning: he believes that God had sent him a 'sign' telling him not to use FP, in the form of his wife's bleeding. This points a need for efficiency amongst FP information providers as well as a need to provide complete information about FP products, including side effects.

The belief that FP causes infertility was revealed to be a popular and significant theme among the men and all the women in this study. Hapizah, the Muslim female, a degree holder, within the ages of 34-41 and Tandatu a Muslim within the ages of 18-25 with primary education, represents the views of women concerning infertility:

"I know someone who used FP after her 1st issue and never gave birth afterwards" (Hapizah).

"I was told by a friend using FP that it increases one's chances of experiencing infection and infertility" (Tandatu).

A married Muslim male and Zaria migrant also narrated his experience with the use of FP, causing infertility:

"My sister used FP after marriage when they thought they were ready to have children the children never came forth".

The Christian male participant who is a degree holder also believes that the use of FP among unmarried 'women' is an act of deviance, likely to cause infertility in marriage:

"most promiscuous girls who use FP before marriage are unable to conceive after marriage" (IDI 3).

Kulu, the female participant within the age of 42-49 and a Muslim, believed FP causes cancer:

"A woman I know used the implant, and she died of cancer".

These respondents' narratives of the likelihood of FP to cause infertility, weight gain and cancer was experience based, although they may not have experienced it directly, someone they knew did, which increased the women's fear of side-effect, providing possible justification to the men's disapproval of formal FP information. Clear explanations need to be provided to enlighten women about the fact that the use of contraceptive may not have been the cause of these negative experiences. These findings demonstrate a demand for medical explanations for rural dwellers to counter the existing perception of side-effects of FP.

Religious and Cultural Beliefs

Religion was a significant barrier to the use of family planning amongst men compared to women. Although there were discrepancies in the reasons of the Christian and Muslim men to have many children, they both pointed out the religious injunction for men to multiply and fill the earth. This is evident in Men's verbalisation:

A Male Muslim with secondary education and a Zaria migrant said; "As the head of the family, if my wife uses FP, her sins will be on me on the last day", stating that the religious expectation of his role as a family head includes ensuring his family adheres to religious practices; "because I am the primary decision maker".

The married Muslim-farmer between the ages of 37-46 with Islamic education, points out "… Islamically we have been given the injunction to multiply", and he believes that regardless of an individual's economic status one can have as many children as they want " because God will not give you a child he cannot feed" suggesting God will provide for them.

In this excerpt, "feed" means the provision and the participant is convinced that because God is the giver of children a child will always be provided for by God, regardless of the family's level of poverty. Again, this is a religious/cultural belief, and it is also essential to state that religious and cultural practices in northern Nigeria are intertwined.

One of the Christian male respondents, who is a degree-holder, made an intriguing statement about the increase of ethno-religious[11] (Salawu 2010) crisis in northern Nigeria serving as a barrier to his practice of FP, stating that "with the everyday religious crisis, if our children are not many who will fight these wars for us". He added that while Christians were becoming convinced to adopt FP, there was no significant fertility decline among Muslim counterparts, suggesting that "with FP the Christian population keeps decreasing while the Muslim population is on the increase".

This quote explains the generally low level of adoption of FP in Zaria, regardless of individuals' religion - compared to high uptake in other regions, such as the south-west, where both Christians and Muslims use FP (Adeyanju et al. 2017; Ajaero 2016 et al. 2016). This points to the possible influence of ethno-religious crisis in men's negative IB towards FP.

A representative number of the women in this study reaffirmed that religion disapproved the use of modern methods of FP, although they believed it permitted its use in extenuating circumstances:

Zahra, the Muslim female within the ages of 26-33 with secondary education, states this:

"Islam discourages FP, but it is in one of the Hadiths (Quranic Verses) that if childbirth poses a threat to a woman's life or health, it can be used" (Zahra).

[11] conflicts between various groups as a result of ethnic and religious differences , sometimes ending in violence, lost of lives and proprty.

Hapizah the Muslim-married female and a degree holder, states this: "… another Hadith Suratul Talaq 65 vs 7, talks about the importance of feeding and taking care of your family", in her interpretation, financial poverty is suggested to be an extenuating circumstance "it means a man's inability to feed his family is a sin".

For Molly, the Christian respondent currently working with the government, she had rhetorical questions for some religious teachings: "I am a Catholic, and my church does not permit the use of FP", she added that at some point before she got a job, she was unable to cater for her children: "my husband and I had no jobs, having nutritious meals became difficult" considering this situation she thought it necessary to use FP: "Do you think using it becomes a sin?" .

The responses from women are evidence that although women believe religion says no to the use of FP, they argue that in some instances, women may be allowed to use FP considering their inability to cater for the children. There is also a postpartum practice in the Hausa culture where a man is expected to abstain from his wife for two years after childbirth, for adequate breastfeeding and healing process (Renne 1996), but this has been reduced to a year now, and women take in sometimes before the child is one year old. These findings suggest that men themselves may be ignorant of these religious and cultural practices as well as some existing form of deception from men in communicating information about FP and religion to suit their desires to have larger families. These shows existing confusion between religion and FP, and it is essential to make accessible factual information on religion and FP to men and women in rural communities.

Some of the women also revealed that men were the reason for the low or non-use of FP information amongst women:

According to Molly, the Christian female participant, men not only hinder women from using FP but also used some form of cultural explanations and threats:

"When I started expressing my conviction to use FP, my husband threatened to report to my family and tell them he is prevented from utilising his dowry (bride price)".

One of the Muslim-married females, also reported the duty of a woman to increase the family size "In Islam when a man pays your brideprice, your work is to help his family by bearing children and labouring during festivals " and using FP without his consent " … is Haram (an abomination)" which gives the man "…the freedom to divorce you" (Hapizah; Muslim). The fear of women being divorced by men also served as a barrier to the use of FP.

In the northern culture and Islamic religion, a man can report his wife to her family for acting contrary to his instructions. Thus a woman's adherence to her husband's instructions may not necessarily emanate from trust, instead from the norms and mores of culture and religion.

On the contrary, while age was an identified motivation for the use of FP, it was an inhibiting factor for younger women who demonstrated to adhere to the instructions of their husbands on issues of reproductive health;

Tandatu, a female participant between the ages of 18-26 with primary education, reveals this:

"I will not mind using FP, but if my husband says no, what can I do".

From this extract, the younger woman casts herself as submissive to her husband's wishes and powerless to challenge his authority - a reflection, in part, perhaps, of her young age.

However, one of the Muslim-male participants demonstrated that, in extenuating circumstances," I would rather have my wife visit a tertiary health facility rather than a patent store or primary health care facility" this is because "she had complications after using a patent store for FP advice".

This also suggests that for men, the severity of the woman's ill health influences their IB on FP.

Apprehensiveness of Information

Language and the wordiness of FP print information (pamphlets) was revealed as a significant factor considered by men and women, which determined their decision to use or ignore such information sources.

A Muslim male participant with secondary education expressed his dissatisfaction with the language used in FP print materials, "English and complex vocabulary is used " adding that he is literate but, "If information is not written in simple English vocabulary", he expressed his unwillingness to go the extra mile to understand the content, "it is not meant for me…moreover, I will not read it". (IDI 4: male).

The excerpt expresses some form of anger considering the format of the FP pamphlets, with the respondent's disapproval of the language and the elaborate use of 'English words'. Considering the low educational level of rural dwellers in a Hausa speaking community where FP is not a perceived need, information is not presented in the appropriate format, which also impacts the low use.

The pamphlets distributed at the health facilities were also considered too wordy for some female participants:

Molly, a Christian degree-holder and an employee of the government, reported "The words are too many" pointing out that "I do not have time to read it, I have children to look after and work."

For some other participants, preference for visual forms of information, as well as text, to emphasise the importance of contraception was emphasised.

Kulu, a secondary-education Muslim participant said, "I do not know how to read" and recommended the use of "pictures they are good".

Conversely, it suggests that the choice of language and format in which FP information is presented also has the potential to discourage target audiences - reinforcing the need to produce and disseminate information in the appropriate language and format.

