



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 10, Issue, 05, pp. 35879-35895, May, 2020

<https://doi.org/10.37118/ijdr.18662.05.2020>



RESEARCH ARTICLE

OPEN ACCESS

IMPACT OF SOCIO-DEMOGRAPHIC FACTORS ON THE USE OF CONTRACEPTIVES AMONGST WOMEN IN STABLE MARITAL UNIONS IN GWAGWALADA AREA COUNCIL ABUJA

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ARTICLE INFO

Article History:

Received 27th February, 2020
Received in revised form
17th March, 2020
Accepted 11th April, 2020
Published online 30th May, 2020

Key Words:

Contraceptives, Family planning, Stable marital unions, Accessibility, Affordability.

ABSTRACT

The paper focuses on the impact of socio-demographic factors on the use of contraceptives amongst women in stable marital unions in Gwagwalada area council of Nigeria's Federal Capital Territory, Abuja by assessing and describing the types of contraceptives methods used, determining the rate of contraceptive use and investigating how socio-demographic factors affect the utilization of contraceptives. Quantitative methods were used to collect data from 383 married women residing in the ten wards that make up Gwagwalada area council, while the in-depth interview was the qualitative method used to collect information and data from the healthcare providers. Chi-square was used to test the significance of the variables while logistic regression models were used to assess the extent and impact of these variables. Mean age of respondents sampled was 29.8 years. Current rate of contraceptive use was 33.4%, and the most commonly used modern method was the injectables (15.2%), while the most commonly used traditional method was the withdrawal method (8.6%). From the calculated Chi-square; age, religion, place of residence, education, occupation and income were reported to have a significant relationship with contraceptive use while number of children was reported to be insignificant. Analysis of logistic regression indicates, that religious affiliation of the respondents had the strongest impact on contraceptive use while the place of residence of respondents had the weakest impact. Results of the in-depth interview indicates that quality of information, accessibility, availability, affordability, religion, educational level, residence, income and occupation were reported to determine the use of contraceptives by women in stable marital unions. The study therefore recommends full integration of women empowerment programmes into family planning programmes, organize health education and enlightenment campaigns, while religious leaders need to emphasize the importance of family planning, there is also the need to emphasize the training and re-training of healthcare workers in order to address the problem of poor quality of information and knowledge. Intervention plans need to be initiated and put in place to address the problem of stock-outs, low subsidy and availability of all contraceptive types in Gwagwalada area council.

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Citation: Dr. Igbolo, Magdalene Agbor and Ausa Daniel Onuche. "Impact of socio-demographic factors on the use of contraceptives amongst women in stable marital unions in gwagwalada area council Abuja", *International Journal of Development Research*, 10, (05), 35879-35895.

INTRODUCTION

Family planning is the conscious effort by a couple to limit or space the number of children they want to have through the use of contraceptive methods (NDHS, 2013). The rate of contraceptive usage and the unmet needs for family planning are key indicators for measuring improvements in access to reproductive health (United Nations, 2016). According to the Merriam-Webster Dictionary, contraception is the deliberate prevention of conception or impregnation and the word was first used in 1886.

Contraceptive methods as a major component of family planning are a key constituent of health services and it benefits the health and wellbeing of women, men, children, families, and their communities. The widespread adoption of family planning represents one of the most dramatic changes of the 20th century and as a result of this growing use, contraception around the world has given couples the opportunity to choose the spacing and number of their children which has brought tremendous life saving benefits. The world's total fertility rate has dropped dramatically, from 5 children per woman in the

early 1950s to 2.6 children per woman today (UNFPA, 2007), largely owing to more widespread use of modern contraceptives, especially in the developing world (Bongaarts, 1997 cited in WHO bulletin, 2011). In Africa, 1 in 26 women of reproductive age dies from a maternal cause, as opposed to 1 in 9400 in Europe (World population data sheet, 2009). The modern contraceptive prevalence rates vary widely across the African region and parallel disparities in fertility and in contraceptive use are found between poor and wealthy countries. In 1990 a survey was carried out among developing countries and it was revealed that total fertility rate (TFR) was highest in the sub-Saharan Africa at an average of 5.3 children per woman (Olalekan, Asekun-Olarinmoye, Olusegun, and Olugbenga, 2011; Igbole and Gyong, 2017). Among the black nations in the world today, Nigeria is the most populous and the 2014 estimate indicates a total population of 190 million people with a growth rate of 2.6% and a TFR of 5.53 (World Bank Group, 2019). These statistics are obviously indicators of an impending population explosion if measures for checks are not considered. According to the United Nations, (2013), population projection, Nigerian population is expected to hit 440 million by 2050, making it 40 million more than the projected population of United States and becoming the third largest population in the world (as cited in The Nation Online, 2013). Studies have shown that certain socio-demographic factors are responsible for low rate of acceptance and use of contraceptives in Nigeria and sub-Saharan Africa. According to Kelly, Morgan, Bonnefoy, Butt, Bergman, (2007), they include factors such as marital status, culture, religion, education, tribe and occupation (as cited in Agbo, Ogbonna, Okeahialam, 2013). According to Malini, Narayanan, (2014) and Gaetano, Lutuf, Zaake, Annika, (2014), lack of access and the unavailability of family planning services has resulted to low uptake and even though they are available, there are issues about women not being properly educated or counselled about the various forms of family planning methods and their various side effects (as cited in Apanga, Adam, 2015). For example studies by Kabagenyi, Jennings, Reid, Nalwadda, Ntozi, Atuyambe, (2014) have shown that in Uganda women stopped using contraceptives after they experienced what they perceive to be side effects of contraceptives (as cited in Apanga *et al*, 2015).

Global health has improved considerably over the last four decades, but everywhere the health status of the poor compares unfavourably with that of the more affluent sectors of the society (Ahmed, Gillespie, Tui, 1999). In 2015 a conference was hosted by the Nigerian Federal Ministry of Health (FMOH) in partnership with the United Nations Population Fund (UNFPA), to review the family planning outlook in Nigeria, and to develop strategies to meet the targeted 36% contraceptive prevalence rate set by the FMOH, by 2018. Federal government therefore reiterated its commitment to the provision of unhindered access to family planning commodities and supplies. Increase in contraceptive demand, access, and uptake are key interventions to improve maternal health outcomes and ultimately reduce maternal deaths (Austin, 2015). It was estimated that family planning use averted almost 272,000 maternal deaths, globally, in 2010 (Ahmed, Li, Liu, Tsui, 2012 as cited in Austin, 2015). According to NDHS, (2013), only 1.7% of women with no education were using modern methods of contraception as compared to 1.8% of women with at least some secondary education. Hence, it has been proven from several studies that women empowerment has a direct impact on women's fertility

choices. Women's empowerment is defined by Kabeer (1999) as, a process by which those who have been denied the ability to make a strategic life choices acquire such ability (as cited in., Tadesse, Teklie, Yazew, Gebreselassie, 2013).

The Research Problem

Each year more than 75 million women worldwide experience an unintended pregnancy. For many of these women contraception has not been available or easily accessible (Henshaw, 1990, as cited in Tropical Medicine and International Health). Unwanted pregnancies happen for other reasons such as rape and little or no knowledge about contraceptive usage. At times, unintended pregnancies are not carried to full term, but aborted quite often in unhygienic condition leading to serious consequences and complications. Worldwide, it is estimated that about 46 million pregnancies (22% of total pregnancies and 61% of unintended pregnancies) are aborted (Adhikari, 2009 as cited in Tiwari, 2012). The use of nearly all methods of modern contraception requires contact with a qualified health worker such as the doctor, nurse, midwife, community health worker, or pharmacist. And as a result, access to these trained health workers is a principal determinant of supply of family planning service. Although 13% of the world's population is located in sub-Saharan Africa, less than 3% of the world's health workers are located on the Sub Saharan subcontinent according to the most recent estimates (World Health Organization, 2006, as cited in Pacqué, *et al*, 2013). Lack of access to health workers is especially acute in sub-Saharan Africa where only 19% of married women use a modern method of contraception, the lowest regional contraceptive prevalence rate in the world (Population Reference Bureau, 2011, as cited in Pacqué, *et al*, 2013). In Nigeria, A woman's chance of dying from pregnancy and childbirth is 1 in 13 (UNICEF, 2015). While many of these deaths are preventable, the coverage and quality of health care services in Nigeria continues to fail women and children. Presently, less than 20 per cent of health facilities offer emergency obstetric care and only 35 per cent of deliveries are attended to by skilled birth attendants (UNICEF, 2015).

