KNOWLEDGE AND PATTERN OF CONTRACEPTIVE USE AMONG TEACHERS IN IBADAN NORTH LOCAL GOVERNMENT AREA OF OYO STATE

BY

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CERTIFICATION

This is to certify that this study titled: 'Prevalence, Knowledge and Pattern of Contraceptive use Among Teachers in Ibadan North Local Government of Oyo State' was carried out in the Department of Epidemiology and Medical Statistics, University of Ibadan under my supervision

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DEDICATION

This project is dedicated to Almighty God who made it possible for me to complete this program and to my little prince Chukwuemeka Ekwesianya.

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I give thanks to Almighty God and Special thanks to my supervisors Dr. IkeOluwapo O. Ajayi and Dr. A.F Fagbamigbe for guiding me through the project work despite their tight schedules may the good Lord bless them richly.

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ABSTRACT

Background: The prevalence of contraceptive use in Nigeria is very low in spite of much effort to create awareness on the various contraceptive methods. The consequential high maternal mortality from many unintended pregnancies and illegal abortions indicates a large unmet need for contraceptive use. Several studies have been carried out on prevalence pattern and knowledge of contraceptive use among different professionals in Nigeria but studies among teachers is deficient. This study was carried out to determine the prevalence, knowledge and pattern of contraceptive use among teachers in Ibadan North Local Government area Oyo State.

Methodology: A cross-sectional study was conducted among 400 male and female teachers of selected secondary schools in Ibadan North Local Government Area of Oyo State. Data on demographic characteristics, knowledge of contraceptives, and contraceptive practices were collected using self- administered semi - structured questionnaire. Knowledge was determined using a three item scale, and all three individual questions were explored with the dependent variable. Attitude on the other hand, was determined based on a10-item scale and further categorized as good and poor attitude. An attitude score of 5 and below was considered "poor attitude" while a score of above 5 was considered "good attitude" on a total cumulative scale of 8. Data was summarized using means, proportions, range and percentages. The association between dependent and independent categorical variables was determined using Chi square while independent predictors of knowledge and use was determine using logistic regression model at 5% level of significance.

Results: Mean age of the respondents was 38.2 ± 8.7 years. Females were 261 (65.2%) and majority 389 (97.2%) have heard of contraceptives source of which was mostly health personnel 189 (48.6). Two hundred and sixty eight (67.0%) reported ever using any form of contraceptive and 223 (55.8%) reported using contraceptive in the last 12 months. Majority 169 (75.8%) reported using modern contraceptive. The main reported purpose of contraceptive use was to delay child bearing, 132 (59.3%). Two hundred and sixty two (65.5%) reported they had spousal support to contraceptive use. 151 (37.8%) showed good attitude to contraceptive use. Gender (p=0.047), marital status (p=0.037) and having children (p=0.002) were significantly associated with contraceptive use in the last 12 months. Result also showed that respondents who had use contraceptive in the last 12 months were significantly higher among those with good attitude towards contraceptive use 101 (66.9%) .

Conclusion: Contraceptive knowledge was high but usage in the last twelve months was low. Contraceptive usage can be improved by properly designed training and re-training of teachers on reproductive health issues especially contraceptives.

Key words: Contraceptive use, Teachers, Contraceptive knowledge, Ibadan, Nigeria

Words Count 435

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LIST OF ACRONYMS

DMPA-Depot-Medroxylprogesterone Acetate

EC-Emergency Contraception

FP-Family Planning

FRN-Federal Republic of Nigeria

HIV/AIDS-Human immunodeficiency virus/acquired immune deficiency syndrome

IBNLGA-Ibadan North Local Government Area

IUD-Intrauterine Device

NDHS-National demographic health survey

NPC-National Population Commission

OCP-Oral Contraceptive Pill

PMD- Patient Medicine dealer

SDM-Standard days method

SFH-Society for family health

STI-Sexually transmitted infections

UNFPA-United Nation Population fund

WHO-World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

Contraception also known as Birth control or Fertility control are methods or devices used to prevent pregnancy, it allows people to attain their desired number of children and determine the spacing of pregnancies. Planning, provision and use of contraceptives is called Family Planning; and it involves conscious effort by a couple to limit or space the number of children they want to have through the use of contraceptive methods. Promotion of family planning and ensuring access to preferred contraceptive methods is essential to securing well-being of women. Benefits associated with contraceptive use include; preventing pregnancy-related health risks in women by reducing rates of unintended pregnancies, reducing the need for unsafe abortion and also reducing maternal mortality, as well as helps to prevent HIV/AIDS. (WHO, 2013). Contraceptive methods are classified either as modern or traditional methods. Modern methods include Female Sterilisation, Male Sterilisation, the Pill, Intra-Uterine Device (IUD), Injectables, Implants, Male Condom, Female Condom, Standard days Method (SDM), and Lactational Amenorrhea method (LAM). Methods such as Rhythm (Periodic Abstinence) and withdrawals are grouped as traditional.

Contraceptive use has increased in many parts of the world, especially in Asia and Latin America, but continues to be low in sub- Sahara Africa. Globally use of modern contraception has risen slightly from 54% in 1990 to 57% in 2012. Regionally the proportion of women age 15-49 years reporting use of a modern contraceptive method has risen minimally between 2008 and 2012, in Africa it went from 23% to 24%, in Asia it has remained 62%, in Latin America and Caribbean it rose slightly from 64% to 67%.

An estimated 222 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception. Reasons for this include; limited choice of methods, limited access to contraception particularly among young people, poorer segments of population or unmarried people, fear of experience of side- effects, gender based barriers, cultural or religious opposition, poor quality of available services, ignorance, misinformation and superstition (Asekun, 2013).

The unmet need for contraception remains high in Africa; 53% of women of reproductive age have unmet need for modern contraception, which is as a result of both growing population and shortage of family planning services. (Gutttmacher Institute, 2012). In Asia and Latin America with relatively high contraceptive prevalence the level of unmet need are 21% and 22% respectively. (WHO, 2013).Work carried out by Ijeoma et al in Nigeria shows that prevalence of contraception among bankers in urban community in Lagos is 71.1% and this high prevalence in the study population was attributed to their level of education and influence of their work environment.

Nigeria is the most populous country in Africa with a total fertility rate (TFR) of 5.5, which has contributed to rapid population growth that outweighs the growth of resources. Overpopulation may worsen poverty among families and communities thereby contributing to high morbidity and mortality. The government has prioritize population control to alleviate poverty which is prevalent in the country with a current population of over 177 million and a growth rate of approximately 2.4 percent per annum, (NDHS, 2013).Uncontrolled population levels such as these can cause a reduction in the 'carrying capacity' of the ecosystem, overexploitation, depletion and pressure on natural resources thus threatening public health.

The prevalence of contraceptive use among currently married women in Nigeria is 15% (NDHS, 2013) this prevalence is very low in spite of the high rate of sexual activity and widespread awareness of the various contraceptive methods among Nigerian adolescence and youths. As a result there are many unintended pregnancies and illegal abortions contributing to a high maternal mortality ratio which seems to indicate a large unmet need for contraceptive use. Unexpected or unplanned pregnancy poses a major public health challenge in women of reproductive age especially in developing countries. According to a study of worldwide trends in pregnancy level carried out from 1995 to 2008, it was estimated that of the 208 million pregnancies that occur annually worldwide, about 86 million (41%) are unplanned, and 41 million (20%) end in abortion (Guttmacher Institute, 2010).

There is ample research evidence identifying the various factors that contribute to the low prevalence of modern contraceptive use in Nigeria, with the most common factor being the myth about the side effects of modern contraceptives. In addition is the lack of political will in Nigeria to provide family planning programs on a much larger scale, using community-oriented approaches and communication programs to help change the myth about the side effects of modern contraceptives. One of such programme could be health education in schools which stands to have a high coverage of at-risk people and who could be peer educators.