Geographic accessibility

The distance of the health facility, which is about 6.3km, was a significant barrier identified by men and women in the study:

Two male participants vocalise this:

The Christian-male, a degree holder, reported: "I will not travel to that far hospital" because he believed it was not worth it " for two minutes FP information”. Similarly, another Muslim-male with Islamic education and a farmer revealed “I will not travel miles for FP information” adding that proximity influenced his use of information “ when I can access it within the community here”.

Women were also concerned about the distance of the tertiary health facility from their homes;

“ I have to travel about 1hr:30mins to the health facility”(Tandatu; Muslim)

“The health facility is far” (Molly; Christian).

There are primary health facilities within communities, but they are run by community health extension workers[12], whom community members sometimes distrust on the basis that they are not as qualified as fully trained health workers in the tertiary health centres. The health centres were also widely characterised by inadequate facilities and equipment, which explains the reluctance of rural women to use them (Adegboyega and Abioye 2017). The men’s responses reaffirm the insignificance attached to FP while the distance and cost of accessing appropriate FP information contributed to men and women’s negative attitude and IB towards formal FP information sources.

Financial Accessibility

The financial cost of transportation and modern methods of contraception was also an identified factor inhibiting rural women from using FP information. They believed that after accessing the information, they might be unable to afford modern contraception, explaining their reluctance to access formal information in several instances.

The burden of the financial cost of transportation is narrated by Tandatu, a petty trader with primary school education:

“I have to go out with my children, and I cannot afford the cost of transportation for myself and my children”.

[12] Members of the community chosen by community members or organisations to provide basic health and medical care to other community members (Onwuhafua et al. 2005).

In Zaria, women are the primary childcare givers. A housewife who does not live in seclusion is expected to carry along all her young children while going out for unofficial duties, considering the religious and cultural belief surrounding FP, it is considered an unofficial appointment.

One of the Christian respondents, a degree holder, also narrates her experience with FP cost implication;

"after I was convinced to use FP, I was asked to bring about N500 ($1.50) for an implant at the hospital; I did not have a job then".

A significant number of female participants in this study were housewives doing petty trade, earning approximately $2.00 a week. As a result, they relied heavily on their husbands for financial support. The women showed the negative effect of the cost of FP to their IB because they required financial support from the men who did not support FP practice.

Availability

The untimely availability of FP products at health centres was also a barrier mentioned by women and a few men :

Kulu, the Muslim female between the ages of 42-49, said, "for every time I have visited the hospital, implants and injectables are unavailable" further reinstating this added that "…other women also complain about the same thing". This narrative was similar to that of the Muslim-male participant "My wife wanted a specific method prescribed by a friend, but it was unavailable".

These findings show that accessibility and availability of the FP information and services, especially amongst women, has a negative influence on their FP IB. This is because after overcoming the dilemma of side-effects religious and cultural practices, they are discouraged by the time and the opportunity cost of travelling and long waiting hours at the health facility to access FP information.

5.9 Distrust for government and international information sources

Some respondents expressed their perception about the motives of the Nigerian government and foreign NGOs in promoting FP as an escape route from significant problems facing the country such as poverty.

Some of the men and women in the study viewed FP promotion by the government as; an attempt by international bodies to reduce the Muslim population, and a ploy by the Nigerian government to exploit international organisations:

‟ I have heard stories about the government using population to solicit foreign help and promising the international bodies to reduce the birth rate, especially amongst Muslims” (IDI 5; Muslim; male; 47-55).

Health Information Seeking Behaviour of Rural Men and Women

The most common health-seeking information behaviour identified among the respondents was self-medication, influenced by previous personal experience or the experiences of relatives’ and friends. The advice provided by experts in the process of treating other community members is also shared with other community members (Emele 2018).

The primary health information source for women was their family and friends.

‟I get information from people in the market, and our women group”(Kulu; 42-49; Muslim; married)

‟I ask my friend who is a doctor” (Hafsat; Muslim; unmarried; secondary education;26-33)

‟my mother” (Tandatu; Muslim; female; married; Primary Education; 18-25)

Women also narrate their health information-seeking behaviour with patent stores more often when children were involved;

‟ I visit patent stores for child medication advice” (Hafsat; single;26-33).

The male participants also revealed the patent stores as their information source.

"When I experience headaches, I visit the patent store." (IDI 2)

Women, however, consistently favoured visiting the patent store more than men, which can perhaps partly be explained by their status as children's primary care-givers.

Traditional herb-hawkers were also revealed to be a source of health information for both men and women regardless of their religion and age, although the educated members of the community only subscribe to them when orthodox medicine is ineffective or does not suit their preferences;

"*I was at the tertiary health facility, and I had a growth, was told I would need surgery I did not want tha, so I got a remedy from the herb sellers"* (Molly; tertiary education; female; government worker).

A Muslim-male respondent with secondary school education also believed in the efficacy of traditional herbs "They are natural with no side effect" he also added that " they are cheap". For the participants in this study, the cost effectiveness and perceived limited side-effect of traditional medication was a motivation for seeking health advice .

The findings reveal that women use the health facility more compared to men, while the public information sharing pattern existent among men influenced their preference for advice from other men and self-medication.

In this section, the study focused on identifying factors affecting access to and prioritisation of FP information and sources. Improved knowledge of the factors which make information accessible and credible for rural men and women in Zaria will provide an understanding of the effect of these factors on their FP IB, and how these challenges might be mitigated to improve accessibility and increase FP uptake in this community. As indicated in the findings, low literacy levels, age, lack of access to health facilities, cost of FP products and services and inappropriate use of language, format and content of print information may combine with the effects of ingrained religious and cultural practices to limit the extent to which formal information sources are utilised. Gender-specific preferences and individuals' previous experiences with information sources are also significant factors that can influence the information behaviour of men and women and their predisposition towards particular information sources over others.

On the other hand, proximity and trust were significant characteristics influencing women's utilisation of information sources, with Muslim women preferring private one-to-one chats while Christian women were more open to group communication. Conversely, men's information use was more determined by the authority and proximity of the source. For both women and men, however, the preferred medium of communication was interpersonal.

The factors affecting the information behaviour of the rural men and women in Zaria can, therefore, be summarised as falling into three broad categories;

1. Environmental factors – these include providing FP information without giving adequate consideration to the socio-economic statuses, cultural and religious beliefs of the people, especially the likelihood of gender determining the selection of information sources, information-sharing channels, and levels of trust or distrust for government information sources.

2. Psychological/personal factors – these include the people's self-perception, self-efficacy and cognitive avoidance resulting from bad experiences, including medical side-effects, arising from FP advice.

3. Issues are limiting the use value of formal FP information sources; including the proximity, time and financial cost involved in assessing FP information; the timeliness and consistency of FP information; and the language and format used to present information.

In conclusion, it can be said that, although the negative attitude and low adoption of FP in Zaria can be attributed to cultural and religious beliefs, untimeliness and inaccessibility to FP information facilities, the inappropriate use of information channels, presentation format and location of information sources do not meet people's everyday information needs. Therefore this research identifies a need for the provision of more accessible and appropriate FP information, adapted to the contextually specific factors at play in Zaria - from culture, religion, language and gender power balance to levels of formal education and literacy.

6 CHAPTER SIX

Discussion of Findings

6.1 The Influence of Demographic Factors on the IB of Men and Women in Zaria

1. **Age**

As demonstrated earlier, the study examined IB and preferred information sources of participants from two broad age categories, with women (18-49) and men (18-55). Older women between the ages of 34-49 were revealed to be significant advice givers to men and younger women between age 18-33, like findings in Uganda (Nobelius 2010). The experience of the older women impacted the men and younger women's perceived credibility of the source, which corroborates the findings in Ibadan South-West Nigeria (Dairo and Owoyokun 2010).

Also, women's age was identified to influence some level of autonomy in their selection of information sources to access and use. Women between the ages of 34-49 were less likely to dismiss their intentions to consult specific information sources and use FP information as a result of their husband's negative attitude towards this practice, regardless of the consequences.

"*I almost got divorced because of FP, but that does not mean I will not use it again if I find a suitable method, I will go and do it quietly* " (Hapizah;34-41; Muslim; tertiary education; unemployed).

"It was before now you had to inform Mai Gida (Husband) about everything, now I advise people just to do what is best for them" (Molly 34-41; Christian; government worker; married).