Table 1. Nigeria Health Manpower

Staff Category	Numbers	Per 100,000
Physicians	39,210	30
Nurses	124,626	100
Midwives	88,796	68
Pharmacist	12,072	11
Medical Lab. Technicians	3,059	3
Radiographers	519	0.42
Primary Care Workers	117,568	93

Source: Ajovi Scott-Emuakpor, 2010

World Health Organisation recommends doctor to patient ratio to be 1:600, but on the contrary Nigerian doctor to patient ratio stands at a dismal figure of 1:6,000 (The Guardian, 2018). Therefore, the spate of poor medical facilities, lack of qualified health personnel and insufficient Primary Healthcare centres are amongst the major setbacks contributing to the poor maternal health and high infant mortality rate in Nigeria. As contained in 'opinion Nigeria', (2013), the review of Millennium Development Goals showed that poor medical facilities and poorly qualified doctors and nurses are a major contributing factors to the slow progress in meeting the outlined targets of goal five which is to improve maternal health. In the month of July 2015, Director of PACT Nigeria, Dr Audu Liman maintained that Nigeria wasn't among the

countries that will meet the 2015 Millennium Development Goals of the United Nations. Every single day, Nigeria loses about 2,300 under-five year olds and 145 women of childbearing age. This makes the country the second largest contributor to the under-five and maternal mortality rate in the world (UNICEF, 2015). The deaths of newborn babies in Nigeria represent a quarter of the total number of deaths of children under-five and majority of these deaths occur within the first week of life (UNICEF, 2015). Nigeria is also among the few countries in Sub-Saharan Africa with consistently low contraceptive use of 15% among married women whose average fertility rate is 5.5 from the 2013 Nigeria Demographic and Health Survey (NDHS) report. From geo-political zones in Nigeria, there are fertility differentials to indicate number of births per woman which are: North-Central 5.3%, North-East 6.3%, North-West 6.7%, South-East 4.7%, South-South 4.3%, South-West 4.6% (NDHS, 2013). The NDHS report showed that while fertility rate of 5.5 in 2013 was a slight drop from previous years of 5.7 in 2003 and 2008, contraceptive use has experienced only a gradual increase of 2% from 2003 figures. The use of any method of contraception among married women also varies across geo-political zones in Nigeria with north-central having a percentage distribution of 15.6 %, north-east 3.2%, north-west 4.3 %, south-east 29.3%, south-south 28.1%, south-west 38.0% (NDHS, 2013). According to Blanc (2009), in developing countries, contraceptive use among young women, whether married or unmarried, involves a lot of experimentation and is inconsistent. Additionally, young women face many barriers to the use of family planning services, which include fear, embarrassment, cost, and lack of knowledge (Blanc, 2009). In some developed, modernized, healthier, better fed and prosperous countries in Western Europe, the population growth rate has diminished with low fertility rates as men and woman have chosen to have fewer children and by using birth control methods. This has resulted to having smaller families. In contrast, in most developing countries like Nigeria, the birth rates remain high with poor health conditions, inadequate food, environment in peril, and economic hardships. Only a few couples limit the size of their families in line with the 2004 National population policy objective that aims to see a total fertility rate decline of 0.6 children or less every five years. Fumilayo (1985) identified family planning problems as 'generic' barriers to the acceptance of contraceptive methods in Nigeria and grouped them into political, cultural, doctrinal prejudice, educational and fear of side effect. According to The Guardian report, (2011), more than 215 million women who want to plan their families or protect themselves from unplanned pregnancy still do not have access to basic family planning services. Also private sector facilities continue to be the major providers of contraceptive methods in Nigeria; 60% of users of modern contraceptives obtain them from private sector (NDHS, 2013). These are problems that need to be addressed by embarking on empirical study which has necessitated study of the influences of socio-demographic factors that affects the acceptance and use of contraceptives among women in stable marital unions in Gwagwalada area council.

Research objectives

- To determine the extent of use of contraceptive methods amongst women in stable marital unions in Gwagwalada area council.

- To examine the factors that influences the acceptance and use of contraceptive methods amongst women in stable marital unions in Gwagwalada area council.
- To determine the rate of use of contraceptive methods amongst women in stable marital unions in Gwagwalada Area Council.
- To determine the relationship between socio-demographic factors and use of contraceptive methods amongst women in stable marital unions in Gwagwalada Area Council.
- To examine the impact of socio-cultural factors on the use of contraceptive methods amongst women in stable marital unions in Gwagwalada Area Council.

Literature Review: The Concept of Contraceptives

Contraceptive is an activity that prevents a woman from getting pregnant before, during or after insemination of sperm. Contraception (birth control) prevents pregnancy by interfering with the normal process of [ovulation](#), fertilization, and implantation (Encyclopedia of Children's Health, 2018). There are different kinds of birth control that act at different points in the process. Contraception can be defined as the performance of sexual intercourse with the deliberate intention of rendering infertile an act which could be fertile (Ashley, and Kelvin, 1997, as cited in Lemba, 2014). Put differently, contraceptive can also mean birth control. Birth control as a term describes things that can stop a woman or girl from becoming pregnant, also known as contraception. Birth control can also mean a wide range of things. Contraceptives are therefore, used to reduce the chances of girls or women from becoming pregnant. Use of contraceptive methods among women in stable marital unions may be influenced by a number of factors which are considered as independent variables in this study. They include socio-demographic variables such as education, age, religion, husband's occupation, monthly family income, the woman's occupation and cost. Age can be associated with contraceptive use as different age groups have different perception about contraception and needs. For example women in the mid-twenties who are in stable marital union are likely not to use contraceptive methods because it is the likely period to bear children. However, women with advanced age above forty are likely to use contraceptives. Also, women with higher education level are better informed than women with lower education; and therefore likely to make use of contraceptives. In addition, occupation is likely to influence the use of contraceptives because job requirement and condition may necessitate delay or limit in conception. Also that religious belief may discourage women and their partners from using contraceptive methods.

Furthermore, mediating factors such as spousal communication, knowledge of contraceptive, exposure to mass media, availability, affordability and access to contraceptive services are important as they facilitate the link between the independent and dependent variables. In this study, socio-cultural factors such as husband's approval and cultural beliefs play tremendous role in determining contraceptive use. Cultural orientation may encourage or discourage women from using contraceptives. Cultural reasoning has fostered high fertility and has tremendously contributed to low use of family planning methods in most African societies. The contraceptive behaviour of women has been largely influenced by cultural norms and practices such as early marriage, high fertility

aspiration, son preference and spousal and familial opposition to family planning.

Types of Contraceptive Methods: People everywhere have developed various means of family planning methods (Malthus, 1852), in fertility regulation, for reasons such as ensuring better maternal/infant health, paternal care for children, reducing the burden of poverty, improving standard of living, education for wards, maternal adjustment between couples and welfare for the community and the nation at large (Delano, 1990 as cited in Ahmed-Adams, 2012). According to Eunice Kennedy (2012), in contraception and birth control, not all contraceptive methods are appropriate for all situations, and the most appropriate method of birth control depends on a woman's overall health status, age, frequency of sexual activity, number of sexual partners, desire to have children in the future as well as family history of certain diseases (as cited in Abiodun, 2012). Individuals should consult their health care providers to determine and ascertain which method of birth control is best for them. Some of these factors can be associated with risks, although those risks are elevated with pregnancy and may be higher than the risks associated with the various methods. However, there are many contraceptive drugs and devices, and for better understanding they will be classified as modern and traditional contraceptives in line with the (2013) NDHS survey. Contraceptive methods are classified as modern or traditional methods.

Modern methods include:

- Female sterilization
- Male sterilisation
- Pills
- Intrauterine device (IUD)
- Injectables
- Implants
- Male condoms
- Female condoms
- Diaphragm
- Foam/jelly
- Lactational amenorrhoea method (LAM)
- Emergency contraception.

The traditional methods include:

- Rhythm (periodic abstinence)
- Withdrawal methods

Provision would also be made in the questionnaire to record any other methods mentioned by the respondents, including folk methods such as strings and herbs. For instance, on the account of Delano (1990), our forefathers recognized the need for spacing childbirth through traditional methods they were able to develop. These methods had been handed down either by word of mouth or in writing from generation to generation. Quite a number of fertility regulation methods were used beginning from methods that were termed as crude methods which later form part of the traditional methods.

According to Delano (1990), these include:

- a. Women avoiding the sun or moon
- b. Women wearing objects such as charms, dead spiders, child's tooth, rings on fingers

- c. Women drinking tea made from various kinds of roots, weeds trees, leaves, infusion of gunpowder; froth from camel's mouth, water used in washing dead bodies and deadly poisons, such as arsenic
- d. Women eating seeds of castor oil or dead bees
- e. Women performing various exercises to either dislodge sperm, or prevent its entry through the cervix to meet with the female egg. For example, by jumping up and down;
- f. Violent movements of the body during intercourse to prevent sperm entry into cervix;
- g. The woman being requested to hold her breath during man's orgasm, hoping that a muscular spasm would be created thus preventing sperm entry.
- h. Sneezing and blowing one's nose forcefully immediately after intercourse to dislodge sperm.
- i. Soaking cotton wool in pepper and inserting it into the vagina as mechanical and chemical barrier method.
- j. Mopping out the sperm from the vagina vigorously to kill and remove sperm to wash out sperm.
- k. Douching with various chemicals
- l. Withdrawal method by man
- m. Holding down the man and crushing his testicles with a stone.
- n. Using animal membranes to cover the man's penis and goats bladder as condom to cover the vagina
- o. Procuring of abortions
- p. infanticide

These methods were used in various part of the world such as ancient Rome, Egypt, India etc (Golden, 1986; Schenker and Rabenou, 1993) depending on their socio-cultural attitudes and beliefs and quite a few of them are still in use till date. They form part of what is now known as traditional methods of fertility regulation.