Teachers should be able to teach their students on sexuality, the consequences of engaging in unprotected sex, dangers of abortion and the importance of using contraceptives because they're in contact with a majority of adolescents which constitute a major bulk of the population that practices high risk sexual behavior however, many of these teachers shy away from this responsibility because of religious or moral beliefs, and deficiency in their knowledge and confidence to teach the subject. Therefore there is a need to assess their knowledge and

acceptance of contraceptives. Studies on the prevalence and pattern of contraceptive use among teachers are few in Nigeria; hence this study was carried out to assess the prevalence, knowledge and pattern of contraceptive use among secondary school teachers (both male and female) in Ibadan North Local Government Area of Oyo State.

1.1 Problem Statement

Nigeria is the most populous country in Africa and has one of the highest maternal mortality in the world; 576 maternal deaths per 100,000 live births and has a fertility rate of 5.5, (NDHS, 2013) which is strongly associated with poor utilization of family planning services leading to inadequate spacing between births which in turn results high infant mortality and maternal mortality. The main problems associated with non use of contraceptives are non-availability, poor health services, spousal disapproval, religious concerns and misinformation about the effect of birth control (Franklin, 2014).

An estimated 215 million women in the developing world have an unmet need for modern contraceptives meaning they want to avoid a pregnancy but are using a low efficacy traditional family planning method or no method, eighty two percent of unintended pregnancies in developing countries occur among women who have an unmet need for modern contraception, if every woman in the developing world with an unmet need for family planning began using a modern method of contraception, the number of unintended pregnancies each year will decline by 71%. Reducing unmet need for modern contraception is an effective way to prevent unintended pregnancies, abortions and unplanned births (WHO, 2012).

It is worthy to also note that adolescents constitute a significant proportion of abortion seekers in the country and over 60% of females have had sexual intercourse by age 18, whereas over 80% do not use any form of contraceptives. More than 610,000 induced abortion occur

annually in Nigeria and over 60% are attributed to young persons, Statistics also shows that 10,000 women die every year in Nigeria from unsafe abortion carried out by untrained people in unsanitary conditions, this can be leveled down to 27 deaths a day. More than 456,000 unsafe abortions are carried out in Nigeria every year, 20% of pregnancies are unplanned and 50% of this end in abortion, (Guttmacher Institute, 2013). Teachers are in contact with a majority of adolescents which constitute a major bulk of the population that practices high risk sexual behavior, This problem could be prevented if sex education is introduced into the school curriculum and teachers or educators who have the requisite knowledge acquired either by training or personal experiences will transfer this knowledge adequately to young people during their formative years.

1.2 Justification

Teachers are educated individuals that impart knowledge; they have the ability to influence people in their environment or community about the usefulness of contraceptives if they have adequate knowledge about contraceptives and also use it themselves. The utilization of modern contraceptive is an important component of maternal, newborn and child health services, it plays an important role in fertility reduction. (Franklin, 2014).

Several studies on contraceptive use have been conducted among different groups of people like bankers, traders, undergraduate among others but few have been carried out among teachers who are supposed to enlighten their students and people in their environment or community about the benefits of using contraceptives and the dangers associated with non use which include unwanted pregnancy, sexually transmitted infections (STIs), and death as a result of unsafe abortion. This study will assess the knowledge, acceptance and pattern of use of contraceptives

among teachers in Ibadan north local government, in order to provide useful information about contraceptive knowledge and use among teachers who are supposed to be vanguards of contraceptives among adolescents and people around them and also expose any need for intervention in form of training to reduce unwanted pregnancies, unsafe abortions, maternal death, overpopulation and improve contraceptive use and reproductive health in general.

1.3 Research Questions

The study will provide answers to the following questions:

1. What is the prevalence of contraceptive use among teachers in Ibadan north local government?
2. What is the level of knowledge of contraceptives among teachers in Ibadan north local government?
3. What are the contraceptive practices of teachers in Ibadan north local government?
4. What is the relationship between knowledge of contraception and the pattern of use among teachers in Ibadan north local government?

1.4 Objectives

Broad Objective

The main objective of this study is to determine the knowledge and pattern of contraceptive use among teachers in Ibadan north local government.

Specific Objectives

The specific objectives of this study were to:

1. To determine the pattern of contraceptive use among teachers in Ibadan north local government area
2. To assess the level of knowledge of contraceptives among teachers in Ibadan north local government area
3. To determine the contraceptive practices of teachers in Ibadan north local government area
4. To determine the factors influencing contraceptive use among teachers in Ibadan north local government area.

CHAPTER TWO

LITERATURE REVIEW

2.0. Family Planning and Nigeria Policy on Contraception

The Federal Government of Nigeria adopted the National Policy on Population for Development, Unity, Progress, and Self-Reliance in 1988 (FRN 1988). A revised policy in 2004 has included the aim of reduction of maternal deaths by 75%in 2015 in accordance with the Millennium Development Goal Number 5. The National Policy on Population back in1988 encouraged open discussion and promotion of family planning. The goals of the policy were to improve the standard of living of Nigerians, promote health and welfare of the People through the reduction of deaths and disease among women and children, achieve a lower population growth rate through voluntary fertility regulation, and stem the population drift to urban areas (FRN 1988). The specific targets related to family planning were to:

i. Reduce the number of pregnancies in women less than18 years of age and above 35 years of age by 50% in 1995and by 90% in 2000.

ii. Reduce by 50% the proportion of women bearing more than four children in 1995 and by 80% in 2000.

iii. Extend the coverage of family planning services to 50%of women of child-bearing age by 1995 and to 80% by2000.

iv. Reduce total fertility rate to 4.0 by the year 2000 and reduce the population growth rate from about 3.0% per year to 2.5% by 1995 and 2.0 by the year 2000.

An evaluation of the policy and the specific targets of the Nigerian Population Policy (NPP) by Adekunle (Adekunle and Otolorin 2000).indicate a total failure of all set targets for the year 2000.

The population has continued to grow at an annual rate of approximately 3.0% and is now estimated to be about 148 million. The contraceptive prevalence rate, currently at 11%–15%, is far from the estimated 80% expected in 2000. The total fertility rate, although decreased from 6.2 in the earlier half of the decade, is still far from the targeted 4.0. The reasons for the policy's failure are an underestimation of the huge financial resources required for its implementation, the lack of political will, poor and uncoordinated organizational strategies, and Nigeria's prolonged political instability with frequent policy changes (Adekunle and Otolorin 2000).

The public sector and clinic-based, physician-controlled family planning programs carried out by the NPP cannot provide the needed coverage to satisfy the large unmet demand for family planning services, which is currently estimated at over 28%, involving over 4.76 million women, especially in the rural areas and northern part of Nigeria (Adek unle and Otolorin 2000).

2.1. Studies on contraception

Contraceptives vary amongst people of different socio-cultural, educational, religious, or occupational affiliations; it also varies between urban and rural settlements. The level of awareness of contraception is high in most developing countries but the practice of any form of contraception remains low in these countries, the contraceptive prevalence (percentage of women 15-49 years who are practicing or whose sexual partners are practicing any form of contraception) varies widely across nations. In 2008 it was 8% in Sierra Leone, 15% in Nigeria, 16% in Mozambique, 24% in Ghana whereas it was 69% in Netherlands, 79% in United States and Paraguay and 82% in United Kingdom. (Ijeoma, 2013). Among Nigerian women of reproductive age, one in seven (14%) have tried to have an abortion, and one in 10 (10%) have actually ended an unwanted pregnancy, suggesting up to 760,000 induced abortions annually (Bankole et al., 2006).

Study on contraceptive knowledge and practice among teachers of reproductive age in Nnewi, Anambra state shows that the best known method of contraception was the natural method; 46.9% and that the highest knowledge for the modern method was that of condom, 46.4%. This study also revealed that contraceptive prevalence was 40%, awareness and knowledge was high but usage was low (Duru, 2011). Knowledge of contraception was high among married women, Knowledge of a modern method was also almost universal, (98 percent (IDHS, 2007)). However, widespread knowledge of modern methods do not guarantee the success of the family planning program unless they are accompanied by the acceptance and continued use of effective methods (Pasay and Wongkaren, 2001).