These corroborate findings in Nepal (Acharya et al. 2010), Ethiopia (Haile and Enqueselassie 2016) and Bangladesh (Anderson and Eswaran 2009) which are predominantly rural countries. Findings in these countries show that older women move out of extended family responsibilities and start contributing to discussions on reproductive health and sexuality.

This pattern among middle-aged women was, however, in contrast with that of younger female participants (18-25), who were less likely to adopt family planning against their husband's intentions. "I will not mind family planning, but if my husband says no, what can I do?" (Tandatu; 18-25), similar to findings in Pakistan (Pasha et al. 2015).

According to Robson and Robinson (2013), an individual's age is likely to influence their information source preference, as a result of past or current experiences, as well as adaptability to contemporary changes in information source characteristics. Therefore, the findings suggest that age has an influence on IB in family planning in rural communities where women have limited autonomy in matters concerning their reproductive health.

Education

In the current study, levels of educational qualification was an insignificant corollary of FP information-behaviour among men and women, consistent with findings in Pakistan (Agha 2010) and Kano North-West Nigeria (Duze and Mohammed 2006).

However, in contrast with this finding, prior studies have shown a strong relationship between education and the use of contraceptives (Duze and Mohammed 2006; Speizer 2014; Ajaero 2016), arguing that education is crucial for rational decision making and vital in understanding information. However, this relationship was not observed in this study but will be worth investigating with a larger sample.

Ethnicity

There was no identified relationship pattern between ethnicity and the IB of men and women in the area of study, in contrast with the findings of Babalola and

Fatusi (2009) in Nigeria which suggest that ethnicity influences the utilisation of FP information and service sources. This result validates the findings of Islam and Ahmed (2012), which reveals that rural dwellers share similar information behavioural characteristics regardless of their country or ethnicity.

Occupation

According to Robson and Robinson (2015; 2013), individual's working environment influences their information behaviour. The profession of women outside the home (excluding petty trade and working on their husbands' farms) was revealed to influence their IB in terms of access, use and source credibility. In this study, housewife's or petty traders whose primary source of income was their husband were shown to be significantly dependent on the men for financial support to visit the tertiary health facility, compared to women who earned income outside their home, echoing findings in Bangladesh (Anderson and Eswaran 2008). This dependency on men was shown to influence their decision to access FP information from family and friends within their community, which they found cost-effective.

In this case, the favoured IB and information sources of low-income women who depend on their husbands for financial support were also more likely to be informal – further reflecting the findings of studies carried out in Uganda (Kabagenyi et al. 2014) and Pakistan (Shaik and Hatcher 2004). Moreover, they reflect Robson and Robinson's (2013) assertion that the level of one's income can correlate with the selection of information sources (blogs, journals, television and radio channels) adding that the type of information source utilised influences an individual's perception on specific issues.

In summary, the primary demographic factors shown to influence the IB of female participants preference of information sources are age and occupation (Income). Middle-aged and older women (34-49) were revealed to be significant FP information sources for younger women, similar to Robson's (2013) concept of the interchangeable role of being a user and provider of information, while older and higher-income earning women were revealed to be more likely to make decisions about their reproductive health without seeking the consent of men.

Thus, a need to avail rural women with appropriate FP information and empower them through the building of vocational centres in rural communities, where they can learn to use of their culinary and other skills to enhance production in commercial quantities, make significant profit and increase their chances of autonomy.

6.2 Rural Information Sources on Family Planning (Gender Selective)

The participants in this study revealed multiple information sources on family planning; family and friends, male groups, female religious groups, religious clerics, village heads, traditional medicine men, herb hawkers, radio and print media.

Contrary to the identification of the media as the most potent medium for FP uptake in Nigeria (Okigbo et al. 2015; Ajaero et al. 2016; Aliyu et al. 2010), this study showed interpersonal communication as the most used communication method for FP discussions. These information sources include;

6.2.1 Family and Friends

This study showed that the majority of the participants (men and women) FP information source (s) were informal.

Only one female participant attributed her FP information source to her father;

“My father said women who give birth within short-intervals are likely to suffer from cervical cancer” (Molly; Christian).

Although literature supporting this finding is yet to be identified, the language and choice of words suggest indirect speech, which reaffirms findings from Pennsylvania (Akers et al., 2010), which demonstrate a tendency among African parents to use indirect speech to address contraceptive issues with children of the opposite sex. This suggests some form of gender biases, influenced by patriarchy, in the northern culture, where men and their female children have limited conversations compared to male children (Makama 2013). Hence discussing issues of reproductive health is revealed to be an unusual topic discussed between men and women, which possibly explains the difficulty women face in convincing men to use FP later in marriage. This patriarchal dimension also chimes with Chatman's (1996) description of the lived experiences of people living in poverty as being shaped by prevailing cultural norms influenced by their socio-economic contexts.

However, men in this study revealed to be negatively inclined towards FP were also identified as information sources to their wives, friends and other community members - if only as providers of harmful and misinformed knowledge:

"You see my friend's wife used this family planning. She was slim, but now she has put on weight" (IDI 4; male; married; Muslim).

This finding further emphasises the assertion by Ankomah et al. (2011) about family and friends sometimes misinforming their fellow community members and Chatman's (1996) concept of deception – or individuals' voluntary provision of distorted information in order to reduce the practical usefulness of advice available to information-seekers.

In this study, only one younger female participant within the age of 18-25 revealed the husband as a primary source of family planning information. This result reinstates the findings of Ejembi et al. (2015), which showed that only 2.5% of the women in Zaria depended on their husbands for FP information.

The use of informal information sources for reproductive health advice in this study is consistent with findings in a rural area in Turkey (Ay et al. 2009). Consequently, the current research suggests a participatory programme, to involve community members who have been revealed to be trusted FP information providers. Trust, experience, proximity was stated among the significant reasons for source selection.

6.2.2 Health Facilities

Women were revealed to be more likely to visit the health facilities to inquire about family planning compared to the men, similar to the findings in Uganda (Kabagenyi et al. 2014).

This study found that although the health providers and facilities were not demonstrated to be the women(s) nor men's first choice of FP information, women were advised by informal FP information sources (mothers, friends or sisters) after proffering harmful advice on the side effect of FP to visit the tertiary health facility.

"Some of these implants and injectables cause infertility and cancer, but you can go to Shika and ask [tertiary health facility] some people do not react to some methods" (Zahra: Muslim; 26-33; married; petty trader).

This finding describes the existence of a subconscious belief among women that the health providers are gatekeepers to useful information about FP methods. It might also be seen to corroborate Robson and Robinson's (2013) emphasis on psychological factors affecting individuals' perceptions of their knowledge gaps as motivations to seek information. It was interesting to observe that while women sometimes engaged in information seeking, the majority of the men in this study did not search for FP information. Instead, the knowledge they have acquired about family planning has been through unintentional search, resulting in the acquisition of relevant knowledge Wilson terms this process "passive attention" (Wilson 1999, p. 257).

6.2.3 Patent Medicine Shops

The primary source of FP information for the unmarried in this study was reported to be the patent medicine store (Pharmaceutical stores), which was perceived to eradicate the interrogations experienced at government-owned health facilities and also maintain the confidentiality of the current 'sexually active' status of the information seekers. Also, the findings revealed the unfavourable attitude of health workers in FP clinics to unmarried people, establishing the findings in Ibadan South-West Nigeria (Ahanonu 2014). The unpleasant experiences of singles in Zaria community with FP services and health providers revealed their increased reliance on patent stores which could have unqualified personnel, the internet and open information sources. Validating the report in Nigeria (Oye-Adeniran et al. 2005) and South-East Nigeria (Ozumba and Ijioma 2005) which shows that about 49.1 per cent of unmarried persons in the country rely on patent medicine stores for FP information, similar to findings in Ghana (Apanga and Adam 2015). This echoes the notion of "secrecy" identified by Chatman (1996, p.199):

in this case, singles in Zaria might be seen to be hiding unpleasant information relating to their reproductive health from qualified health personnel who are in a position to provide relevant information. Also, the act of singles claiming to be 'sexually inactive' when they are indeed 'sexually active' also connotes "deception" identified by Chatman (1996, p.200), although this behaviour is influenced by culture and religion, it increases their likelihood to access irrelevant information, thus potentially leaving the network of singles devoid of critical information about contraceptive use.