Uses of Contraceptive Methods

Avong (1999) conducted a study relating to the reproductive health issues of the Atyap people in Kaduna State and discovered that about 98% of those interviewed knew one form of family planning or the other, yet majority do not practice it for a number of reasons ranging from side effects of hormonal contraceptives, cultural and religious inhibitions (as cited in Ahmed-Adams, 2012). Gbolahan and James (1988) studied contraceptive attitude and practice of 1,022 men in Ilorin Nigeria and found out that most of these men have knowledge about contraceptives, especially condom and oral contraceptives yet less than half of them practice any form of contraception (as cited in Ahmed-Adams, 2012). Statistics of contraceptive prevalence in 53 African countries, shows that Nigeria has 15% contraceptive prevalence rate, unlike other African countries like Madagascar with 40%, Malawi 46%, Botswana 53%, Egypt 60%, Kenya 46%, Tunisia 63%, Zimbabwe 59%, Namibia and Swaziland with 55% and 65% respectively (World Health Statistics, 2015).

Furthermore, in the traffic-coding assessment, a snapshot of Nigeria's MDG's end-point report indicated weak progress in the unmet need for family planning. Also, in the report of the Nigeria's MDG progress, the remark for the indicator on contraceptive prevalence showed that it was also weak (Ogenyi, 2015). Therefore, an understanding of the factors that influence contraceptive use is crucial to all the efforts put in place to produce programmes that will increase prevalence

(Oyedokun, 2007, as cited in Oladosuet *al*, 2016). The total fertility rate in Nigeria has been consistently high and stands at 5.5 births per women. Some level of increase in the use of contraceptive methods has been registered in Nigeria. Studies on population regulatory technology amongst couples in Gwagwalada township wards reported that out of 262 couples using contraceptives, most of them used the male condom (35.1%), pill (15.6%) and injection (15.6%), while the withdrawal method was rated 14.5% (Oyeyinka, and Adenyuma, 2016). According to NDHS 2013, 16% of all women with age 15-49 are using contraceptive methods, of which 15.1% are currently married women; and 68.1% are sexually active unmarried women. Also, 9.8% of married women use any modern method while 5.4% are known to use any traditional method. See table 2.2.4. The majority of women who are using a contraceptive method use modern method 11.1% and also the use of modern contraceptive methods decreased by 12.9% from 24% in 2008 to 11.1% in 2013 (NDHS, 2008; NDHS, 2013). About 4.8% of women use traditional methods. The most used methods are male condom (4.5%), injectables (2.5%) and withdrawal (2.2%). The most common family planning methods are the pill, injectable, permanent methods, condoms and traditional methods. According to NDHS 2013, only 1.7% of women with no education were using modern methods of contraception as compared to 18.7% of women with at least some secondary education. Contraceptive use also increases rapidly as the number of living children increases, picking at 20.9% for women with 3 to 4 children. It also increases with the wealth quintile, from 1.7% of women in the lowest quintile to 36.7% women in the highest quintile.

The use of contraceptive methods among women continues to face challenges in meeting clients' expectations and needs. Despite high knowledge on contraceptives (85.2%), only less than one fifth of the married women (15.1%) use any method of contraception. Currently usage of modern contraception is higher among sexually active unmarried women than among married women (54.9% and 9.8%, respectively). Currently, married women have 16% unmet needs for family planning. Other challenges include low acceptance of modern Family Planning methods which is currently 15.1% for married women aged 15-49 years, erratic supplies of contraceptives with limited choices and provider biases to make informed choices. Uptake of contraceptive methods is limited by spousal communication, inadequate male involvement and misconception on the modern contraceptive methods. In FCT, married women using any method have a CPR of 25.2%, which is second after Kwara (40.2%) in the north-central geopolitical zone. Nationally, Lagos state has the highest CPR of 48.3% while Kano has the lowest, 0.6%. The percentage of married women using modern method in the FCT is 20.6% (NDHS, 2013).

Socio-Demographic Factors and use of contraceptives:

Some researchers have different opinions and perspectives on the exact factors that affect contraceptive use and fertility behaviour, but there is a general consensus that socio-economic, demographical factors and attitude of women are key to the use of contraceptive in less developed countries where fertility rate is still high. Socio-demographic factors include:

Education: The relationship between educational attainment and use of contraceptives has documented in several literature.

Scholars and researchers have found that the more educated a woman is the more likely she will use contraceptives. Women with higher educational levels are better informed and have better access to contraception than women with lower levels of education and therefore more likely to use family planning services (Allman, Nhan, Thang, San, & Man, 1991; Bongaartset *al.*, 1984; National Committee for Population, Family and Children & ORC Macro, 2003; Nguyen Van Phai, 1998, as cited in Tran, 2015). Furthermore, female education can influence contraceptive use in the following ways; when one has greater knowledge they tend to have access to modern methods, and when they go into marriage they are exposed to new ideas on small family size. Through an improvement in women's employment status and educational level, women get empowered and are able to engage in meaningful economic activities (Indongo, 2007).

Studies India have shown that woman's education has the strongest predictor of use of contraceptive methods (Das, Mishra, and Saha, 2001 as cited in Michael, 2012). In a study in Sudan, it has clearly been evidenced that knowledge of contraceptives use among Sudanese women is far from being universal. Although education was associated with increase in the use of modern family planning methods, a drop was noticed in women with University and higher education. This might partly be explained by the fact that these women start their family life after their education, i.e. at a later age, and try to have the number of children they wish before their menopause begins. The likelihood of use of contraceptive methods is higher for those with higher parity in literacy. (Ibnouf, Van den Borne, and Maars, 2007; Giza, and Regassa, 2011, as cited in Michael, 2012). Apparently, increased educational attainment influences patronage of health service use in several ways, including an increased woman's decision making power and awareness of health services, changing marriage patterns and creating shifts in household dynamics (Obermeyer, 1993, as cited in Indongo, 2000). This explains why fertility rate of 4.3 is low in south-south Nigeria where women are more educated and empowered and fertility rate of 6.7 is highest in the north-west where women suffer educational set-back and low empowerment. In their work, Ejembi, Dahiru, and Aliyu, (2015) explored the role of contextual factors in determining use of modern contraceptives in Nigeria. The study used Secondary data from the 2013 Nigeria Demographic and Health Survey (NDHS) among women aged 15-49. The result showed that, generally in Nigeria, individual and community level variables accounted for 82% of the variations in contraceptive use in Nigeria. The contextual factors found to be positively associated with use of modern contraceptives were female education, female autonomy and access to health facilities (as cited in Oladosu, *etal* 2016).

Fertility differentials by education and wealth are noticeable. Nationally, women who have no formal education and women in the lowest wealth quintile on average are having 6.9 and 7 children respectively, while women with higher than a secondary education are having 3.1 children and women in the highest wealth quintile are having 3.9 children (NDHS, 2013). Also, 2.7% of married women with no education are reported to be using any type of contraceptive while 1.7% of married women in the lowest wealth quintile are reported to be using contraceptives (NDHS, 2013). Baale (2011) used the Uganda Demographic and Health Survey of 2006 to examine the relationship between female education, contraceptive use and

fertility rates in Uganda. His findings revealed that female education, especially at the secondary and post-secondary levels, increases the likelihood of using contraception. However, according to Zlidar (2000), increases in education are not always preconditions that contraceptive use will increase as some studies have demonstrated. In some studies, contraceptive use has been uniform regardless of educational attainment, for example China (Poston, 1986; Boaching and Zhenmig, 2003, as cited in Lemba, 2014).