Research around the world has found that many factors affect contraceptive use. In a national survey of Kuwaiti women, Nasra M. Shah et al. (2001) found that women's age, parity, educational level, and residence in urban areas were significantly and positively associated with current use. Ojakaa in Uganda (2008) found that numbers of women not using contraception were higher among women with a primary education than among women with no education, but the numbers then decreased among women with secondary or higher education. Moreover, total non users also increased with the number of living children (Ojakaa, 2008). He also found that the lower the economic status of the household, the higher the non users.

Study on contraceptive use in Bangladesh noted that women's education was positively associated with the current use of contraception, as well as husband's occupation, urban residence, visits by family planning workers and desire for more children, women's age was the last significant variables to contribute positively to contraceptive use (Ullah and Chakraborty, 1993). In addition, in Pakistan, women's education also played an important role in relation to

contraceptive use, as literate women were more likely to use contraceptives than illiterate women (Khan and Khan, 2007).

The husband's view on family planning also has been consistently found to be a significant factor affecting contraceptive use in several countries including Indonesia, Sub-Saharan Africa, the Philippines, India, Nepal, Pakistan, Kuwait, and Mali (Joesoefet al., 1988; Bongaarts and Bruce, 1995; Casterline and Sinding, 2000; Shah et al., 2004, Kaggwa et al., 2008). Meanwhile in Ghana, a husband's education had no significant effect on his wife's current contraceptive use (Tawiah, 1997). In Vanuatu, T.K.Jayaraman (1995) found that the number of living children and women's work status were important factors affecting the current use of contraception. While in Uganda,Ntozi, J. P. and J.B. Kabera (1991) found that the low use of modern methods of contraception was caused by the lack of knowledge of supply sources, low education, low levels of employment outside the home, unavailability of supplies, and pronatalist cultures.

Study using data from the 1988 Vietnam Demographic and Health Survey found that women with three or more children were more likely to use a modern method than were those with fewer children. It also found that urban women were more likely to use contraception than rural women (Dang, 1995). While in India, religion was found to be an important determinant of the use of contraception. Muslims and Hindu castes showed a significant lower use of contraception (Bhende et al., 1991) and education was one of the factors that positively affected contraceptive use, whereas women's age was not found to significantly have an impact on contraceptive use (Iyer, 2002). Meanwhile, in Tanzania, women who were exposed to family planning messages were more likely to use contraception (Jato et al., 1999).

The unmet need for contraception remains high in Africa; 53% of women of reproductive age have unmet need for modern contraception, this is as a result of both growing population and

shortage of family planning services. In Asia and Latin America with relatively high contraceptive prevalence the level of unmet need are 21% and 22% respectively. (WHO, 2013). Work carried out by Ijeoma and others shows that the prevalence of contraception among bankers in urban community in Lagos is 71.1%, this high prevalence in the study population was attributed to their level of education and influence of their work environment.

Nigeria is the most populous country in Africa with a total fertility rate (TFR) of 5.5, this contributed to rapid population growth that outweighs the growth of resources. Overpopulation may worsen poverty among families and communities thereby contributing to high morbidity and mortality. The government has prioritize population control to alleviate poverty which is prevalent in the country with a current population of over 177 million and a growth rate of approximately 2.4 percent per annum, (NDHS, 2013).Uncontrolled population levels such as these can cause a reduction in the 'carrying capacity' of the ecosystem, overexploitation, depletion and pressure on natural resources thus threatening public health.

The prevalence of contraceptive use among currently married women in Nigeria is 15% (NDHS, 2013) this rate is very low in spite of the high rate of sexual activity and widespread awareness of the various contraceptive methods among Nigerian adolescence and youths. As a result there are many unintended pregnancies and illegal abortions contributing to a high maternal mortality ratio which seems to indicate a large unmet need for contraceptive use. There is ample research evidence identifying the various factors that contribute to the low prevalence of modern contraceptive use in Nigeria, with the most common factor being the myth about the side effects of modern contraceptives. However, what is lacking is a political will in Nigeria to provide family planning programs on a much larger scale, using community-oriented approaches and communication programs to help change the myth about the side effects of modern

contraceptives. Unexpected or unplanned pregnancy poses a major public health challenge in women of reproductive age especially in developing countries, according to a study of worldwide trends in pregnancy level carried out from 1995 to 2008, it was estimated that of the 208 million pregnancies that occur annually worldwide, about 86 million (41%) are unplanned, and 41 million (20%) end in abortion (Guttmacher Institute, 2010).

2.2. Contraceptive Methods

Contraceptive use and choices vary widely in Nigeria according to type of health facility, geopolitical zone, and within urban or rural settings. Various factors, related to both supply and demand, account for these variations and contribute to the low levels of contraceptive use and choices in Nigeria.

On the supply side are issues such as limited availability, quality, and cost of family planning services. As a consequence of limited availability, many Nigerians (particularly in rural areas) lack access to modern contraceptive and family planning services. In areas where services do exist their quality is often poor, with inadequate contraceptive supplies, insufficient numbers of trained service providers, poor interpersonal skills on the part of providers, and limited essential equipment (Askew et al., 1994; Feyisetan et al., 1996).

Research on factors associated with demand for contraceptives and family planning services in Nigeria has identified the relative powerlessness of women (especially in northern Nigeria), household poverty, low level of education (especially in northern Nigeria), myths and rumors about modern contraceptive methods, parity, pronatalist attitudes, and widespread preference for male children, as key influences on contraceptive use (Feyisetan et al., 1996). In addition to these factors, and especially in northern Nigeria, early marriages and early initiation of sexual activity

have contributed significantly to the high fertility and subsequent higher prevalence of maternal and fetal complications. (Babalola et al., 2008). The majority of contraceptive users rely on a modern method (10 percent of currently married women) and 5 percent use traditional Methods. Among the modern methods, injectables (3 percent), male condoms (2 percent) and the pill (2 percent) are the most common methods being used. The practice of all other modern methods is far less (under 1 percent). Interestingly 3 percent use withdrawal as a method of contraception (NDHS, 2013). A study on contraceptive knowledge and The various contraceptive choices and related issues peculiar to Nigeria are outlined below:

i. Condoms

According to the 2013 Demographic and Health Survey, the condom is reported to be the main contraceptive method known of and used by Nigerian women of reproductive age. condom is a sheath-shaped barrier device that may be used during sexual intercourse to reduce the probability of pregnancy and spread of sexually transmitted infections (STIs/STDs) such as HIV/AIDS. Condoms are most often made from latex, but some are made from other materials such as polyurethane, polyisoprene, or lamb intestine.

Female condom is also available, often made of nitrile.(Guttmacher,2007) The extensive marketing of condoms in response to the human immunodeficiency virus (HIV) epidemic, with the active involvement of both government and non-governmental organizations, has been responsible for this increased awareness and subsequent increase in condom use. Condoms are also the preferred choice for postpartum contraception, especially among educated women with high parity (NPC 2003). Studies in Nigeria have indicated that because patent medicine stores are common sources of contraceptives and because condoms are readily available over the counter at these stores, there is much less restriction on contraceptive purchases and use

compared with the family planning clinics and health facilities where there are more restrictions. (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000; NPC 2003).

ii. Oral Contraceptive Pills

Oral contraceptive pills are readily available over the counter like condoms at patent medicine and pharmacy shops in Nigeria and are also available at the health facilities .Oral contraceptives are hormonal preparations that may contain combination of the hormones estrogen and progestin or progestin alone. They are medications that prevent pregnancy by inhibiting the release of luteinizing and follicle stimulating hormone from the pituitary gland in the brain; it is the second contraceptive method of choice for women of reproductive age, particularly younger unmarried females and students (NPC 2003). A significant problem in Nigeria is a general lack of adequate information about the OCP.

The myth that prolonged use of the OCP leads to permanent sterility has limited its use in Nigeria and may explain why most young females in Nigeria, especially students, prefer to use abortion instead of contraception for unwanted pregnancy.

iii. Intrauterine Contraceptive Device (IUCD)

The IUCD is very popular and widely used in Nigeria, particularly by older married women. IUD is a small contraceptive device, often T-shaped containing either copper or hormone (levonorgestrel) form of progestin which is inserted into the uterus, they are one form of long acting reversible contraception, it works by stopping the survival of sperm or by stopping fertilized egg from implanting in the womb(Winner et al.,2012) Studies carried out in the Nigerian cities of Lagos (Adegbola and Ojengbede 2008), Benin (Olatinwo et al., 2001), Ibadan (Okunlola et al., 2006), and Ilorin (Olatinwo et al., 2001), specifically concerning use of and

reasons for discontinuation of the IUCD indicate that the majority of women in these areas are in the age range 31.7 ± 5.7 years with a mean parity of 4.0.