This study, having recognised the preference pattern of FP information by singles to be patent stores, suggests the training and inclusion of Patent Medicine shops in the listing of government FP information centres.

Also, married women in this study who wanted to keep their current use or intentions to use FP in the future a secret from their husbands, revealed using the patent medicine store as their primary information source. Similar to findings in Kenya (Emenike et al. 2008) and Bangladesh (Murshid 2017). Both authors reported the development of a "skilful" act by women in patriarchal dominated regions to gain control over their bodies, health, and future, by using family planning in clandestine.

Men also revealed the patent stores to be their primary source of purchasing condoms and sometimes engaging in conversations to gain information about the use of contraception. A strikingly honest admission by one of the male participants suggested that some men who sought FP information from the patent stores were not necessarily seeking it in order to control their family sizes, as to avoid fathering children through extra-marital affairs.

One reflected: "My friend's mistress got pregnant for him, and this encouraged me to start seeking FP information." (IDI 3; male; Christian)

In the same way, findings in Zimbabwe (Adetunji 2000) demonstrate the high use of condoms among married men in non-marital relations compared to singles.

In contrast with the findings in Zaria, Izugbara (2004) reported the low use of safe sex methods (condoms) in non-marital relations in south-south Nigeria. This differential can also be explained from the cultural and religious (Islam) practice in Zaria, which allows polygamy but prohibits having a child outside the union of marriage (Yusuf 2005). These findings show an anticipated positive attitude in men if they are included in FP programmes and availed with detailed information highlighting the side-effects and benefits of FP to the family and women.

6.3.4 Radio

Majority of the men in this study compared to the women had access to radio, and both recalled listening to family planning messages on the radio. This result supports earlier findings in Nigeria, which posited that 67.5% of rural dwellers have access to the radio (Ajaero 2016).

The men in this study listened to the radio more often compared to the women, corroborating NDHS (2013) report which shows that more men (75 Per cent) listen to radio compared to the women (35%) population in Nigeria.

Another interesting finding was that the infrequency of FP programmes on the radio was revealed to be a contributing factor to the low utilisation of radio as a significant source of FP information. Findings in this study showed that radio programmes on family planning are not scheduled, and the people more often only stumbled on FP programs like other health programmes on the radio:

"Sometimes on the radio, you hear FP in Hausa in the course of health programmes, there is neither a specific day nor time for airing these programmes I access it by luck." (IDI 5)

Considering a decline in radio listenership in Nigeria from 81-55 per cent between 2008-2013, and a statistics showing that 75 per cent of men and 35 per cent of the women population in Nigeria listen to the radio at least once a week (NDHS 2013), these statistics suggest an inconsistency in radio listenership by rural dwellers. The finding in this current suggests a relationship between the inconsistency in radio programmes and its low utilisation by rural dwellers as a significant source of FP information, suggesting that rural dwellers are unable to rely on radio to provide timely family planning information. This reinstates the argument by Kana et al. (2014), which attributes the recurring incidence of infant and maternal mortality in Nigeria to the short duration and inconsistency of reproductive health initiatives (Kana et al. 2014).

In contrast with findings in the current study, reports in the south-west of Nigeria (Adekunle et al. 2004) Kenya (Okigbo et al. 2015) and among urban women in Nigerian (Bajoga et al. 2015), found radio to be a potential medium for increasing uptake among listeners. Although the above studies were conducted in urban areas, this study argues that radio has the potential of being accessed by rural dwellers as a primary FP source of information, considering evidence in the study showing access to radio by men and women. This indicates a need for the government and NGOs to be consistent in the use of radio to disseminate timely, scheduled and appropriate FP information, that takes into account the culture, religion, and language of the people.

6.3.5 Others

The accessibility, low cost, and claims of efficacy influenced the use of traditional medicine hawkers (men and women who sell medication made from the stems and roots of trees) and traditional medicine men amongst rural men and women. One male and two female participants mentioned the use of these sources for FP information, which they believe are natural and less likely to cause side-effects, unlike modern contraceptives. This result further supports the findings of Ankoma (2013) and Ojua et al. (2013), which shows that rural dwellers believe in the efficacy of traditional medicine and have used it to treat ailments like infertility with positive results. This meets with the consistent findings in Zaria (Ejembi et al. 2004; Ameh and Sule; 2007; Aliyu et al. 2010), which shows that about 37 per cent of women seeks advice about family planning from traditional medicine men and Medicine Hawkers.

6.3 Accessibility and Availability of Family Planning Advice-Givers

6.3.1 Geographic Accessibility

Geographic accessibility is discussed in terms of distance from the users point to the delivery point. Women compared to men in this study showed a willingness to access a health facility for FP information, but the distance and time cost of travelling from their homes to the facility served as an inhibitor to access. This is similar to the findings in Pakistan (Shaik and Hatcher 2004), which stressed distance as a barrier to women's low use of public health facilities. According to Robson (2013), location (proximity to sources) is a significant factor which influences all aspects of information behaviour. It affects the information user's needs, wants, goals and perceptions, which may motivate or inhibit information search. Proximity was, therefore, a significant feature identified in this study as a (partial) determinant of the preference and utilisation of FP information sources among both male and female participants.

The low utilisation of health facilities in Zaria for factual information on family planning is associated with distance, which has been identified as a barrier to use (Peter et al. 2008). As a strategy for promoting family planning, improved mobility should be provided to the women's preferred tertiary health facility, and the PHCs should be adequately supplied with products, and trained personnel (Adegboyega and Abioye 2017).

6.3.2 Financial Accessibility

Findings from this study also showed that proximity and free cost of FP services provided by informal information sources motivated the use of these sources by people in rural communities, especially women. Consistent with findings in developing countries (Peter et al. 2008), Zambia (Hjortsberg and Mwikisa 2002) and Zaria (Adegboyega and Abioye 2017) which revealed that cost of services influences the utilisation of information. Findings in this study further showed that modern family planning products are expensive compared to the traditional methods. This finding indicates financial constraint as a factor which affects the needs, wants, and goals of an individual and their information behaviour (Robson 2013).

This inhibitor has made women rely heavily on patent stores for FP information and services, findings from this study show that the alternative provision to pay by instalment allowed in patent stores motivates its use. This service can also be considered for inclusion in government-owned health facilities.

6.4 Trusted FP Information Sources in Zaria

Friends and family were the most trusted sources for both men and women in Zaria. However, there was a discrepancy in the characteristics determining the perceived credibility and utility of sources found to be influenced by gender.

Men's perceived source credibility was influenced by 'authority' with a preference for male authority; Religious leaders (Imams), Political leaders (Village Head), Social leaders (Football coach), which also determined their use of information source. In Northern Nigeria, these positions are occupied by men (Yahya 2007; Okpe 2005) and findings in this study confirm the 'man' in rural Zaria as a symbol of authority and the dominant decision-maker in his family. Men's preference for male information sources might, therefore, be understood from the perspective of homophily (Rogers 2004): the concept that people are more likely to be influenced by those similar to them because of the belief that they share common interests. Robson and Robinson (2013) also identified 'authority' as one of the key characteristics that made a source seem credible. The male participants' preference for male information sources echoes findings from both Ghana, another African state (Hagman 2013), and Pakistan, a Muslim-dominated country (Ali and Ushijima 2004), with the existence of patriarchy.

According to Robson and Robinson, perceived credibility (reliability, purpose, trustworthiness, authority, expertise, objectivity) and utility (accessibility, relevance, timeliness, completeness) form a user's judgement of an information source. Findings in this study indicate that trust, timeliness, proximity and experience with information source (s) are the criteria which determine women's confidence in, and willingness to use, an information source.

The ISCM model highlights culture as a factor influencing IB (Robson and Robinson 2013, p.18). The female children in the Hausa culture hardly interact with their fathers, due to "Kunya": a form of refrain which prevents a female child from discussing at close range with her father who is the head of the house and a symbol of authority compared to the male child in the society (Yusuf 2005). It is thus not surprising that the womenfolk are women's preferred information advice-givers - cultural practices influence this source and behaviour. The practice of

'Kunya' further makes girls rely on their friends for issues of sexuality as well (Yusuf 2005), similar to findings in this study.