b. Occupation and Income: In one Yemeni study, parity, age, marital status, religion, husband's education, husband's occupation, monthly family income, and woman's occupation were found to be associated with use of contraceptive methods (Almuallm, 2007 as cited in Michael, 2012). Evidence from NDHS (2008) reported that women who were working were 43% more likely to use contraceptives (as cited in Igbodekwel, Oladimeji, Kelechi, Oladimeji, Ikeola, Akpa, and Lovett, 2014). According to Nazmul, (2011), the employment factor increased the status of women and gives them a higher sense of freedom in the decision making process in the family. Socio-demographic and economic indicators such as urban residence, household living conditions and employment status have also proven to be strong predictors of a woman's likelihood of using reproductive health services. Women that are working exhibit a higher probability of using modern contraceptives than women with no work (Helweldery, 2004). Occupation and income level are positively related to health outcomes as a result of its relationship to increased female decision making power, through the increased likelihood of female labour force participation and through positive attitudes towards the use of health care services (Grady, Klepinger, and Billy, 1993, as cited in Indongo, 2007). Studies in India also revealed that women from the service and business sectors tend to adopt family planning more vigorously than the other sectors like agriculture and allied activities and labourers (Nazmul, 2011). On the contrary, Dessalegn, *et al* (2014), in their study revealed that monthly income on family planning was not found to be an independent predictor for modern contraceptive use. They stated that the idea of believing that children come from God may be the reason for the absence of statistical differences between women with higher and lower income level.

c. Religion: Isahet *al* (2000) viewed that family planning in the Nigerian environment has remained a delicate issue that is still reluctantly being accepted based on religious beliefs and the perception that it is synonymous with population control (as cited in Abiodun, 2012). Anyebe, Olufemi, and Lawal, (2014) in their Zaria studies discovered that more Christian women than the Muslims were involved in the practice of family planning. This is as a result of the fact that most of the Christian women are more literate than the Muslim women coupled with the fact that the Muslim women tend to align with cultural beliefs much more than the Christian women. Even though some Christian sects such as the Catholics place many restrictions on family planning, Christian women exercise more freedom of choice much more than the Muslim women. Also the Muslim families are more involved in agricultural activities and this goes a long way in determining family size and fertility pattern. Yeatman *et al* (2008) investigated the relationship between "religion and family planning in rural Malawi". They stated that despite the centrality of religion and fertility to life in rural Africa, the relationship between the two remains poorly understood. The

study presented used unique integrated individual- and congregational-level data from rural Malawi to examine religious influences on contraceptive use. In this religiously diverse population, they found evidence that the particular characteristics of a congregation such as leader's positive attitudes toward family planning and discussion of sexual morality, which do not fall along broad denominational lines—are more relevant than denominational categories for predicting women's contraceptive use. They established evidence for a relationship between religious socialization and contraceptive behaviour (as cited in Abiodun, 2012). In an attempt to determine the prevalence and determinants of choice of contraceptive methods among rural women in Osun State Nigeria, Olugbenga-Bello, Abodunrin, and Adeomi, (2011) found that the most significant socio-demographic determinants of ever use of contraceptives were religion and family setting. Similarly, Sriya, (2002), studied the impact of religion on the decision to use contraception among Muslim families in India and found that individual beliefs held by men and women about their religion and what it prescribes or proscribes concerning contraceptive use, ultimately affects their demographic decisions. Communities with higher proportions of Muslim and higher proportions of polygynous marriages negatively predicted use of modern contraceptives (Ejembi, *et al*, 2015, as cited in Oladosu, M., *et al*, 2016).

In a study by Tayyaba (2011), it was identified that major obstacles to contraceptive use among Muslims include motivation, awareness and knowledge, social and cultural acceptability, perceptions of husband's preferences and attitudes, health concerns, and perceived access to services (as cited in Abiodun, 2012). The 2013 NDHS shows that 33% of currently married women are married to men who are in a polygynous union. Older women, women in rural areas, women with less education, and women in the lowest wealth quintiles are more likely than other women to have co-wives. The prevalence of polygyny varies markedly across zones and religions, where the South East with a significant Christian population is having the lowest level of polygyny at 13% and North West with a significant Muslim population is having the highest prevalence on polygyny at 44%. In the FCT, 17.5% of currently married women are said to be in a polygynous union (NDHS, 2013). Srikanthan *et al* tried to elucidate the religious and cultural influences that may affect the acceptance and use of various methods of contraception, including emergency contraception. Their work identified religious teachings related to family, sexual relations, and family planning for Christianity, Judaism, Islam, Hinduism, Buddhism, and Chinese religious traditions. Religious scholars from each of the major religions were consulted for additional information regarding how various subgroups within that religion may interpret and apply religious teachings in specific circumstances. They suggested that religious and cultural factors have the potential to influence the acceptance and use of contraception by couples from different religious backgrounds in very distinct ways (as cited in Abiodun, 2012).

d. Age: Similarly, Palamuleni, (2013) studied the socio-economic and socio-demographic factors affecting contraceptive use in Malawi using the 2000 and 2004 DHS Surveys. The study revealed that, the major determinants of contraceptive use are age, respondent's and partners' approval of family planning, family planning discussions with partner, number of living children, work status, education and visit to a health centre. In Ethiopia, Brhanie, and Asires, (2016) reported

that modern contraceptive use among women rather declined towards older age groups where majority of them (50.4%) were in the age group of 15-26 and the least of them (7.4%) were in the age group of 39-49 years. Demographic factors that have been shown to increase the likelihood of health service use are low parity (Magadiet *al.*, 2000; Stephenson & Tsui, 2002); young maternal age (Bhatia & Cleland, 1995). Marriage patterns are an important determinant of fertility levels in a population. The median age at first marriage in Nigeria among women age 25-49 is 18.1 years. Urban women marry four years later than rural women (20.8 and 16.6 years, respectively). The median age at first marriage varies substantially by level of education. For women age 25-49 with no education the median age at marriage is 15.5 years, compared with 21.5 years for women with secondary education. Men enter into first union at a later age than women; the median age at first marriage for men age 30-59 is more than 27.2 years of age. Also the median age at first marriage for women in the FCT region aged 25-49 is 22.7 years (NDHS, 2013). The initiation of sexual activity before marriage is not uncommon in Nigeria. Among respondents age 15-25, the median age at first sexual intercourse is 17.6 years for women while men between ages 25-49 have their first intercourse at a median age of 21.1 years, while the median age for FCT women age 25-49 years have their first sexual intercourse at age 19.9 years (NDHS, 2013).

e. Number of Living Children: Dessalegn, Behailu, Wagnew and Yigzaw, (2014), discovered that women with no children and women with 5 or more children were less likely to use contraceptives. On the contrary, a study by Nazmul, (2011) in West Bengal, India revealed that married women who had 5 or more children were more likely to use contraceptives than those with fewer children. According to Yihunie, Ayalu, Habtamu, Susan, and Kebede, (2013), in their study "the variation and factors influencing modern contraceptives use among married women in Ethiopia; evidence from a national population survey", found that being wealthy, more educated, employed, having higher number of living children, being in a monogamous relationship, attending community conversation, being visited by healthcare workers at home predicted use of modern contraception, while living in the rural areas, older age, being in polygamous relationship and witnessing one's own child's death were found to negatively influence the use of modern contraceptive. The findings indicate a significant socio-economic, urban, rural and regional variation in modern contraceptive use among reproductive age women in Ethiopia. Anyebe, (2014) reported that amongst all the users of contraceptives, 47.9% stated 'child spacing' as major reason for using contraceptives. In the 2013 Nigeria Demographic and Health Survey (NDHS, 2013), the survey results shows that fertility in Nigeria has remained at a high level over the last 27 years from 5.9 births per woman in 1991 to 5.7 births in 2008 and 5.5 births per woman in 2013 which is 0.2 children less than that reported in 2003 and 2008 NDHS survey with a result of 5.7 each. On average, rural women are having two children more than urban women (6.2 and 4.7 children, respectively), while the total fertility rate in the FCT region stands at 4.5. If all unwanted births were prevented, women would have an average of 4.8 children, compared with the actual average of 5.5 children. Also, median age at first birth for urban women aged 25-49 years is 22.0 and 19.0 years for rural women. In FCT the median age at first birth for women aged 25-49 years is 23.6 years.

f. Place of Residence: Examining contraceptive utilization is very important in developing nations like Nigeria where the socio-economic and demographic settings in the rural areas significantly differs from that of the Urban centres. Generally, contraceptive awareness and use tends to be higher amongst urban residents than rural residents (NDHS, 2013). While contraceptive use has been reported to be less than 50% in both rural and urban communities in Nigeria, studies in India and Bangladesh have reported more than 50% contraceptive use in both rural and urban communities (NDHS, 2013; Sushma & Sushma, 2016, Mohammad, 2018).

Theoretical Framework: Some theories/approaches will be reviewed and attempts will also be made to understand and appreciate the role of these theories/approaches of contraception and how they directly or indirectly relate to knowledge and use of contraceptive methods. Some researchers have found that the degree and extent of the impact of family planning and contraceptive use on family size is influenced by a number of factors. These include preference for large families, husband's dominant decision-making power, desire for a male child, social and familial pressures to have children, education and religious values against the use of contraceptives. As supported by various demographic experts, researchers and literature sources, such factors appear to modify and affect a woman's ability and willingness to accept and utilize a variety of contraceptive methods. Therefore, to help overcome barriers to contraceptive use and achieve a positive decline in fertility rates, family planning interventions should target the individual values and perceptions as well as socio-demographic factors, socio-cultural norms and attitudes. Also, while considering the influences that the socio-cultural environment, attitudes, social norms and demographic factors could have on women's contraceptive usage, the study framework would be guided by theories adapted from wealth flows theory, social learning theory and theory of planned behaviour.