The most common reason for discontinuation of IUCD use was a desire for pregnancy, especially among those younger than 35 years. Other reasons for discontinuation were side effects (mainly heavy menstrual bleeding), spousal disapproval, fear of infertility, and menopause. Experiences of "having a foreign body" or a missing IUCD and expulsion were also reasons for discontinuation. In many of these instances, the levonorgestrel IUCD should be considered because it tends to reduce menstrual bleeding and has a longer duration of action which would ultimately lead to a reduction in the high IUCD discontinuation rate. Unfortunately, the levonorgestrel IUCD is not available in Nigeria (Abasittai et al., 2008). It is envisaged that the introduction of this device in many centres in Nigeria would lead to an increased acceptance of this method by multiparous and grand multiparous women (Abasittai et al., 2008).IUCDs are also a common post partum contraceptive choice, especially for older women of high parity (Adegbola and Okunowo 2009).

iv. Hormonal Contraceptive Injection/Implant

The contraceptive implant is a hormonal implant the size of a matchstick that is inserted under the skin at the inner side of the upper arm, this four cm-long implant contain ectonogestrel, a progesterone-like hormone that stops ovulation or prevent sperm from getting through by making the fluid at the opening to the uterus thicker, the contraceptive injection contains the hormone depot medroxyprogesterone acetate (DMPA), it lasts for 12-14 weeks and also works like implant.

There are few studies in Nigeria concerning the use of hormonal contraceptive injections and subdermal implants, probably because these are not common choices. In addition, women

fear the side effects of these hormonal methods of contraception, probably because of misinformation (Falase et al., 1988). Study was conducted in Ibadan in which 810 patients who used depot-medroxyprogesterone acetate (DMPA) as a contraceptive method were followed over a period of 11 years. Amenorrhea, menorrhagia, and metrorrhagia were the major reasons for discontinuation of DMPA in only 11% of the patients. This low discontinuation rate is indicative of the effectiveness of this method in this population which should therefore be available for suitable women who demonstrate oestrogen intolerance.

The levonorgestrel subdermal implant was introduced in 1985, and is the most commonly available long-acting progestin-only subdermal implant in Nigeria. During its first year of use, Norplant was shown to be highly effective and safe, and is considered an acceptable contraceptive method among Nigerian women of different ethnic groups (Ladipo et al., 2005). The pooled Norplant continuation rate was shown to be 90.1% after 12 months, 84.9% after 24 months, and 77.1% after 36 months of use. Other studies on Norplant acceptability, effectiveness, common side effects, and reasons for discontinuation among Nigerian women have been carried out in Benin City (Aisien 2007), Zaria (Haggi 2003) and Calabar (Ekabus 2007).

These studies showed a promising future for implant contraceptives in Nigeria, particularly in the Hausa and Muslim communities of northern Nigeria where contraceptive use has been generally low (Haggi, 2003). Another study in Enugu (Ezegwui et al., 2005) where the subdermal Norplant was inadvertently used by women for a prolonged period of time (up to 10 years) instead of the recommended five years, showed an effectiveness rate of100%. The most common reason for not having the implant removed at five years was forgetting the date of removal and moving to another town where removal was not possible because of lack of trained

health personnel. Subdermal implants are offered to women at family planning clinics in the tertiary/specialist hospitals, which are urban-based and staffed by gynaecologists.

Woman who migrates to a peripheral region or district after receiving the implant will not have access to trained health personnel at the local health center or rural hospital to remove the implant after five years. Other reasons for prolonged use of implants includes inability to afford the cost of removal (after five years), the belief that the implant was still working, and, in a few instances, unavailability of implants at the health facility at the time of removal, so that women continue to use the implants after the recommended five years' duration (Ezegwuis et al., 2005).

v. Female Sterilization

Female sterilization is a permanent procedure to prevent pregnancy by blocking the fallopian tubes. There are two main types; surgical and non surgical, a surgical procedure is tubal ligation in which the fallopian tubes are cut or sealed, and non surgical method is one in which devices are inserted through the vagina and uterus to block or seal the fallopian tubes preventing the sperm from reaching the egg. (Patricia, 2014).

Tubal ligation is not a common or acceptable contraceptive choice in Nigeria. However, this method is commonly used worldwide, especially in developed countries and in some developing countries in Asia and South America (Adesiyun, 2007). Many factors can influence decision-making about sterilization in Nigeria, including religion, ignorance, and superstition based on ancient beliefs, even among more literate members of the community (Adesiyun, 2007). The acceptability of sterilization in Nigeria and other developing countries might be influenced by the high cost of the procedure, scarcity of skilled providers (especially in rural areas), and fear of surgical complications.

Nigerian studies have shown that the demand for tubal ligation is low, but is commonly accepted in conjunction with another surgical procedure, such as a caesarean section or laparotomy for repair of uterine rupture (Adesiyun 2007; Ezegwu et al., 2004). Possible surgical complications when using the Pomeroy's technique of tubal ligation via laparotomy or the mini-laparotomy route (the latter being the most common) include uterine perforation, bladder and intestinal injuries, and intra-abdominal bleeding, although the occurrence of these complications were found to be minimal (Adesiyun 2007; Ezegwu et al., 2004).

vi. Male Sterilization

Male sterilization or vasectomy is a form of contraception that involves surgically cutting or blocking the tubes that transport sperm from the testicles to the penis, it is a permanent form of birth control. Male sterilization is very rare among Nigerian men. There were only two cases of voluntary vasectomy performed over a 30-year period at University College Hospital in Ibadan (Akinwuntan and Shittu 2008). In a study in Jos, northern Nigeria, only10 cases of vasectomies were recorded over a 16-year period compared with 3,675 female sterilizations. Eighty percent of the men who underwent a vasectomy were well educated, with 20% of them being medical practitioners. Although the procedure is simple, safe, and effective, it is not readily accepted as a method of fertility control in Nigeria (Akinwuntan and Shittu 2008; Mutihir et al., 2004).

This low incidence has been attributed to male attitudes, whereby men are perceived to be more interested in proving their virility than female in family planning (Adekunle et al., 2000). In addition, Nigerian men are afraid that vasectomy will hurt their sex drive, which they treasure for fertility reasons, especially in polygamous relationships (FRN 2004). For these reasons, very

few men in Nigeria who know about this method would choose it as a contraceptive method (Akinwuntan and Shittu, 2008).

vii. Emergency contraception

Emergency contraception or post-coital contraception refers to methods of contraception that can be used to prevent pregnancy in the first few days of intercourse; it is intended for emergency use following unprotected intercourse. The emergency contraceptive pill regime recommended by WHO is one dose of levonorgestrel 1.5mg, taken within five days (120 hours) of unprotected intercourse. (WHO, 2012).

Knowledge and attitudes towards the use of emergency contraception (s) have been reported by a national cross-sectional survey of the Nigerian population. The various groups surveyed included unmarried women in the community (Obi and Ozumba, 2008), female undergraduate students (Akani et al., 2008), health care providers (Adekunle et al., 2000) private medical practitioners (Okonofua et al., 2009) and men (Odu et al., 2006). All studies concluded that there is very poor knowledge of EC in Nigeria, even among private medical practitioners. There are very few programs in Nigeria designed to increase the awareness of EC in spite of the very high maternal mortality rate associated with induced abortions which occur as a consequence of unwanted pregnancies (Ellerton et al., 2000).

In a cross-sectional sample of potential providers of EC conducted by the Society for Family Health (SFH 1998), 81%approved of EC. The reasons cited for disapproval of EC in this study included religion (5%), potential side effects (3%), and the belief that EC leads to permanent infertility (29%) (SFH, 1998). In the same Society for Family Health survey, only 8% of the providers had training in EC, only two providers knew both the correct dose and correct timing of EC, and no provider knew both the correct dose and timing. Private medical

practitioners provide a substantial proportion of family planning and reproductive health services in Nigeria, but the study by Okonofua (Okonofua, 2009) showed that while 79.9% of doctors correctly described EC methods, only 23% reported that they had EC products in their clinics, and only 13.8% used the correct brand and doses currently available in Nigeria.