6.4.1 Distrust of Government Sources

There was a general distrust of official sources of information, such as pamphlets and radio, among participants of both genders, as well as scepticism about the goodwill of the Nigerian government in promoting FP:

"you see I have heard stories about the government using population to solicit foreign help and promising the international bodies to reduce birth rate especially amongst Muslims" (IDI 5; Muslim; male; 47-55; farmer; secondary education).

Distrust for the Nigerian government and international sponsors have also been demonstrated by Islam and Ahmed (2006) to be an issue in developing countries. In such countries, due to the negligence of the people's welfare by the government, the people perceive any FP initiative as a population reduction or fund embezzlement strategy by the government. Renne's findings in Zaria (2006) revealed Northern Nigerians to question government advocacy for health initiatives, referring to the administration of the trial Trovafloxacin Mesylate which was given at no cost during the 1996 cerebrospinal meningitis without informed consent. The people perceived this act as a population reduction strategy launched by international organisations with the aid of the Nigerian government. This occurrence, according to literature, is significant in the low adoption of FP and other health initiatives.

This finding revealed a mutual distrust by men and women for the government, which constitutes the primary formal FP information source. Even though men were revealed to be the women's primary informants about the government's allegedly harmful intentions, this finding is significant because, on the issue of FP and religion, women insisted they did not wholly believe men's perceptions, whereas they appeared to agree with them about the dubious motives of the government. Chatman's (1996) identification of the existence of two worlds among people living in poverty is useful in interpreting these findings. According to Chatman, two contrasting worlds - "insider and outsider" - exist in the experiences of people living in poverty. While those who come to know the world beyond their own experiences are regarded as 'outsiders', those whose day-to-day cultural context is more insular and socially stratified are conceived of as 'insiders'. Although living and working within a community does not necessarily make one an insider, incorporating its standards and norms into one's routines and behaviours do. In the context of this study, it was the northern community that accurately perceived the information provided by the Nigerian government as deception. In so doing, they regarded the government itself as an 'outsider': an attitude 'justifying' the disregard for expert FP information sources by community members, especially among the men.

Indeed, this distrust of government information sources may also be contributing to men's disapproval of women's visits to health facilities for FP information and, in turn, to women's fears about medical side-effects.

All of these points towards a clear need for the government - the principal promoters of FP in Nigeria, through international organisations - to regain public trust, including by proactively addressing any misconceptions about its intentions. However, the distrust in the government was found to contribute to the negative FP IB among rural-dwellers in Zaria.

6.5 Challenges facing family planning information behaviour

Religion and culture were significant factors influencing men's Information use in family planning. Majority of the men in this study were revealed to be passive modern FP information seekers.

Men in rural Nigerian communities have previously been shown to respect and act on religious teachings (Duze and Mohammed 2006), based in part on their deference to established 'authority' as a respected source of information (Robson 2013). Hence their decisions in reproductive health are guided by religion and the cultural practice of patriarchy. In this study, decision-making around fertility, contraceptive use, and other family planning issues were made by men – echoing similar findings from Nigeria's Kano state (Duze and Mohammed 2006).

"As the head of the family, if my wife uses FP, her sins will be on me on the last day, because I am the major decision-maker" (IDI 4; Muslim; male;).

" My wife had complications after using modern FP; it may have been a revelation from God discouraging its use" (IDI 5; Muslim; male)

The negative attitude of men towards FP can be understood in the context of their social and religious role as family heads and their perception of God's expectations in the context of procreation, and these chime with the ISCM models emphasis on these factors as critical influences on information behaviour.

However, findings in the current study revealed a contrast in men's religious and cultural obligation of providing for their families and their negative attitude towards FP on the premise of religion and culture 'encouraging procreation', and this was brought to limelight by a female participant:

"Islam permits the use of FP in extenuating circumstance, this includes, inability to feed the family and if childbirth becomes a threat to the woman's life" (Hapizah; female; Muslim; 34-41; tertiary education).

The participant's report suggests that giving birth to children a man is unable to cater for while risking the woman's life as a result of continuous childbirth is contrary to religious and cultural expectations. The inability of some men to provide for their families while preventing their wives from using any form of modern contraceptive was also evident in this study.

"My husband was struggling to feed the family, but forbade me to use FP" (Zahra;26-33; Muslim; petty trader).

In the current study, it was evident that men reiterate the Quranic injunction which promotes multiplication, omitting that which states "mothers shall suckle their children for two years if they wish to complete breastfeeding" (AL-Baqara 2:233).

As of this interesting finding, this study argues that there is an existence of tension between cultural, Islamic beliefs and the personal desires of men (Renne 1996; Yusuf 2005).

A clear public health need can, therefore, be discerned here for firmer boundaries between cultural, religious and personal practices and the information empowerment of women, in particular – in the interests of their wellbeing and that of their children. A similar finding from Zaria was previously reported by Renne (1996), who identified a low level of awareness of Quranic injunctions surrounding reproductive health and childbirth among women in Zaria, Nigeria, attributed to the possible omission of such information by male religious leaders. This attitude of men, again echoing Chatman's (1996) concept of secrecy, suggests that we instinctively want to protect ourselves from unwanted intrusion from whatever source by keeping our personal experiences secret (in this case men keeping their desires for more children a secret from their wives) in order to preserve their privacy. However, the private dimension of life in this study appears to manifest itself as a form of *collective* behaviour, which sees "men influence women's FP information behaviour" through a process of normative male-to-female information-sharing in the society.

On the other hand, women in this study were more positively inclined towards FP, although regular threats of divorce and the exercise of financial autonomy and authority as the family head(s) by their husbands were repeatedly cited as weapons used by men to maintain control of the information sources available to them.

A relationship was found to exist between earning an income and female autonomy in Uganda (Kabagenyi et al. 2014). However, an observation in this study showed that some women likely to have good paying jobs due to their educational qualification are being restricted from working by their husbands. For example, one of the female Muslim participants reported: "I am a university graduate, but my husband will not let me work". Yusuf (2005) reports that the deprivation of women with potentials to secure high income earning jobs by men in northern Nigeria is sometimes an attempt to control their autonomy because they believe that such women would also struggle for autonomy in the home.

6.6 The relationship between Health Information Seeking-Behaviour and Information-Behaviour of Participants

The women and men in this study who purposefully searched for FP information revealed the promotion of better health for women and their children motivated this search, further demonstrating their use of similar information sources for general health information enquiry and FP. Corroborating the findings in developing countries, which demonstrates that rural dwellers have similar information behavioural pattern (Islam and Ahmed 2012), further reinstating that childcare labour motivates women to seek health information (Yusuf 2005; Mannierre 2015).

Gender and Information use

Although culture, religion, information accessibility, language, timeliness and source credibility contribute to the low use of FP information in northern Nigeria, the influence of gender on information use also proved to be highly relevant - and is a factor not sufficiently addressed by the ISCM model. The construction of cultural and social personality established in information behaviour is influenced by gender (Urquhart and Urquhart 2010, Manierre 2015). Hence the socially ascribed construction of confidence, self-efficacy, self-perception, cognitive dissonance, increased uncertainty and consideration of an approachable source can also be gender-related (Liu et al. 2017; Urquhart et al. 2010; Steinirova and Susol 2007). These factors have an impact on the overall level of satisfaction or dissatisfaction experienced as a result of an individual's utilisation of specific information source(s). To take just one example, the sufficient take-up and use of family planning information in rural areas like Zaria[13] can be achieved by repackaging information to suit gender-specific formats and preferred channels.

[13] where men and women by culture are not addressed simultaneously in the same place especially in Islam.

7 CHAPTER SEVEN

7.1 Contribution, Recommendation and Conclusion

The aim of this study was to examine the information behaviour (needs, access and utilization) around family planning of parents and prospective parents in Zaria, northern Nigeria, by identifying the range of information sources at their disposal, their most and least favoured advice-giver and the familial and external factors that facilitate and/or inhibit their engagement with various information sources.