Wealth Flow Theory: John Caldwell's wealth flow theory proposes a direct link between family structure and fertility (Caldwell, 1976). Caldwell posits that the level of fertility is primarily imposed by the direction of the net wealth flows between parents and children, which also include all the present and anticipated benefits over a lifetime. According to the theory, there are only two major forms of family structure, differing principally in the direction of wealth flows among generations. In 'primitive' and 'traditional' societies, net wealth flows are primarily upward from younger to older generations, and individual interests are subjugated to corporate interests, while in 'developed societies', family structure is organized in terms of downward wealth flows where parents are expected to provide for children's economic well-being (International Encyclopaedia of the Social & Behavioural Sciences, 2001). However, in the opinion of Easterline, (1973), the wealth flow theory identifies two distinctive human fertility regimes. In the first or "pre-demographic transition" pattern, people express the desire to have many children and average completed fertility exceeds four or five live births. The second or "post demographic transition" regime occurs when the demand for children is lower than potential supply and people attempt to limit their fertility to two or three births (Abiodun, 2012). In developed nations, family structure is organised in terms of downward wealth flows where parents are expected to provide for children's economic well-being.

Voluntary Social Action Theory: Talcott Parsons (1902-1979) theory of social action is based on his concept of the society. Parsons is known in the field of sociology mostly for his theory of social action. Parsons built an analysis of social action using parts of the action approach of Max Weber (1864-1920). For Weber, social action involves an action by an individual where: (i) The action has meaning for that individual, (ii) It takes account of others, and (iii) It is oriented, in that the social actor is attempting to meet a goal or end (Adams and Sydnie, 2001). While Parsons was certainly aware of this classification, he developed a different approach to studying social action while building on the general approach of Weber. For Talcott Parsons, social action has the following characteristics:

- a. **Social action is voluntary or voluntaristic:** while it is constrained by a restricted set of choices available in the situation or context, the social actor can also act in a voluntary manner and have choices concerning the particular action he or she will take.
- b. **Social action is subjective:** With the social actor having an internal orientation. Similar to Weber, social actions are meaningful for the actor and consider others, but at the same time the actor has his or her own preferences and goals. Voluntaristic action by the social actor is oriented by his or her preferences and attempts to meet individual goals.
- c. **Social action is governed by social norms and the values of the culture and social order** within which the action takes place.

According to Parsons, each of the three main type of social action systems: culture, personality and social systems has a distinctive coordinative role in the action process and therefore has some degree of causal autonomy. For Parsons, society is an action system that is analytically divided into four primary sub-systems of action, which comprises of the core institutional structures of modern society. The core functions are: 1. Adaptation to the environment (e.g., economic production). 2. Goal attainment (the Political system). 3. Integration (Legal system) and 4. Latency or pattern maintenance, (i.e transmitting society's generally shared values through socializations e.g., the family, education) so that the value-orientations of society effectively regulate individual behaviour and social action. (Parsons, 1971, as cited in Dillon, 2009). Therefore, to understand the role of socio-demographic factors in the use of contraceptives, Parsons' voluntary social action theory which is an aspect of the functionalist perspective emphasizes the constraint of individuals within specific customs and values. Here, attempts are made to explain how the use of contraceptives are related to socio-demographic variables.

MATERIALS AND METHODS

Gwagwalada Area Council where this research took place was created on the 15th October, 1984. Gwagwalada has an active population of 73,998 and a dependent population of 84,620 based on the 2006 population census figures while the population was estimated at 158,618 persons. As a result, the population of women within the reproductive years stands at 40,914 women. With a landmass of 1,043km² and coordinates of latitude 8° 15'N and 9° 00'N and Longitude 7° 00'E and 7° 05'E (Oyeyinka and Adenyuma, 2016). Gwagwalada has a projected population of 252,522 persons (NPC, 2006).

Gwagwalada's population in 2015 was estimated to be over 1,000,000 (Daily Trust, 2015), and as at July 2017 the population of married pregnant women in Gwagwalada area council were estimated at 38,439 (NPI, 2017). Gwagwalada has a heterogeneous population with a significant Christian and Muslim population. Gwagwalada has ten political wards namely: Central, Dobi, Gwako, Ibwa, Ikwa, Paiko, Kutunku, Quarters, Tunga-maje and Zuba ward. Out of these ten wards, the urban and township wards are Central, Kutunku and Quarters (Oyeyinka *et al*, 2016; Ibrahim, Uba-Eze, Oyewole and Onuk, 2009) and they are more densely populated than the remaining rural wards. This study adopted a descriptive cross-sectional survey using quantitative and qualitative research techniques. There are ten primary healthcare centres, one general hospital and one tertiary hospital located within Gwagwalada area council. The study was conducted in one primary healthcare centre per ward as each ward had a primary healthcare centre with the exception of Quarters ward, where the teaching hospital had to serve as a replacement for the phase 3 PHC in Quarters ward since it was not operational as at the time of this study.

The study population comprised of married women in the rural and urban settlements between the ages of 15-49 residing in Gwagwalada area council. A structured questionnaire was administered to the respondents. A simple random sampling technique was used. The samples were distributed to each public primary health care centre in each ward. In Gwagwalada area council there were ten political wards in existence and in each of the nine wards there existed one or more public primary health care facility and since Quarters ward didn't have a PHC, the teaching hospital (UATH) situated at Quarters was the only option available to use, which brought the total number to ten. The questionnaire was comprised of sections covering socio-demographics, contraceptive types and intervening variables. To get the sample for in-depth interviews, two staffs were picked randomly from each facility out of those who were on duty on the day of interview. By using a lottery method, pieces of papers written "Yes" and "No" in a container was used for picking eligible respondents. The quantitative data were analysed using Statistical Package for Social Science (SPSS) version 23.0. Proportions were compared using Chi-square, while binary logistic regression was used to assess the extent of impact. Statistical significance was set at P value < 0.05. The qualitative data were analysed using themes and narratives which were then summarized and emerging issues in the discussion were documented and phrases with special connotation were noted and pulled out as illustrative quotes to complement the quantitative data.

DATA PRESENTATION AND DISCUSSIONS

The age distribution of women in the study ranged between 15 and 49 years, with majority of them being in their third decade of life. Majority of the participants had at least secondary level of education (42.3%). More than one-third of the women were self-employed. One-hundred and eighty of the women were of the Islamic religion (47.0%) while two-hundred and three (53.0%) were Christians.

It is reported in table 1 that 33.4% of the married women make use of contraceptive methods. This shows that the rate of contraceptive use is very low which is similar to the release from National Population Commission (NPC) which revealed

that contraceptive use is still low in many developing countries, including Nigeria, where 23.7% of currently married women had ever used any contraceptive method (NPC and ICF Macro, 2009). In Tunga-maje ward, a 55 years old female CHO at the PHC situated within a rural community stated that:

“About 20 registered married women in their reproductive age do cometo seek for family planning methods weekly”

The table also reveals that 125 (32.6%) married women currently use modern methods, while 53 (13.8%) of the women currently use traditional methods. The female sterilization method 5 (1.3%) is the least method currently used by the women. In the in-depth interview session with a 35 year old female CHEW at Kutunku ward PHC, it was stated:

“Our facility provides the pills, injectables, condoms and implants to our clients”

is mostly available or get referral to an urban or tertiary health facility such as UATH.

The Role of Socio-Demographic Factors as a Determinant of Contraceptive Use: This section examines the Socio-Demographic factors such as place of residence, age, ethnicity, religion, geopolitical zone, marriage duration, number of children, educational and literacy level, type of occupation, income level and how they influence contraceptive use. Results on table 2 shows that 77 (20.1%) of the respondents from Zuba ward present the highest percentage of married women while Quarters ward represents the least percentage with 9 (2.3%) women. Paiko and Dobi ward record the lowest percentage of women using contraceptives. A test of relationship shows that there is a significant relationship between place of residence and contraceptive use. This is largely because most of the wards where the married women reside are typically rural communities and have a larger

Table 1. Distribution of married women according to their current usage of contraceptive types

Contraceptive types	Response	
	Yes	No
Any Contraceptive method	128 (33.4%)	255 (66.6%)
Modern Methods	125 (32.6%)	258 (67.4%)
a. Female Sterilisation	5 (1.3%)	378 (98.7%)
b. Male Sterilisation	1 (0.3%)	382 (99.7%)
c. Pill	46 (12.0%)	337 (88.0%)
d. IUD	18 (4.7%)	365 (95.3%)
e. Injectibles	64 (16.7%)	319 (83.3%)
f. Implants	41 (10.7%)	342 (89.3%)
g. Male Condoms	58 (15.1%)	325 (84.9%)
h. Female Condoms	8 (2.1%)	375 (97.9%)
i. Lactational Amenorrhea (LAM)	23 (6.0%)	360 (94.0%)
j. Emergency Contraception	8 (2.1%)	375 (97.9%)
k. Other Modern Method	5 (1.3%)	378 (98.7%)
Traditional Method	53 (13.8%)	330 (86.2%)
l. Rhythm	18 (4.7%)	365 (95.3%)
m. Withdrawal	33 (8.6%)	350 (91.4%)
n. Other Traditional Methods	13 (3.4%)	370 (96.6%)