Similarly a large proportion of the doctors did not know the exact timing of EC in relation to sexual intercourse, while only a few gave correct names and dosages of administration. Traditional fertility methods for post-coital EC use in Nigeria include use of gin, codeine tablets, and potash mixed with blue and lime taken with pepper seeds.

2.3. Sources of information on contraception

Various studies in the six geopolitical zones of Nigeria have indicated that the main sources of information about contraception, in descending order of frequency, include friends/siblings, radio/television/newspapers/magazines, school lectures/workshops/seminars, and health workers (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000).The poor contribution of health workers to dissemination of contraceptive information is worrisome. More reliable information should emanate from health workers at the family planning clinics but, in Nigeria, the family planning clinics are not young women- or adolescent-friendly (Abiodun and Balogun 2009).

The main reason for this unfriendliness is rooted in the cultural fabric of Nigerian society where many still regard family planning services as the preserve of married people (Otoide et al., 2001; Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000). In addition, a discussion on sex and contraception with young persons is still considered inappropriate in Nigeria, even among health workers (Otoide et al., 2001; Abiodun and Balogun 2009).

Therefore, there is a great need in Nigeria to promote youth-friendly reproductive services to encourage sexually active young people to increase their contraceptive use. However, this must begin by mass education of the adult population in Nigeria to change the cultural norms about sex education in adolescence. Recent observations in some centers and communities indicate staffs in health centers are becoming an important source of information, especially in southern Nigeria (Abasiattai et al., 2008). This is probably because of the increased level of education among women and mothers in southern parts of Nigeria (Abasiattai et al., 2008).

Various studies in the six geopolitical zones of Nigeria have indicated that the main sources of contraceptives, in decreasing order of frequency, are patent medicine stores, pharmacy shops, friends/siblings/partners, and health facilities (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000). Among the health facilities the availability of contraceptives is higher at private clinics than at government family planning and maternal health clinics or hospitals (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000). In addition, more married than single women receive contraceptives from the government-run health facilities, including hospitals (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000).

Studies in Ghana and Kenya have also shown that these commodities are obtained mainly from the private sector. In contrast, in countries like Zimbabwe and Tanzania, where there is strong government involvement in the provision of family planning services, the majority of users obtain oral contraceptives and condoms from the public sector (Chen et al., 2003). This public sector-driven commodity source of contraceptives is also seen in India and Indonesia (Ramesh et al., 1996; Mize and Byrant 2006).

The trend of the patent medicine shop being the most important source of contraceptive commodities in Nigeria is worrisome. The type of information obtained on contraception from a patent medicine shop is likely to be incorrect because these shops are managed by traders who themselves may have little or no knowledge of contraceptives. Unfortunately, the 'pharmacy shops which are managed by qualified pharmacists are few in number and are limited to the urban areas. The patent medicine dealers, however, are more numerous and found in the vast number of rural and peripheral villages, where 60%–70% of the population resides. It is also in these rural areas that there are no practising pharmacists or doctors to advice on contraceptive choices. In most communities in Nigeria, single women are therefore more likely to obtain contraceptive information and commodities from patent medicine dealers, because single women are not culturally accepted at conventional family planning clinics, especially those run by the government (Oye-Adediran et al., 2005).

Religion and Christian denomination have also been shown to have an influence on contraceptive usage. Research by Oye-Adeniran (Oye-Adediran et al., 2005) has shown that while the Roman Catholics get their contraceptives mostly from patent medicine shops, the majority of Christians get theirs from general hospitals. Catholic patronage of patent medicine shops and market places may be connected with a religious objection to the use of modern contraceptive methods. Muslims in the same study also patronized the patent medicine shops more often because of the reported high disapproval by Muslims of contraceptive use (Oye-Adediran et al., 2005). In the same survey, the age of the respondent was also important in the source of contraceptive commodity.

Most adolescents used patent medicine shops, but from the age of 25 years there is a greater tendency to obtain contraceptives from the private/general hospitals. This finding is

largely due to societal disapproval of sex before marriage, the group to which most adolescents belong. Adolescents are also most likely to obtain condoms and OCPs over the counter at patent medicine shops where these cultural inhibitions are less evident. Unwanted pregnancy and unsafe abortions are more common among young persons (15–24 years), yet it is this same age group that Nigerian cultural forces have prevented from benefiting from adequate information regarding contraception.

2.4. Consequences of Contraceptive non use

Many Nigerian women of reproductive age experience an unwanted pregnancy and resort to abortion (Otoide et al., 2001) According to a DHS survey of women in southwestern and northern Nigeria, at least 20% reported having experienced an unwanted pregnancy (NPC 2004). The 2003 DHS found that of the total live births reported in the three years prior to 2003, 15% were also reported to be unplanned (NPC 2004).

Community-based survey of 2,093 women aged 15–49 years about the factors associated with unwanted pregnancy was conducted in eight states of Nigeria in 2002–2003. The results indicated that28% of women reported having an unwanted pregnancy and of that 28%, half reported having attempted to end their last unwanted pregnancy. Forty-three percent of the women who sought an abortion did so because they were either not married, too young, or still in school. Of the women who were not practising contraception, 44% said they were unaware of family planning services, 22% stated that they did not have access to contraceptive services, contraceptive services were too expensive, or they were afraid of side effects.

Therefore, at the time of that survey, 27% were at risk of unwanted pregnancy and almost 50% were unaware of contraceptive methods.

Unwanted pregnancy is the leading cause of unsafe abortion in Nigeria. Abortions contribute to 20%–40% of all maternal deaths, constitute an economic drain on the Nigerian health system, are expensive for women (Henshaw et al., 2008), especially for those who develop complications leading to pelvic inflammatory disease (PID), infertility and/or ectopic gestation (Henshaw et al., 2008). It has also been noted that some women use abortion as a means of child spacing instead of using modern contraception (Otoide et al., 2001). Fear of future infertility was the overriding factor in adolescents' decisions to rely on abortion rather than contraception (Otoide et al., 2001).

Many perceived the adverse effect of modern contraceptives on fertility to be continuous and prolonged, while abortion was seen as an immediate solution to an unplanned pregnancy (Otoide et al., 2001). Despite the legal restriction on abortion in Nigeria, 27% of physicians in private practice perform the procedure (Henshaw et al., 2008).Indirect evidence from the 1990 and 2003 DHS suggests that the number of abortions occurring in Nigeria is on the increase. For example, the percentage of women aged 21–24 years who had premarital sex before the age of 20 years, making them likely to be at risk of unwanted pregnancy during their adolescent years, increased from 27% in 1990 to 32% in2003 (NPC 2004). In both surveys, contraceptive use remained low, with the 2013 DHS suggesting that only 15% of married women used any contraceptive method.

The World Health Organization medical eligibility criteria for contraceptive use (WHO 2004) provide evidence-based recommendations on whether or not an individual can safely use a particular contraceptive method. A visit to a family planning clinic is important because it provides an opportunity for screening and diagnosis of incidental medical conditions (WHO 2004).For many apparently healthy young women in most parts of Nigeria, a visit to a family

planning clinic may be their first contact with a healthcare facility. In a study done in Calabar (Ekabua et al., 2009), incidental medical findings were diagnosed in 26.9% of women presenting for screening, and reproductive tract infections constituted51.1% of the medical disorders. However, this study also showed that incidental medical conditions could be a barrier to contraceptive acceptance and use because of poverty, with low contraceptive use being more significant in women with high parity and low socioeconomic status.

The prevailing poverty in Nigeria works against the benefits of early diagnosis of incidental medical conditions at family planning clinic, e.g., malignancy of the female genital tract and heart disease. Early diagnosis and prompt treatment should be an advantage but, as a result of poverty, many of these women default and are lost to follow-up (Ekabua et al., 2009).