The study also achieved the following objectives:

1. To Explore the range of FP advice-givers available to parents and prospective parents in Zaria and accessibility to each source.
2. To Identify the most and least trusted sources by men and women as well as reasons determining source preference by gender.
3. To Identify the first point of contact, a man and woman consider when starting a family.
4. To Establish the relationship between the FP IB and health-seeking IB of men and women.
5. To Understand and analyse the relative impact of cultural, religious, economic and other factors on the IB(s) and favoured advice-givers of women and men and the influence of men on women's IB.

7.2 Reflection of Objectives

Objective 1

To determine the range of FP advice-givers available to parents and prospective parents in Zaria province and the relative accessibility of each source.

A wide range of FP advice-givers were identified in Zaria, ranging from friends and relatives, husbands, health providers, the internet, traditional medicine men, religious clerics, village heads, women's groups, patent stores and all these sources were revealed to be close to their place of residence, as they find travelling miles to acquire FP information uneconomically and inconvenient. Also, some of the women live in seclusion, so travelling out of home or their immediate community was not an alternative, except in the case of severe illnesses.

Objective 2

To identify most and least trusted information sources and advice-givers and analyse any discrepancies between those favoured by women and men.

Although family and friends were the most trusted information sources for both men and women, there were discrepancies in the characteristics of particular sources that impacted on men and women's perceived source credibility. Some of these discrepancies exhibited a clear gender split, with men (on balance) being more inclined to trust traditional and informal information with 'constituted authority' over more formal and medicalised advice. On the other hand, 'trust and rapport' was an important criterion guiding women's preference and perceived credibility of a source. Marital status also impacted on the source preference of singles in the community. 'Confidentiality' which built trust for the information source, formed singles judgement for perceived credibility and source preference. Women were generally revealed to trust sources based on their experience and rapport built over time with the source(s), while men preferred sources with authority within their community.

The FP information sources and services (radio programmes, TV, FP healthcare services) sponsored by the Nigerian government, service and international bodies (NGOs, charities) were the least trusted FP information sources. Various reasons were stated for the existing distrust for these sources such as; the perceived negligence of the government in providing basic social amenities for rural dwellers and the exploitation of international organisations through demand for foreign aids to control population growth through the FP. To a widely held perception about an unstated agenda by international organisations to reduce the Nigerian Muslim population. The distrust for formal information sources because they are government sponsored, highlights a need for advocacy in rural areas through sources trusted by men and women to rebuild trust for the government, to facilitate the promotion of appropriate FP information within the rural communities.

Objective 3

To determine the first points of contact favoured by adults of either or both genders when considering the possibility of starting a family.

There were differences in women and men's first points of contact when considering starting a family. The majority of men were revealed to consult their father's or the oldest male child in the family, which is a significant practice of hierarchy in a patriarchal society like Zaria.

Women's first point of contact, by contrast, was revealed to be their mothers because they are close to them and believe the women folk will assist with spiritual intercession, which also reveals some element of religiosity amongst women in Zaria.

Objective 4

To consider any relationship between gendered information-seeking behaviours around FP and the health ISBs of women and men generally.

There were similarities in the observed pattern of health-related and FP ISB amongst a significant number of women and an insignificant number of men who maintained a positive attitude towards the use of contraception. The informal everyday information sources (family and friends), patent stores and health facilities were the sources used. However, in the case of a few women and a significant number of men who were negatively predisposed towards the use of FP, "selective exposure" was observed (a tendency for individuals to favour information sources which reinforces their perspective while avoiding contrasting information) (Freedman and Sears 1965; Festinger 1962). The Patent stores, family and friends and health facilities were used for information on ill-health, but on issues of FP, they were observed to ignore the health centres and consult religious clerics, village heads and family members not supportive of FP.

Hence a need to promote appropriate FP information to the general public within rural communities considering that it is difficult to restrict who becomes a FP information provider to other community members. The first point of contact when suffering from minor illnesses was also revealed to be self-medication, with advisers deriving knowledge from previous experience, family and friends, or communal information-sharing culture of advice obtained from medical experts. The burden relief of the time and financial cost associated with this information behaviour was revealed to motivate the use of identified sources.

Objective 5

To identify and analyse the relative impact of cultural, religious, economic and other factors on the IB(s) and favoured advice-givers of women and men – including any influence(s) of one gender on the other.

Culture, socio-economic, religion, ethno-religious crisis, patriarchy and the fear of side-effect were identified as significant barriers to FP information amongst rural dwellers, especially amongst women.

Contrary to other studies which emphasised cultural and religious practice that encouraged procreation and desire for large households as barriers to FP, this study demonstrates that the main barriers among Zaria adults are more prosaic- ranging from the cost of transportation to health centres, long queues to consult FP advisers, price of FP products, and the perceived unwillingness of the FP providers to provide detailed information about the potential side-effect of FP.

However, the cultural practice of patriarchy was revealed as a barrier to FP IB, as many Zarian women continue to require men's approval before accessing any formal FP information sources. The primary formal FP information sources uphold these cultural power relations, government hospitals question women's marital status and request the physical presence of husband's as consent before administering any form of modern contraceptions (pills, IUD's, implants).

For singles, the cultural norm of abstinence hinders them from accessing FP information in government facilities. Hence, they shy away from seeking FP advice in hospitals which may be willing to provide or even offer free condoms. Furthermore, the cost of consulting privately owned hospitals where FP information and services sre provided for all regardless of marital status and male consent is expensive.

The fear of side-effect believed by rural dwellers to cause cancer and infertility were identified barriers to FP take-up and limited access to appropriate information to counter these existing myths were hindered by time and financial constraint.

There is a need for culturally appropriate FP content and a need to consider gender and marital status more proactively in FP initiatives and programmes.

7.3 Contribution to Literature

Previous studies in information behaviour in Nigeria have focused mainly on the information needs and IB/ISB of urban-dwellers, principally professionals. The few studies of IB in rural areas of Nigeria focus on the needs and ISB of residents of specific regions (Momodu 2002), with a bias towards those in manual occupations such as farming and fishing, and other jobs common among rural-dwellers (Saleh and Lasisi 2011; Njoku 2002; Momodu 2002). One of this study’s key contributions, then, is to identify the need to provide adequate and better-targeted information on FP to rural people. By investigating the family planning IB of these people from the perspective of their environmental and religion-cultural contexts, and the factors that might facilitate and inhibit their access to government and other official resources. The study has contributed towards improving the existing knowledge-base about the relative influences of religion, culture, transportation and other access issues, language and gender towards shaping individuals’, couples’ and families’ information behaviour and how the complexity of these factors may be contributing to the low adoption, to date, of FP in rural areas of Nigeria. This research is, therefore, significant because, until now, there has been limited literature focusing on FP information behaviour in Nigeria and, indeed, developing countries as a whole.

The study has also contributed to our understanding of the influence of gender-based information behaviour in rural areas. Although previous research has been undertaken into gender differentials in IB, these studies have primarily been conducted in developed countries, with a focus on more general health information and the use of technology for information-seeking, again with a bias towards professionals (Liu 2017; Manierre 2015; Urquhart 2010; Steinerova and Susol 2007; Spence 2006). Through this study, the significance of gender and its role in FP information behaviour among rural dwellers is explained further.

Limitations of the ISCM Model

Although the ISCM model is a blend of both information-seeking and communication models and was significant in the generation of rich data in this study in terms of gender and IB, it is not without its limitations.

One of the most significant of these limitations is its strong focus on communication and the suggestion that it is primarily a communication-focused model. This is evident in the diagram of the model in Figure 1, in which communication is at the centre, with a straight arrow linking communication to IB. This one-directional arrow is shown to have no connection with other activities, suggesting that communication is a non-iterative process. However, Wilson (1999) argues that communication and information behaviour is an iterative and intertwined process because, without communication, there would be no information and vice versa. A significant characteristic of information and communication highlighted by Wilson (1999) is the iterative process designed to suit the information behaviour of the target audience, which has been argued to be a continuum (Martzoukou 2006). This limitation is evident in the findings of this study, where participants showed dissatisfaction for the language used in communicating FP information in print: using this medium to disseminate expert FP advice (mainly in the form of pamphlets, posters and leaflets) was not a preferred channel among the rural-dwellers concerned. These findings suggest a need to acknowledge the existence of a continuum in investigating the communication and information behavioural dimensions of an issue and identify the lack of emphasis on this as a limitation of the ISCM model.