Source: Field survey, 2018

Table 2. Relationship between place of residence and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	Df	P-value
	Yes (%)	No (%)				
Ward				20.324	9	0.016
Kutunku	20 (35.1%)	37 (64.9%)	57 (14.9%)			
Quarters	8 (88.9%)	1 (11.1%)	9 (2.3%)			
Central	17 (38.6%)	27 (61.4%)	44 (11.5%)			
Zuba	23 (29.9%)	54 (70.1%)	77 (20.1%)			
Dobi	4 (21.1%)	15 (78.9%)	19 (5.0%)			
Tunga-Maje	18 (34.0%)	35 (66.0%)	53 (13.8%)			
Gwako	9 (37.5%)	15 (62.5%)	24 (6.3%)			
Ibwa	10 (47.6%)	11 (52.4%)	21 (5.5%)			
Ikwa	15 (25.9%)	43 (74.1%)	58 (15.1%)			
Paiko	4 (19.0%)	17 (81.0%)	21 (5.5%)			
Total	128 (33.4%)	255 (66.6%)	383 (100%)			

Source: Field survey, 2019

From the foregoing, most of the PHCs in the rural communities and some in the urban wards don't have options as to the contraceptive types and as a result most of the women interested in the use of contraceptives will usually ask for what

coverage in the area council when compared to the urban and township wards that comprises of only three wards namely; Kutunku, Quarters and Central (Oyeyinka, et al, 2016; Ibrahim, et al, 2009). The urban dwellers (40.9%) reported a higher percentage in the use of contraceptives when compare

to the rural dwellers (30.4%). As a result, a test of relationship showed that there is a significant relationship between place of residence and contraceptive use.

he north-central region. Also, a test of relationship indicates that there is a significant relationship between ethnic background and contraceptive use.

Table 3. Relationship between Age of respondents and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	Df	P-value
	Yes (%)	No (%)				
Age				18.944	6	0.004
15-19	3 (23.1%)	10 (76.9%)	13 (3.4%)			
20-24	20 (24.1%)	63 (75.9%)	83 (21.7%)			
25-29	25 (25.3%)	74 (74.7%)	99 (25.8%)			
30-34	38 (43.7%)	49 (56.3%)	87 (22.7%)			
35-39	28 (37.3%)	47 (62.7%)	75 (19.6%)			
40-44	11 (64.7%)	6 (35.3%)	17 (4.4%)			
45-49	3 (33.3%)	6 (66.7%)	9 (2.3%)			
Total	128 (33.4%)	255 (66.6%)	383(100%)			

Source: Field survey, 2019.

Table 4. Relationship between Ethnic background and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	df	P-value
	Yes (%)	No (%)				
Ethnicity				19.694	4	0.001
Ibo	14 (32.6%)	29 (67.4%)	43 (11.2%)			
Hausa	15 (22.4%)	52 (77.6%)	67 (17.5%)			
Yoruba	36 (55.4%)	29 (44.6%)	65 (17.0%)			
Gbagyi	29 (27.1%)	78 (72.9%)	107 (27.9%)			
Others	34 (33.7%)	67 (66.3%)	101 (26.4%)			
Total	128 (33.4%)	255 (66.6%)	383			

Source: Field survey, 2018

The age groupings in *table 4* reveals that the rate of use of contraceptives amongst the age groups is high with the older age groups and this conforms with another study carried out in Ghana where contraceptive use was higher amongst older respondents from age 30 and above and lower amongst participants aged 29 and below (Nonvignon and Nonvignon, 2014). On the contrary studies in Zambia have shown that contraceptive use tends to be higher in the younger age groups of 20-24 to 25-29 (Lemba, 2014). A test of relationships indicates that there is a significant relationship between age and contraceptive use. These findings are supported by outcome from the in-depth interview session in a health facility called Paiko PHC which is predominantly rural and a health facility called UATH located in Quarters, an urban residence.

During the interview the community health officer in Paikostated that "in terms of age group it is mostly young married women that come to seek for family planning services here"

Result from the in-depth interview reveals that the younger women in Paiko community use contraceptives much more than the older women and this may be as a result of other influencing factors such as educational level. This further agrees with the voluntary social action theory where actions of individuals are not only determined by the cultural system of restricted choices but motivated by internal orientation, preferences and goals. Participants in health centres like UATH are better exposed to health education and are likely influenced by the values of an urban setting where the net wealth flow is downward as maintained in Caldwell's theory. On ethnic background in *table 4* the Gbagyi's being the indigenous population of 107 (27.4%) constitutes the majority and the Igbo's with 43 (11.2%) married women are having the lowest representation amongst the major ethnic groups in this study. The 101 (26.4%) others comprises mostly of married women who are of other ethnic groups in

This is similar to previous studies where the south-westerners have been reported to rank highest (38%) in the use of contraceptives (NDHS, 2013). Also, in another study, the participants from the Yoruba ethnic background were reported to rank the highest percentage (19%) amongst women of child bearing age (Igbodekwe, Oladimeji, Adeoye, Akpa, Lawson, 2014). Generally, just like this study, the southerners have been reported to rank higher in contraceptive use than married women from the north. A previous study in Gwagwalada showed that of all ethnic groups the Igbo's had a better understanding of contraceptive knowledge (Onuorahet *al*, 2017). These findings are confirmed in the in-depth interview session at Ibwa I PHC located in one of the most remote rural areas. *A male CHEW stated that:*

"The three major tribes here in Ibwa do come to seek for family planning services, but the indigenous tribe (Gbagyi's) are more in percentage"

It means the indigenous population in Ibwa are beginning to appreciate and embrace family planning methods and values of the modern society. These findings support the voluntary social action theory where women have voluntary choice and decisions to make even though other members of the same ethnic background tend to do otherwise.

In *table 5*, two hundred and three (53.0%) of the Muslim women constitute majority of the respondents when compared to their Christian counter-part with 180 (47.0%). It can also be reported that majority of the contraceptive users are Christians (42.8%). The table's test of hypothesis further reveals that there is a significant relationship between religion and contraceptive. In an attempt to determine the determinants of choice of contraceptive methods among rural women in Osun State Nigeria, Olugbenga-Bello *et al*, (2011) found that the most significant socio-demographic determinants of ever use of contraceptives were religion and family setting.

The in-depth interview session with a 28 year old male medical officer in Dobi ward reported that:

“Religious factor is the major reason why clients don’t come to seek for family planning services”

Parson’s social action theory further confirms the role of societal institutions such as religion in shaping people’s behaviour and attitude towards its values and tenets. Most Nigerians are emotionally attached to their religions and therefore susceptibility to changes and acceptance towards family planning methods is difficult.

those with secondary school education (32.1%). Similarly, Bbaale (2011) used the Uganda Demographic and Health Survey of 2006 to examine the relationship between female education, contraceptive use and fertility rates in Uganda. His findings revealed that female education, especially at the secondary and post-secondary levels, increases the likelihood of using contraception. The in-depth interview session with a female nurse in Ibwa I PHC which is located in a rural community confirmed:

“It is only those that are educated and in agreement with their husbands that can come to seek for family planning”

Table 5. Relationship between Religion and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	df	P-value
	Yes (%)	No (%)				
Religion				13.364	1	0.000
Christian	77 (42.8%)	103 (57.2%)	180 (47.0%)			
Muslim	51 (25.1%)	152 (74.9%)	203 (53.0%)			
Total	128 (33.4%)	255 (66.6%)	383(100%)			

Table 6. Relationship between number of children and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	df	P-value
	Yes (%)	No (%)				
Number of Children				4.763	3	0.190
None	6 (42.9%)	8 (57.1%)	14 (3.7%)			
1-4	98 (31.6%)	212 (68.4%)	310 (80.9%)			
5-9	24 (42.9%)	32 (57.1%)	56 (14.6%)			
10 and above	0 (0.0%)	3 (100.0%)	3 (0.8%)			
Total	128 (33.4%)	255 (66.6%)	383			

Source: Field survey, 2019.

Table 7. Relationship between educational level and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	df	P-value
	Yes (%)	No (%)				
Level of Education				14.418	3	0.002
Primary	16 (27.6%)	42 (72.4%)	58 (15.1%)			
Secondary	52 (32.1%)	110 (67.9%)	162 (42.3%)			
Post-Secondary	39 (50.6%)	38 (49.4%)	77 (20.1%)			
Never	21 (24.4%)	65 (75.6%)	86 (22.5%)			
Total	128 (33.4%)	255 (66.6%)	383			

Source: Field survey. 2018.