2.5. Factors influencing use of Contraceptives

Research and rigorous clinical trials have led to improvement in existing methods of contraception and also to the development of new, more effective and acceptable contraceptive methods with fewer side effects Extensive (Abasittai, 2006). The prevalence of contraceptive use has increased worldwide due to the development and introduction of modern contraceptives and the establishment of organized family planning programs (D'Arcanques et al., 2002).

The contraceptive prevalence rate in many developing countries rose from 9% in the 1960 to 60% in 1997, and this has helped in reducing the total fertility rate of some developing countries (the lifetime average number of children per woman) from 6.0 in 1960 to 3.1 in 1997 (NPC 2003). The proportion of Nigerian women using modern contraceptive methods rose from 3% in 1990 to 8% in 2003, the low rate of contraceptive use in Nigeria results in high fertility rates, particularly in the rural areas and the northern part of the country.

This high fertility rate accounts for Nigeria's high maternal, infant, and neonatal mortalities, and the use of modern contraceptive methods has been reported to be very limited in the northern part of Nigeria, with only 9% of Nigerian women reported to be using these in 2003. In addition, only 3% of women from the northeast and the northwest reported using a modern method, compared with 23% in the southwest (NPC, 2003). These data correlate well with the high fertility rate in the northern part of the country.

According to the 2003 Nigeria Demographic and Health Survey, the country's overall fertility rate was 7.0 children per woman in the northeast and 6.7 children per woman in the northwest, compared with only 4.1 in the southwest (NPC, 2003).This survey have shown that there is still a large unmet need for contraceptive use in Nigeria (NPC, 2003). Several studies in the six geopolitical zones in Nigeria indicate that contraceptive knowledge and awareness, especially among female students aged 15 to 24 years, is very high.

In one study done in Ilorin (Abiodun and Balogun 2009), the methods mostly known by respondents were the condom (69.0%), the oral contraceptive pill (OCP, 38.8%), IUCD (29%), and periodic abstinence (32.9%), with most respondents being able to name at least one method of contraception. Unfortunately, all of the studies that showed good knowledge and awareness but did not show a strong prevalence of use of contraception, Instead, these studies showed a high level of sexual activity corresponding with a low contraceptive prevalence. The average age of sexual debut in many of the studies ranged between12 and 20 years, with a mean age of 16 ± 1.2 years.

The consequence of high sexual activity and low contraceptive use is an increased frequency of unplanned pregnancies and subsequent induced abortions or unplanned deliveries.

Studies reveal that a high percentage of adolescents and young adults have had at least one unwanted pregnancy leading to induced abortion (Abiodun and Balogun 2009). The reasons given in these studies for not using contraceptives were fear of side effects, objections from their partner, conflicts with their religious beliefs, objections from family members, not thinking about using contraceptives, not having sexual intercourse to have baby, and unplanned sexual debut (Abiodun and Balogun 2009; Oye-Adediran 2005; Amazigo et al., 1997; Akpani and Akpani 2000).

2.6. Contraception among teachers

Study on contraceptive knowledge and practice among female teachers of reproductive age in Nnewi, Anambra state shows that the best known method of contraception was the natural method; 46.9% and that the highest knowledge for the modern method was that of condom; 46.4%, this study also revealed that contraceptive Prevalence was 40%, awareness and knowledge was high but usage was low (Duru, 2011).

By the age of 20 years, majority of adolescents will be sexually active whether they are married or not. Among them, unprotected sexual intercourse with multiple or casual partners are rife. They do not use contraceptives and many of them lack the basic information about sexual matters and sexually transmitted diseases (STDs). These result in a high rate of unwanted pregnancies and sexually transmitted infections (STIs), including HIV infection. Adolescents therefore need appropriate information and skills to help them take right sexual decisions.

The school is one of the avenues to reach adolescents with reproductive health information; this has the advantage of a captive audience with wide coverage. In the past few years many teachers in the Southwest of Nigeria have been trained to give sexual health information to adolescents. However, recent attempt to evaluate some sexuality education

programmes revealed that resistance from teachers who were to implement the programme had limited the effectiveness of training. Evaluation has further suggested that giving health information may not be enough to encourage safe sex.

Programmes must also teach adolescents how to use condom and make condom easily available in accessible places including schools to promote consistent and correct condom use. Presently, condom education and provision in schools has been introduced as part of AIDS control programme in some public schools in America. Unless programme implementers are convinced of the need for various strategies, interventions may not be effective.

CHAPTER THREE

METHODOLOGY

3.1. Study Site

The study site for this study was Ibadan North Local government area of Oyo State; it has a total of 83 secondary schools (both public and private). This Local Government cover areas between Beere, Roundabout through Oke-Are to Mokola, Oke-itunnu and Ijokodo. The other components are areas from Gate, Idi-Ape to Bashorun and up to Lagos/Ibadan expressway, Secretariat, Bodija, University of Ibadan and Agbowo areas. (Olusegun, 2001) Ibadan north local government has its headquarters at Agodi in Ibadan. It has an area of 27km squared and a population of 308,119 at the 2006 population census.

The Local Government Area was chosen because it is the largest of all the Local Governments area in Ibadan. It is multi-ethnic (but predominantly Yoruba); there are a total number of 83 secondary schools, 36 governments and 47 private that are registered under the local government. Majority of the teachers were females and are married with age ranging from 20 to 60 years, most of them had a BSc. degree, practised Christianity and were from Yoruba ethnicity. Excurricula activities in the school includes; Counselling of students with personal issues, sports, excursions, competitions like cooking competition; all this activities are supervised by the teachers.

3.2. Study Design

A cross-sectional design was used for this study. Pretested semi-structured questionnaire was administered to teachers selected from Ibadan north local government area of Oyo State using multistage sampling to obtain data on contraceptive knowledge and pattern of use.

3.3. Study Population

Male and female teachers working in selected secondary schools in Ibadan North Local Government area of Oyo state were interviewed using pretested semi- structured questionnaire. Teachers were enrolled from seventeen (17) schools (including 10 public schools and 7 private schools).

3.4. Sample size Determination

The sample size (n) was determined using Lwanga and Lemeshow (1991) sample size formula:

$$N = \frac{Z^2pq}{d^2}$$

z= the standard normal deviate which corresponds to the 95% confidence level (1.96)

p= based on the finding that 40.0% prevalence of contraceptive use among teachers in Nnewi, Nigeria (Duru, 2011)

q= 1-p (1-0.4= 0.6)

d= degree of accuracy desired (0.05)

$$N = \frac{1.96^2 \times 0.4 \times 0.6}{0.05^2} = 369$$

Adjusting for a 10% non-response, 1-10/100 = 0.9

369/0.9 = 410

A Minimum sample size was 410 participants

3.5 Sampling procedure

Multistage sampling technique was used to select the sample population as follows:

Stage 1: Selection of secondary schools

From the sampling frame obtained from Oyo State Ministry of Education, simple random sampling was used to select 17 schools out of a total number of 83 secondary schools in Ibadan.

Stage 2: Selection of number of respondents in each school

Probability proportionate to size sampling was used to select total number of teachers from each school. To determine the number of teachers to be selected from each school, the number of teachers in each selected school was divided by the total number of students in all 17 schools, multiplied by the sample size (N).

$$\frac{\text{Number of teachers (each school)}}{\text{Total number of teachers (all 17 schools)}} \times \text{Sample size (N)}$$

Table showing selection of number of respondents in each school

Name of school	Type of school	Number of teachers in the school	No of teachers selected
Polytechnic High School, Poly. Campus	Public	50	$\frac{50 \times 410}{631} = 32$
Anglican Commercial Gramm. Schl., Total garden	Public	45	$\frac{45 \times 410}{631} = 29$
Community High School, Samonda	Public	40	$\frac{40 \times 410}{631} = 26$
Community Sec. Schl., Sango	Public	39	$\frac{39 \times 410}{631} = 25$
Methodist Sec. Schl., New Bodija	Public	67	$\frac{63 \times 410}{631} = 44$
Abadina Grammar Schl., Ibadan	Public	35	$\frac{55 \times 410}{631} = 23$
Community Gramm. Schl., Ijokodo	Public	60	$\frac{60 \times 410}{631} = 39$
St. Gabriel Sec. School, Sabo	Public	55	$\frac{55 \times 410}{631} = 36$
Community Gramm. Schl., Mokola	Public	65	$\frac{65 \times 410}{631} = 42$
St. Patrick's Gramm. Schl., Orita Bashorun	Public	48	$\frac{48 \times 410}{631} = 31$
Maverick College	Private	20	$\frac{20 \times 410}{631} = 13$
Walbrook College	Private	25	$\frac{25 \times 410}{631} = 16$
Starlite College	Private	15	$\frac{15 \times 410}{631} = 10$
Marella College	Private	18	$\frac{18 \times 410}{631} = 12$
Reliance Int. High Schl.	Private	20	$\frac{20 \times 410}{631} = 13$
Starlite College	Private	17	$\frac{17 \times 410}{631} = 11$
Sterling College	Private	12	$\frac{12 \times 410}{631} = 8$
	Total	631	410

Independent Variables: The independent variables in this study were socio demographic information which included; age, gender, educational qualification, specialty taught, years of teaching experience, ethnicity and parity. The knowledge and attitude towards contraceptive use was also explored.