In addition findings in this study reveal that, although culture, religion, accessibility and source credibility are significant factors affecting information behaviour, the ISCM model will benefit from modification to include Chatman's (1996) concept of "insider and outsider" (pp.194) as a factor affecting engagement with, and use of, information. This is evident in the participants' distrust of Nigeria government-directed family planning initiatives sponsored by NGOs. A significant number of participants indicated a degree of suspicion about their government's motives for supporting FP campaigns, with a widespread belief that it promoted them for reasons unrelated to the welfare of its people. The effect of this perception is to render the government an 'outsider' to whom it is seeking (perhaps wholly benevolently) to impart advice. Thus, the model needs to be modified to reflect these concepts for detailed investigation of IB in rural areas for future research.

The ISCM model also ignores the two categories of "passive and active" seekers in information behaviour, as demonstrated by Wilson (1996), although Robson and Robinson state this in explaining the model (2013, p. 185), it is not represented in the diagrammatic representation. Investigating these groups in information behaviour research is significant, as knowledge of them can inform the packaging, targeting and strategising of information to reach key identified groups. This is evident in the findings of this study, where some of the men were passive information-seekers, who stumbled on information on FP without either identifying a need to do so or searching for it; a behaviour Wilson (1996) terms "passive attention" (Wilson 1997 pp. 562). The fact that they came across this information on the TV or radio, or overheard other people discussing it, did not necessarily translate into use. This is also an essential aspect of information behaviour which needs to be considered.

Although this study acknowledges Wilson's (1996) model of information behaviour, Chatman's (1996) conceptual framework of information poverty were relevant in providing explanations and understanding of some emerging themes like distrust (the notion of insider and outsider) and passive attention to FP information evident in men's attitude. These models, however 'leave out' important factors influencing IB like culture, religion, source credibility and personal factors which need to be investigated to understand existing issues such as low adoption of FP in Zaria.

Wilson's model, which shows a linear method of investigating IB, has been criticised for portraying IB as a simplified process.

"The diagram is simplified by showing the intervening variables at only one point whereas at least some of the variables may intervene between contexts and activating mechanisms, and between information-seeking behaviour and information processing and use "(p. 569). FP campaigns have been on-going in northern Nigeria as far back as 1969 (Caldwell and Ware 1977), and low adoption has been an issue till date (Babalola and Olubiyi 2015). Thus, the promotion of FP has not been a straightforward process (Green and Biddlecom 2000) and using a simplified model to investigate and understand source preference and favoured advice givers in rural communities, revealed in this study to be influenced by environmental (culture, religion, occupation, age) personal factors (self-efficacy, cognitive dissonance, stress) and source credibility would have been limited by the linear nature of Wilson's model of information behaviour.

Although Wilson's model highlights these factors, they are categorised as intervening variables "Demographic, psychological and environmental factors", with no specific emphasis placed on culture, religion, education and economic factors – all of which were relevant emerging themes in this study. These factors were prioritised in the design of the interview schedule and data collection due to the emphasis placed on them by the ISCM model.

On the other hand, Chatman's (1996) concepts of secrecy, deception and the existence of two worlds (insider and outsider) in the conceptual framework of information poverty were relevant in understanding and interpreting some of the findings in this study. However the propositions of the theory centred on barriers to information-sharing emanating from the fear of ridicule and insecurity was inappropriate to achieving the aim of this study which was to examine rural dweller's motivation to prioritise and utilise certain FP information sources over others, in addition, information–sharing was a common practice found among the people of Zaria. The examination of the concepts of secrecy, deception, situational relevance and risk-taking were considered as factors contributing to information poverty, but these concepts were found limiting to in-depth investigation of the significant context-specific factors (culture, religion, patriarchy, gender, accessibility and socio-economic status) inhibiting rural dwellers from 'seeking' rather than 'sharing' information and using specific sources as presented in the ISCM model.

For the reasons above, these models (while relevant) had limitations as an overarching conceptual framework.

7.4 Recommendations

Recommendation 1:

Public information on FP disseminated in rural areas should adopt a community-based approach by using information sources accessed by rural people in the community for everyday information seeking. While it is vital to recognise the importance of informal, traditional sources, such as family and friends, it is, however, equally important that more *formal* sources, such as health centres, are built and fully equipped within reasonable distances of travel of rural communities, to encourage utilisation of services by reducing the associated costs. Given that rural men and women show a strong preference for the use of word-of-mouth and interpersonal communication to relay information, routine door-to-door visits from qualified professionals can be used to better engage with target households.

Health workers should also be trained to provide accurate information and regularly highlight and explain the benefits, as well as any side-effects, of FP. Efforts should also be made by employers (including local and central government) to maintain continuity and permanency among their outreach workers, as men and women in rural areas have been shown to attach significance to building on-going relationships as a means of winning their trust.

Recommendation 2

Information on family planning should be re-packaged to reflect elements which justify its use culturally and religiously. Women should also be encouraged to get an education or engage in trade that will yield substantial income; men should also be encouraged to permit women to do so. Village heads, religious clerics and other respected stakeholders in rural communities can also be used for this advocacy strategy.

Recommendation 3

The Nigerian government needs to regain the trust of rural communities to promote FP successfully. This can be achieved by providing for their day-to-day health needs as proof of interest in their wellbeing. By earning rural communities' trust in this way, the government would find it easier to convince and penetrate rural communities to use FP information. The Nigerian government should also take up FP initiatives using the Nation radio (Federal Radio Corporation) and television stations (Nigerian Television Authority), thereby demonstrating the significance of family planning to the people's welfare and countering the existing perception of reliance and dependence on international bodies (NGOs). Forums and group chats or radio programmes should be consistent and could include people's narratives of their FP experience; this may increase the use of radio for information on FP, considering the current information sharing pattern in rural communities.

Recommendation 4

Gender and marital status should be considered in the packaging and dissemination of FP information and channels used for this purpose. Gender and marital status of the sexually active groups should guide the production of FP messages; this will limit the barriers to accessibility of FP placed by these factors.

Recommendation 5:

Considering that the first point of contact for men and women are their family and friends, it is vital to educate the community on FP. As suggested by one of the participants, the public address system used by traditional medicine men in marketing herbs and religious clerics and organisations in preaching can also be used to deliver information on FP around the community. That way, the majority of the community members, including singles, are made aware, and children start learning about FP at an early age. By so doing, children become appropriate FP information sources to others and younger community members when they grow older.

Recommendation 6:

FP information should centre on the cultural, health and religious barriers, and provide explanations surrounding the everyday challenges faced by men and women as well as their fears about FP, and solutions and advice should be produced using these identified barriers.

7.5 Limitations of Study and Future Research

Although the use of the ISCM model as a conceptual framework has enabled this study to generate rich data in relation to identifying the factors affecting the use of FP information and sources in Zaria. However, before implementing its recommendations for future FP programmes and services across northern Nigeria (or Zaria), it would be wise to conduct a wider-scale study - to ensure that these findings are not context-specific to people of Gyallesu and Samaru.

Even though the ISCM model provided a useful framework for investigating the cultural, religious and accessibility factors influencing the FP IB of rural men and women, future research might also look to extend the scope of the ISCM model to further investigate the distinction between passive and active information-seekers (Wilson 1996) and Chatman's (1996) concepts of "insider and outsider".

Future studies should also carry out a more in-depth investigation into men's reasons for preventing or deterring their wives from using FP, where this continues to be the case. In addition, a more in-depth project/PhD thesis would contain more systematic, thorough and all-encompassing discourse analysis – including of the leading media sources to which respondents are exposed.

7.6 Conclusion

This thesis provides a detailed overview of the factors affecting the information behaviour of men and women in rural areas of Zaria and identifies a need to use more culturally-specific, and gender-orientated/appropriate, sources and channels to promote wider take-up of FP information. It also identifies a need for FP information that is accessible to rural men and women by proximity and using language, format and sources favoured by rural-dwellers in accessing everyday information. The FP information behaviour of married men and women in this study was also revealed to be predominantly informal and semi-formal (patent stores and medical experts consulted outside their place of work) – suggesting that government attempts to engage with individuals and families on their terms, rather than using more formal and/or conventional governmental approaches, might be the most effective way to engage them with FP practices.