Table 8. Relationship between occupational level and contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	Df	P-value
	Yes (%)	No (%)				
Occupation				22.071	4	0.000
Unemployed	30 (29.1%)	73 (70.9%)	103 (26.9%)			
Self-employed	46(30.3%)	106 (69.7%)	152 (39.7%)			
Farmer	17 (29.3%)	41 (70.7%)	58 (15.1%)			
Student	7 (25.9%)	20 (74.1%)	27 (7.0%)			
Employed	28 (65.1%)	15 (34.9%)	43 (11.2%)			
Total	128 (33.4%)	255 (66.6%)	383(100%)			

Table 6 shows that 310 (80.9%) of the married women mostly have between 1-4 number of children, while 3 (0.8%) women who have more than 10 children rank the least representation amongst the women. The test of significance shows that there is no significant relationship between number of living children and contraceptive use. Participants with “no child” and those have 5-9 children are reported to maintain equal percentage (42.9%) in contraceptive use. On the contrary, a study by Nazmul, (2011) in West Bengal, India revealed that married women who had 5 or more children were more likely to use contraceptives than those with fewer children. The educational level of married women in *table 8* reported 162 (42.3%) majority with secondary education and primary education having the least percentage of respondents with 58 (15.1%). The test of significance shows that there is a significant relationship between educational level and contraceptive use. Women with post-secondary education (50.6%) are reported to use contraceptives most, followed by

In Nigeria generally, result from studies by Ejembi, Dahiru, and Aliyu, (2015) showed that individual and community level variables accounted for 82% of the variations in contraceptive use in Nigeria and the contextual factors found to be positively associated with use of modern contraceptives were female education, female autonomy and access to health facilities (as cited in Oladosu, *etal* 2016). In Gwagwalada, the voluntary social action theory identifies and explains the extent to which the societal institutions, cultural and personal factors influence women’s ability to use contraceptives at the rural community where cultural orientation dominates women’s perception and the urban area where education and women empowerment changes the perception of women towards contraceptive use. These findings also align with the wealth flow theory where women in the modern society are likely to embrace contraceptive use. Also *table 8* shows that 152 (39.7%) of most married women are self-employed while 27 (7.0%) students revealed the least percentage of women. And the

relationship between occupational status and contraceptive use appears to be significant. The result shows that the employed women (65.1%) followed by the self-employed (30.3%) are more inclined to the utilization of contraceptives. This confirms the role of women empowerment and how it can greatly contraceptive use amongst married women. A female community health officer in Paiko ward revealed in the in-depth interview session that:

“Women who are mostly self-employed and employed come to seek for family planning services”

Evidence from NDHS (2008) reported that women who were working (43%) are more likely to use contraceptives (as cited in Igbodekweet *al*, 2014). Women that are working exhibit a higher probability of using modern contraceptives than women with no work (Helweldery, 2004). A woman who is empowered is likely to set personal preferences and goals and family planning is certainly going to be factored into how she will set out to achieve these goals. These findings reflect on the voluntary social action theory where personal can be shaped by an individual's preferences. Also women empowerment is amongst the notable developments in a modernizing society and the experiences of married women in the modern world towards contraceptive use are already being observed amongst the most empowered women in this study.

below N60,000 and a good number reported to be earning between N5,000 to N20,000. It is also reported that the relationship between income level and contraceptive use is significant, and this is evidenced amongst those earning N61,000 or more. This finding is consistent with a study in West Bengal-India where the highest rate of family planning utilization was observed among highest income group while the lowest rate of contraceptive use was observed amongst the lowest income group (Nazmul, 2011).

In an in-depth interview at the PHC in Gwako ward, senior male CHEW in the rural community stated:

“Level of income can affect and determine the rate of use of contraceptives amongst the married women in our community”

The financial status of a woman goes a long way to grant her some freedom to make decisions that are aimed at proving a better life. Women who are financially empowered usually tend to follow the downward wealth flow where children born to these women are considered as liabilities than assets and therefore quality of life for both women and children are highly considered and this includes the use of contraceptives. Table 10 shows that among those who use contraceptives, the most common source of accessibility is the public hospital 109 (85.2%), while friends/relatives 1(0.8%) are reported to be the

Table 9. Relationship between Income Level and Contraceptive use

Characteristics (Variables)	Do you use Contraceptives?		Total	Chi-Square Value	Df	P-value
	Yes (%)	No (%)				
Income Level				9.964	4	0.041
No Income	32 (26.9%)	87 (73.1%)	119 (31.1%)			
N5,000- N20,000	33 (31.4%)	72 (68.6%)	105 (27.4%)			
N21,000-N40,000	31 (34.4%)	59 (65.6%)	90 (23.5%)			
N41,000-N60,000	11 (36.7%)	19 (63.3%)	30 (7.8%)			
N61,000- above	21 (53.8%)	18 (46.2%)	39 (10.2%)			
Total	128 (33.4%)	255 (66.6%)	383 (100%)			

Table 10. Sources of accessibility of contraceptives

Source of accessibility	Do you use contraceptives?		
	Yes	No	Total
Private Hospital	5 (3.9%)	0 (0.0%)	5 (1.3%)
Public Hospital	109 (85.2%)	2 (0.8%)	111 (29.0%)
Non-governmental Organization	4 (3.1%)	0 (0.0%)	4 (1.0%)
Pharmacy/Patent store	8 (6.3%)	0 (0.0%)	8 (2.1%)
Friend/Relative	1 (0.8%)	0 (0.0%)	1 (0.3%)
No response	1 (0.8%)	253 (99.2%)	254 (66.3%)
Total	128	255	383

Source: Field survey, 2019

Table 11. Regression coefficients of contraceptive use and other independent variables

Model	B	Std. Error	T	Sig	Odds Ratio (95% CI)
Constant	2.103	0.827	6.463	0.011	8.188
Age	-0.216	0.089	5.917	0.015	0.81 (0.68 - 0.96)
Religion	0.807	0.236	11.696	0.001	2.240 (0.687-1.019)
Residence	-0.487	0.251	3.776	0.052	0.614 (0.376-1.006)
Number of Children	-0.141	0.269	0.274	0.601	0.869 (0.513-1.472)
Education	-0.052	0.118	0.190	0.663	0.950 (0.753-1.198)
Occupation	-0.178	0.100	3.157	0.076	0.837 (0.687-1.019)
Income	-0.136	0.100	1.874	0.171	0.872 (0.718-1.061)

Dependent Variable: Contraceptive use

In *table 9* most of the women (31.1%) are reported to have no income while the least percentage of respondents (7.8%) are reported to earn between N41,000 – N60,000. This result reflects on the response from the respondents in the pilot study through a semi-structured questionnaire administered to 38 women, where 85% of the women reported to be earning

least common source for accessing contraceptives. Past studies in Gwagwalada have revealed that 78.6% of married women identified the health facility as their most common source of contraceptives amongst couples (Oyeyinka *et al* 2016). In Paiko ward, an in-depth interview was conducted with a senior male CHEW and he stated:

“The traditional methods and the IUCD are the contraceptive types that clients may be seeking for outside our health facility in mostly places like the chemist, pharmacy or private hospital, and also lack of commodity (out of stock) sometimes makes it impossible for our clients to access contraceptives in our facilities”

A female nurse at UATH stated that: *“Sometimes distance affects their next visit appointment”* The interview reveals that stock-out and distance are likely challenges that would make it difficult for the women to access contraceptives in rural and urban communities respectively. Okeshola (1997), in their study of who wants family planning in three areas of Kaduna State, identified poor information, education, communication materials, limited services and training, geographic inaccessibility as the major constraints to family planning in Nigeria (as cited in Ahmed-Adams, 2012). The coefficient results show that age, residence, number of children, education, occupation and income have a negative relationship with contraceptive use while religion has a positive relationship with contraceptive use. This implies that the variable with the strongest impact on contraceptive use is religion as indicated by regression coefficient (0.807).

DISCUSSION OF FINDING

On contraceptive use, the study revealed in *table 2* that 33.4% of women in stable marital unions in Gwagwalada area council use contraceptive methods. This is more than double of the national average (15%), regional average (15.6%) and higher than the state (FCT) average of 25.2% (NDHS, 2013). Further findings in *table 2* indicated that 32.6% of women in stable marital unions used modern contraceptive methods and 13.8% used traditional methods. The most commonly used modern contraceptives are the injectables (16.7%), male condoms (15.1%) and pill (12%), while the withdrawal method (8.6%) is the most common of the traditional methods. This conforms with the literature review on population regulatory technology amongst couples in Gwagwalada township wards which revealed that out of 262 couples using contraceptives, most of them used the male condom (35.1%), pill (15.6%) and injection (15.6%), while the withdrawal method was rated 14.5% (Oyeyinka and Adenyuma, 2016). Previous studies in FCT also reported that 34.2% adolescents/youths used contraceptives during their last sexual encounter (Ugwu, 2012). However, NDHS (2013) report revealed that the most commonly used modern contraceptives amongst married women in the FCT were injectables (4.7%), IUD (4.4%) and pill (3.5%), while out of the traditional methods, the rhythm method (3.2%) ranked the most used.