3.8. Data Analysis

The completed questionnaire were serially numbered for control and recall purposes on a daily basis after collection until the end of the data collection process. Each completed questionnaire was checked for completeness and accuracy on a daily basis. The Statistical Package for Social Science (SPSS) version 20 was used for data entry and analysis of the data. Summary statistics was presented using frequency tables. Knowledge assessment was based on a three item question, and all three individual questions were explored with the dependent variable to ascertain association. The assessment of attitude on the other hand, was based on a10-item question and further categorized as good and poor attitude. An attitude score of 5 and below was considered "poor attitude" while a score of above 5 was considered "good attitude" on a total cumulative scale of 8. Bivariate analysis was carried out to assess the relationship between the outcome variables (contraceptive use within the last 12 months) and other independent variables including socio-demographic characteristics, knowledge and attitude towards contraceptive use. Variables that were statistically significant at bivariate analysis were included in the binary logistic model. A p-value of 5 % or less was considered statistically significant.

3.9 Ethical considerations

Ethical approval for the study was obtained from Oyo State Ethical Review Committee. Voluntary written informed consent was also obtained from each participant after obtaining permission to carry out the study from the head/school authority of each of the selected schools.

CHAPTER FOUR

RESULTS

4.1. Socio-Demographic Characteristics of Respondents

A total of 400 teachers were sampled from both public and private secondary schools, and all gave response to the questionnaire giving of a total response of 100%.

Tables 4.1 and 4.2 show the socio demographic characteristics of the respondents. Results showed that 261 (65.2%) of the teachers were females, their mean age was 38.2 ± 8.7 years, ranging from 20 – 60 years. More than half of the respondents 218 (54.5%) were aged above 40 years, while 179 (44.8%) were less than 40years of age.

Majority of the respondents had a BSc degree 327 (81.5%), were married 300 (75.0%), practised Christianity 353(88.3%) and were of the Yoruba ethnicity 364 (91.0%). The mean average monthly income was N50,000 (IQR: 25,000 – 70,000) with majority of the respondents 301 (75.2%) earning above N20,000 monthly, while 60 (15.0%) earned below N20,000 monthly. More than half of the respondents 223 (55.8%) had children, while 81(24.0%) had no children. The mean years of teaching experience was 10.83 ± 7.534 years and 222 (53.5%) reported teaching for 10years or more, while 172 (43.0%) had been teaching for less than 10 years. The arm of class taught was distribute between SSS classes 278 (69.55%) and JSS classes 107 (26.8%). Teachers taught either Science subjects 129 (32.2%), Arts subjects 123 (30.8%), or commercial subjects 54 (13.5%).

Table 4.1: Socio demographic characteristics of the Respondents

	Frequency	Percent
SEX		
Female	261	65.2
Male	135	33.8
AGE		
< 40yrs	179	44.8
> 40 yrs	218	54.5
Educational qualification		
Grade II	14	3.5
NCE	23	5.8
BSc	327	81.5
MSc	32	8.0
PhD	3	0.8
Marital status		
Married	300	75.0
Single	93	23.2
Divorced	5	1.2
Widowed	1	0.2
Religion		
Christian	353	88.3
Islam	46	11.5
Ethnicity		
Yoruba	364	91.0
Others	20	5.0
Have children		
Yes	223	55.8
No	81	24.0
Class taught		
JSS	107	26.8
SSS	278	69.5
Specialty taught		
Science	129	32.2
Arts	123	30.8
Commercial	54	13.5
Income		
<20000	60	15.0
≥20000	301	75.2
Years of teaching experience		
< 10 yrs	172	43.0
≥ 10 yrs	222	55.5

4.2.Knowledge and pattern of contraceptive use among respondents

Table 4.2 shows the knowledge and pattern of contraceptive use among respondents. Majority 389 (97.2%) of the respondents have heard of contraceptives, mostly from health personnel 189 (48.6%), the media 123 (31.6%) and seminars/trainings 45 (11.6%). Two thirds of the respondents 262 (67.3%) said they knew where to access condom; while 268 (67.0%) reported ever using any form of contraceptive, a little less than those who ever used contraceptives 223 (55.8%).reported using a contraceptive in the last 12 months

Out of those who reported using contraceptive in the last 12 months, majority 169 (75.8%) reported using modern contraceptive methods while 53 (23.8%) used traditional methods. Similarly, more than half of respondents who used a contraceptive in the last 12 months reported getting their contraceptives from a pharmacy 123(55.2%), while others got theirs from either a hospital 65 (29.1%), a local shop 22 (9.9%), or from other sources 3(1.3%).

The main purpose for using contraceptives was for child spacing/delay 132 (59.3%); other reasons included to prevent pregnancy 60 (27.0%), wanting to finish study 20 (9.1%) or waiting to get employment 10 (4.6%).

About half of the respondents 211 (52.8%) said they have discussed family planning with a health worker, 261 (65.2%) of respondents reported discussing contraceptive use with their spouse and 263 (65.5%) reported that their spouse supported contraceptive use.

Table 4.2.Knowledge and pattern of contraceptive use among respondents

	Frequency	Percent
Ever heard of contraceptives		
Yes	389	97.2
No	10	2.5
Where did you hear of contraceptives (N=389)*		
Health personnel	189	48.6
Media	123	31.6
Seminal/training	45	11.6
Others	32	8.2
Know of any place to get a condom?		
Yes	262	67.3
No	44	11.3
Ever used any form of contraceptive		
Yes	268	67.0
No	129	32.3
Used contraceptive in the last 12 months?		
Yes	223	55.8
No	172	43.0
Which Contraceptive used in the last 12 months N=223)**		
Traditional method	53	23.8
Modern method	169	75.8
Purpose for using contraceptives*		
Child delay	132	59.3
Do not need more children	60	27.0
Delay study	20	9.1
Delay employment	10	4.6
Where do you get your contraceptives (N=223)**		
Pharmacy	123	55.2
Hospital	65	29.1
Local shop	22	9.9
Others	3	1.3
Discussed family planning with a health worker		
Yes	85	21.2
No	211	52.8
Discussed contraceptive with your spouse		
Yes	261	65.2
No	124	31.0
Spouse support contraceptive use		
Yes	262	65.5
No	115	28.8
Ever tried to delay pregnancy		
Yes	163	40.8
No	131	32.8

* Total number of participants who have heard of contraceptives.

** Total number of participants who have used contraceptive in the last 12 months

4.3 Attitude towards contraceptive use

Table 4.3a shows the frequency distribution of responses to statements on attitude towards contraceptive use. More than half of the respondents 229 (57.2%) disagreed that contraceptive was a woman's business and that contraceptive information should only be for married women 207 (51.8%). Only a few respondents agreed that contraceptives caused cancer 113 (28.2%), pills were inconvenient to use 135 (33.8%), and women who used contraceptive may become promiscuous 82 (20.5%). About 218 (54.5%) of the respondents agreed that contraceptive can be used several times in a month, while 217 (54.2%) agreed that excessive usage may lead to incorrect usage. About 155 (38.8%) agreed that traditional contraceptive was the best, while 162 (40.5%) disagreed. Majority of the respondents 314 (78.5%) agreed that the sale of contraceptive should be limited to health centres.