More broadly, the findings demonstrate how issues of gender, religion, language, culture, financial and geographical accessibility shape the information behaviours of rural men and women. Women tended to privilege received wisdom from other women (especially their mothers), while advice imparted by male figures of ‘authority’ into the broader community was favoured by men. Women conceived of their preferred sources more in terms of ‘trust and rapport’ than ‘authority’: a significant conceptual distinction which might relate to the patriarchal exercise of power and influence in these communities.

The study recommends the development of new Nigerian government strategies to provide targeted FP information adapted to appropriate formats which take account of differences in language, gender, culture and religion, and ensure that information is available from outlets and venues located within reachable distances of rural communities. It suggests that this will encourage its more widespread adoption among rural-dwellers. Moreover, by collaborating more meaningfully and proactively with community stakeholders (village heads, religious clerics, older women), the government can encourage greater FP adoption.

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Appendices

Appendix 1: Demographics of Interviewees

Interviewee Code	Sex	Age	Marital Status	Educational Qualification	Ethnicity	Religion	Occupation
IDI 1	Male	18-27	Single	College	Hausa	Christian	Student
IDI 2	Male	37-46	Married	Islamic Edu	Hausa	Muslim	Farmer
IDI3	Male	28-36	Married	Tertiary	Jaba/Hausa	Christian	Government worker
IDI 4	Male	18-27	Married	Secondary	Yoruba	Muslim	Trader
IDI 5	Male	47-55	Married	Secondary	Hausa	Muslim	Farmer
Molly	Female	34-41	Married	Tertiary	HAUSA/Fulani	Christian	Government Worker
Hapizah	Female	34-41	Married	Tertiary	Hausa	Muslim	Unemployed
Tandatu	Female	18-25	Married	Primary	Hausa	Muslin	Petty trade
Zahra	Female	26-33	Married	Secondary	Hausa	Muslim	Petty trader
Kulu	Female	42-49	Married	Secondary	Hausa	Muslim	Petty trade
Doroti	Female	18-25	Single	Secondary	Igbo	Christian	Petty trader
Hafsa	Female	26-33	Single	Secondary	Hausa	Muslim	Petty trade

Appendix 2: Family planning Methods Available in Zaria

Women.

Female condoms- Short-acting methods.

Pill – Short-acting method, taken every day.

Injectable- Effective short-acting method lasts 2-3 months.

Implant- Effective long-acting method, lasts 3-5 years.

Intra-Uterine Device- can last 5-10 years.

Tubal Litigation- Permanent method.

Men.

- Male condoms- Short Acting Method.
- Vasectomy- Permanent Method.

Appendix 3: Participant interview Guide and Consent Form

Interview Participant Guide

Purpose of the Study

The study specifically seeks to identify health information needs and the criteria/determinants for choosing health information sources with a focus on trustworthiness and credibility of the source.

What will you have to do and how long will it take? The researcher wishes to interview you. This should take no longer than 1 hour and will take place at your desired time over the phone (if safe and void of interruption). The interview will be recorded. You will be asked to give consent before the meeting.

What will happen to the information collected? The researcher will study, analyse and provide findings based on what you have said. The findings will help to understand the situation under study, and to obtain a master's in research (MRES). Only the researcher and supervisor (if applicable) will be privy to the notes, documents and recordings. The researcher will keep transcriptions of the recordings and a copy of the paper but will treat them with the strictest confidentiality. No participants will be identified in the publications and every effort.

Will be made to disguise your identity. At the end of the study, notes will be destroyed, and recordings erased. Declaration to participants If you take part in the survey, you have the right to:

- Refuse to answer any question, and to withdraw from the study at any time (including after the interview or focus group has been completed).
- Ask any further questions about the research that occurs to you during your participation.
- Be given access to a summary of findings from the survey when it is concluded.

What will happen to the information collected? The researcher will study, analyse and provide findings based on what you have said. The results will help to understand the situation under study, and to achieve a doctoral degree [PhD]. Only the researcher and his supervisor (if applicable) will be privy to the notes, documents and recordings. The researcher will keep transcriptions of the recordings and a copy of the paper but will treat them with the strictest confidentiality. No participants will be identified in the publications, and every effort.

will be made to disguise your identity. At the end of the study, notes will be destroyed, and recordings erased. Declaration to participants If you take part in the study, you have the right to:

- Refuse to answer any question, and to withdraw from the study at any time (including after the interview or focus group has been completed).
- Ask any further questions about the research that occurs to you during your participation.
- Be given access to a summary of findings from the study when it is concluded.

Who is responsible?

If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

The Researcher: Malatl Hellandendu m.m.hellandendu@rgu.ac.uk
School of Creative and Cultural Business,
Robert Gordon University,
Garthdee Road, Aberdeen AB10 7QE.

Consent Form for Participants

I have read the Participant Information Sheet for this study, and the details of the study explained to me. I am satisfied with the answers to my questions, and I understand that I am free to ask further questions at any point during or after the interview, decide not to answer specific questions or withdraw from the study. I can remove any information I have provided up until the researcher has commenced analysis on my data. I agree to provide information to the researchers under the condition of anonymity and confidentiality as set out in the participant information sheet. I give consent to the recording of my responses by the researcher.

Signed: ____

Name: ____

Date: ____

Researcher Malatl Mary-Anne Hellandendu

Supervisor Dr James Morrison (Reader in information Journalism)

Information Management Department,

School of Creative and Cultural Business,

Robert Gordon University,

Garthdee Road, Aberdeen AB10 7QE.

Appendix B: Interview Schedule

1. What age group do you belong?
   18-25
   26– 33
   34– 41
   42– 49

2. What is your marital status? Answer …………………………..…
3. What are your place of residence and native language? Answer............
4. What other languages can you speak? Answer..............................
5. What is your religion? Answer ……………………………………………………………….
6. What is your occupation? Answer ………………………………………………………….
7. What is your highest level of education? Answer ………………………………….
8. What is the common health information needs men/women show concern about in your community?

9. When you need information on health issues who do you ask/go to? (Probe: why those sources)?
10. Could you please describe your experience with the sources you approached? (Probe; why did you use/neglect the information from the source)?

11. Were there any challenges you faced in using these sources to obtain the health information you needed (Probe: what can be done to remove such barriers)?

12. What are the problems that hinder you from seeking health information in this community?
13. How often do you receive health information in a year in this community, and why (Probe: do health workers visit this community at all)?
14. What comes to your mind when you hear family planning (Probe: What is it like getting health information on Family Planning)?
15. If a health provider/someone/ government wanted to disseminate information on family planning in your community, how would you suggest they go about it? (Probe: why)?

16. If someone wants to provide health information to all the men and women in this community, will you suggest using the same medium for both (Probe: If YES why; if No How would you advise they go about it and why)?

17. In your opinion when do people look for information on family planning, and how do they go about sourcing this information (Probe: What are the attributes your source must have)?
18. What will make you reject or accept information on family planning/ any health information (Probe: How do you decide the relevance of the information to you)?
19. Which of the following electronic devices (e.g. Radio, Television and Mobile Phone) do you have, and what do you use them for?
20. Is the information you receive on family planning usually in the language you understand?
21. Does your language or belief determine where and whom you get information from about your health (Probe: why)?

22. When you are given information that is not in your native language, what do you usually do?
23. If you receive information that does not support or is contrary to your belief, what do you do (Probe: why)?
24. What are the things you believe about family planning (Probe: Why do you believe this)?

25. Do you believe you can control your wellbeing and the number of children you can have by accessing information on family planning (Probe: why and how far will you go to obtain such information)?
26. How do you think the information can be packaged to reflect your culture and to make the information understandable, acceptable and more useful to encourage adoption of Family Planning in your community?
27. What type of information about family planning can you recall listening to on radio, TV or any place (Probe: did you understand/believe it, and why)?
28. Does providing information through the community leaders, radio, TV or any other means make any difference on the value of the information (Probe: what difference)?
29. Have you looked for information about family planning in the past (Probe: what was the prompt/ was there any difficulty accessing it and why)?
30. In what modes or formats did you get it (Probe: Was the information understandable and what better ways would you suggest if NO)?
31. If you want to get married/ when you wanted to get married, who did you talk to first/ (Probe: Why?)