Socio-demographic factors: In this study, community conditions are likely to influence the availability of contraceptives and the perceptions of potential users. Thus, women in the rural communities are less likely to have better access to information about contraception and its availability. Therefore, it was observed that the use of contraceptives was higher amongst married women in the urban areas (40.9%) than the rural areas (30.4%) despite the fact the rural area had a larger sample size. To some extent, these findings confirm the national survey report where 26.8% of married women residing in the urban settings reported using contraceptives when compared to the 8.5% residing in the rural areas (NDHS, 2013). Also, the Gbagyi's and Hausa's who constitute majority of contraceptive non-users (77.6% and 72.9% respectively)

reside mostly in the farming communities or as agro-allied traders in the urban centres. It further confirms the literature that Contraceptive use was also generally higher among urban women than rural women (Nonvignon and Novignon, 2014). The rural communities in Gwagwalada area council are deeply characterised by the traditional lifestyle depicted in the wealthflow theory, as a result, married women who are self-employed (mostly traders), unemployed (mostly housewives) and farmers are unlikely to use contraceptives because of the traditional arrangement that assumes more children means more wealth and human labour to generate income for the family. *Table 5* also revealed that the Yoruba women rank the highest amongst the contraceptive users (55.4%), and the only major ethnic group to exceed 50% in contraceptive use. In *table 3*, the use of contraceptives increases with the age of the women from 15.4% for those within the age group of 15-19 years up to 53.8% for those within the age group of 40-49 years. This is consistent with the report on perception of the women on age and contraceptive use where it was revealed that out of the women who believe age influences their desire to use contraceptive, more of the women (84.6%) in the age category of 40-49 believe age determines their desire to use contraceptives. Even though contraceptive use increases with age, fertility level though undulating in percentage happens to be highest (100%) in women at older age 45-49 and most of them reside in the rural areas where farming activities mostly take place. This confirms the wealthflow theory which identifies economic relevance of having high fertility rate in the traditional communities. On the contrary, the national survey reports that contraceptive use among married women declined mostly at the extremes of age group (NDHS, 2013).

In *table 6* the religious factors also tend to play a key role in contraceptive use as more Christians (42.8%) are reported to use contraceptives more than the Muslim women (25.1%). Likewise data shows that more Christian women (16.7%) than Muslim women (15.8%) don't believe their religion influences the approval of contraceptives and it is further revealed that more of the Muslim women (8.9%) don't know the status of their religion as regards the approval of contraceptive use. It confirms the literature, where Anyebe, Olufemi, and Lawal (2014) in their Zaria study revealed that despite the married Muslim women (66%) having a sample size almost doubling that of the Christian women (34%), it was reported that 60.6% of Christian women used contraceptives much more than their Muslim counter-parts (21.4%). Data shows that over 71.8% of the married women believe their religion does have some influence on the approval of contraceptive methods. However the practical and actual use of contraceptives in this study reveals that religion alone is not enough to determine the use of contraceptive methods and this can be supported by Parson's social action theory where personal and other institutional/environmental factors can be responsible for the action of an individual takes towards certain phenomena within a social setting. Results from *table 7* reveals that most of the women (66.3%) claim they can either read or write in any language and those who can read or write in any language are more likely to use contraceptive (38.2%) than those who are least educated (24%). Also in *table 8*, there is a consistent increase in contraceptive use beginning with women with no educational attainment (27.6%) up to those with the highest educational level (50.6%). Likewise, NDHS (2013) reports that 37% of married women with post-secondary education are likely to use contraceptives more than those with no education (2.7%). The trend shows that the lower the

educational level, the lesser the percentage of contraceptive use. The study shows that education appears to be a strong predictor of contraceptive use in so many ways: it's likely to expose women to modern ideas about contraception, child spacing, family size, limitation and child bearing preferences. Women with better education find it easier to communicate with healthcare professionals and may have better access to sources of contraceptive methods than women with little or no education.

In *table 8*, the study revealed that the employed women recorded the highest percentage (65.1%) in contraceptive use while the unemployed and student category recorded the lowest percentage (29.1% and 25.9% respectively). The farmers (29.35) also recorded low contraceptive use and the self-employed (30.3%) who are either petty traders or agro-allied traders also recorded low contraceptive use rate. Similarly, *table 16* in *appendix III* revealed that most of those using contraceptives reported their spouse were employed (46.3%) while the least percentage of contraceptive users reported their spouse were either unemployed (7.7%) or a student (16.7%). Often at times, occupation influences the decision making ability for the practice of contraceptive use amongst married women. According to Nazmul (2011), the employment factor increased the status of women and gives them a higher sense of freedom in the decision making process in the family. Studies in India revealed that women from the service and business class adopt family planning more vigorously than the other sectors like agriculture and allied activities and labourers Nazmul (2011). It is clearly obvious that there is a direct link between economic conditions and practice of family planning methods. Higher income is consistently associated with higher adoption of family planning methods amongst married women in the study. In *table 10*, there is a consistent rise in the use of contraceptive ranging from 26.9% amongst those within the zero income level to 53.8% amongst those earning N61,000 and above.

Education, income and occupation are major determinants of human development, quality of life and modernization. In this study, results from educational level, income and occupation reflect on the intergenerational wealthflow theory as it appears that those in the rural areas where contraceptive non-usage is most prevalent have most of the less educated, zero income earners and farmers. More of the contraceptive users are in the urban communities and in the open-ended question, most of the contraceptive users stated 'good health and proper management of financial resources' as key advantages in the use of contraceptives. According to the wealthflow theory, families in modern society see children as a liability than a source of income and this may be the reason why most of the contraceptive users would state financial management as a key advantage. Parson's Social action theory confirms the traditional norms and values inherent in the rural communities. These values are likely in support of high birth rate since children are likely to be considered to have some socio-economic benefit.

Conclusion

Generally, most of the women in this study believe there are advantages in the use of contraceptives but prevailing socio-demographic factors as well as other intervening variables such as accessibility, availability and affordability frustrates the use of contraceptives. The study suggests that place of

residence, ethnic background, age, religion, region, marriage duration, occupation, income and education all play a significant role in influencing the use of contraceptives. The only way for the women to obtain the contraceptives of their choice is to either go to the township clinics or visit a private pharmacy. This leads to more transportation cost and expenses for the women even though most of the women find their community public health facility to be the most convenient place for accessing contraceptives. It further explains why contraceptive use increases with high income earners and urban residents. Religion plays major role in couple's decision to practise family planning methods and this is reflected in the husbands dominating role in most decisions concerning reproductive health issues such as decisions on contraceptive use. Studies in middle-east nations with a predominant Muslim population have been reported to encourage contraceptive use and birth control practice, examples of contraceptive use prevalence include 64.4% in Tunisia, 62% in Jordan, 53.7% in Lebanon and 44.4% in Saudi Arabia (Kadi, 2018; Al Sheeha, 2010). Health policies and programs in these countries are strictly guided by Islamic principles and injunctions; therefore it cannot be totally conclusive that the Muslim religion is against contraceptive use even though this study indicates so. Furthermore, women are found to be more involved in the practise of family planning than the men.

Recommendations

Findings from the study forms the basis for the following recommendations:

1. Studies from around the world have shown that there is a direct correlation between women's empowerment and contraceptive use. Similar findings were also noted by the 2013 NDHS survey where contraceptive use was found to be positively associated with women empowerment. It is therefore recommended that women empowerment should be integrated into family planning programming in Gwagwalada area council, Abuja.
2. Analysis regression shows that religion has the strongest impact on contraceptive use. Therefore, community and religious leaders should be encouraged by relevant government agencies to be actively involved in the process in order to communicate to their people and adherents the importance of family planning.
3. There is need for training and re-training of healthcare providers at the public healthcare centres on all the contraceptive methods and how they are used, with further emphasis on client husband's involvement. Workers should be equipped with the necessary information about the side effects that come with the contraceptive methods. Reporting tools need to be provided by the relevant agencies to measure the progress and impact of training and contraceptive use amongst the clients.
4. It is highly recommended that the various types of contraceptives are made available for the women to make choices. This would make more options available, improve access and identify that which would likely cause no side effects to the user. IUDs and implants which are in top demand should be made available.

5. Finally, since a significant number of the health facilities cannot boast of free or fully stocked contraceptives, intervention programs and subsidies should be made available with focus on IUDs, implants and injectables which are often out of stock or not available for free.

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