Overall, only one-third 132 (33.0%) of the respondents had positive attitude towards contraceptive use, while the majority 253 (63.2%) had negative attitude towards contraceptive use (Table 4.3b).

Table 4.3a: Respondents' Attitude toward contraceptive use

Description	Agree	Disagree	Neutral
Contraceptives can be used several times in a month	218 (54.5)	109 (27.2)	69 (17.2)
Contraceptives can cause cancer	113 (28.2)	117 (29.2)	165 (41.2)
Contraceptive pills are inconvenient to use	135 (33.8)	179 (44.8)	81 (20.2)
Contraceptive is a woman's business	52 (13.0)	229 (57.2)	24 (6.0)
Women who use contraceptive may become promiscuous	82 (20.5)	174 (43.5)	45 (11.2)
Traditional contraceptive is the best	155 (38.8)	162 (40.5)	77 (19.2)
Contraceptive information should only be for married women	153 (38.2)	207 (51.8)	35 (8.8)
Excessive usage may lead to incorrect usage	217 (54.2)	95 (23.8)	83 (20.8)
Sales of contraceptive should be limited to health centers	314 (78.5)	55 (13.8)	27 (6.8)
I believe contraceptive should be limited to married couples only	211 (52.8)	150 (37.5)	35 (8.8)

Table 4.3b: Overall attitude of teachers towards contraceptive use

	Frequency	Percent
Positive attitude	132	33.0
Negative attitude	253	63.2
Missing	15	3.8
Total	400	100.0

4.4 Relationship between contraceptive use and socio-demographic factors

The relationship between contraceptive use (assessed using use of contraceptive in the last 12 months) and socio demographic characteristics is shown in Table 4.4. Results show that gender (p= 0.047), marital status (p= 0.037) and having children (p= 0.002) were significantly associated with contraceptive use, while age, ethnicity, income, educational qualification, years of teaching experience and arm/specialty taught were not statistically associated with treatment satisfaction.

The proportion of teachers who used contraceptive was significantly higher among males (63.4%) compared to females (52.9%) [p= 0.047]. More married respondents (60.3%) reported contraceptive use compared to respondents who were either single (45.7%) or divorced (25.0%). Respondents who had children also reported contraceptive use (65.3%) more than those who didn't have children (45.0%).

Table 4.4: Relationship between contraceptive use and socio-demographic factors

	Contraceptive use in last 12 months			
	Yes	No	X^2	P value
Sex				
Female	136 (52.9)	121 (47.1)	3.96	0.047
Male	85 (63.4)	49 (36.6)		
Age				
< 40 years	98 (55.1)	80 (44.9)	0.231	0.630
≥ 40 years	123 (57.5)	91 (42.5)		
Marital status				
Single	42 (45.7)	50 (54.3)		
Married	179 (60.3)	118 (39.7)	8.510	0.037
Divorced	1 (25.0)	3 (75.0)		
Widowed	1 (100)	0 (0.0)		
Ethnicity				
Yoruba	198 (55.2)	161 (44.8)	0.180	0.671
Others	12 (55.4)	169 (44.6)		
Income				
< 20,000	28 (48.3)	30 (51.7)	2.93	0.086
≥ 20,000	180 (60.4)	118 (39.6)		
Years of teaching experience				
< 10 yrs	93 (54.7)	77 (45.3)	0.689	0.407
≥ 10 yrs	129 (58.9)	90 (41.1)		
Religion				
Christian	192 (55.2)	156 (44.8)	1.667	0.197
Islam	30 (65.2)	16 (34.8)		
Have children				
Yes	143 (65.3)	76 (34.7)	15.640	0.002
No	36 (45.0)	44 (55.0)		
Class school taught				
JSS	66 (55.5)	53 (44.5)	0.114	0.736
SSS	157 (57.3)	117 (42.7)		
Educational qualification				
NCE /Grade II	20 (57.1)	15 (42.9)	11.217	0.600
BSc	181 (55.7)	144 (44.3)		
Postgraduate	22 (64.7)	9 (35.3)		
Specialty taught				
Arts	74 (62.2)	45 (37.8)	2.732	0.255
Commerce	36 (66.7)	58 (33.3)		
Science	70 (54.7)	58 (45.3)		

4.5: Relationship between Knowledge and pattern of contraceptive use among respondents and contraceptive use in the last 12 months

The relationship between contraceptive use and knowledge/pattern of use among respondents is shown in Table 4.4. Result shows that knowing a place to get condom ($p < 0.001$), discussing family planning with a health worker or discussing contraceptive use with spouse, having support of contraceptive use from spouse and trying to delay pregnancy were significantly associated with contraceptive use in the last 12 months.

The proportion that used contraceptive was significantly higher among those who know where to get a condom (64.0%), use a modern contraceptive (98.8%), and those who had discussed family planning with a health worker (75.9%), discussed contraceptive with your spouse (71.7%), and enjoy support of contraceptive us from their spouse (71.5%) compared to those who didn't.

Respondents who used contraceptive in the last 12 months was also significantly higher among those who had ever tried to delay pregnancy (77.9%) compared to those who hadn't.

Table 4.5: Relationship between knowledge and pattern of contraceptive use among respondents and contraceptive use in the last 12 months

	Contraceptive use in last 12 months			
	Yes	No		P value
Ever heard of contraceptives				
Yes	219 (57.0)	165 (43.0)	1.151	0.283
No	4 (40.0)	6 (60.0)		
Where did you hear of contraceptives				
Media	72 (58.5)	51 (41.5)		
Health personnel	100 (54.3)	84 (45.7)	1.667	0.644
Seminal/training	29 (64.4)	16 (35.6)		
Others	19 (57.6)	14 (42.4)		
Know of any place to get a condom?				
Yes	167 (64.0)	94 (36.0)	14.302	< 0.001*
No	13 (32.5)	27 (67.5)		
Which Contraceptive used in the last 12 months				
Traditional method	53 (89.8)	6 (10.2)	10.583	0.001*
Modern method	169 (98.8)	2 (1.2)		
Where you get your contraceptives				
Pharmacy	123 (71.7)	50 (28.9)		
Local shop	22 (91.7)	2 (8.3)	6.712	0.082
Hospital	65 (67.7)	31 (32.3)		
Others	3 (100.0)	0 (0)		
Discussed family planning with a health worker				
Yes	63 (75.9)	20 (24.1)	10.615	0.001*
No	115 (55.3)	93 (44.7)		
Discussed contraceptive with your spouse				
Yes	185 (71.7)	73 (28.3)	60.610	< 0.001*
No	36 (29.5)	86 (70.5)		
Spouse support contraceptive use				
Yes	186 (71.5)	74 (28.5)	64.387	< 0.001*
No	30 (26.8)	82 (73.2)		
Ever tried to delay pregnancy				
Yes	127 (77.9)	36 (22.1)	45.452	< 0.001*
No	49 (38.9)	77 (61.1)		

*statistically significant association

4.6: Relationship between attitude towards contraceptive use and contraceptive use in the last 12 months

Table 4.6 shows the relationship between attitude towards contraceptive use and contraceptive use in the last 12 months. Results show that respondents who had used contraceptive in the last 12 months were significantly higher among those with positive attitude towards contraceptive use (66.4%) compared to those who had negative attitude towards contraceptive use (52.6%).

Table 4.6: Relationship between attitude towards contraceptive use and contraceptive use in the last 12 months

	Used contraceptive in last 12 months			
	Yes	**No**	**X^2**	**p value**
Positive attitude	87 (66.4)	44 (33.6)	6.686	0.010*
Negative attitude	131 (52.6)	118 (47.4)		
Total	218	162		

*statistically significant association

4.7: Multivariate analysis: Binary logistic regression.

Independent variables whose association with both contraceptive use in the last 12 months were statistically significant at bivariate analysis using 5% significance level, were included into the binary logistic regression model.

Table 4.7 shows that after adjusting for other variables, none of the factors explored was significantly associated with contraceptive use in the last 12 months. however, respondents who reportedly discussed family planning with a health worker had about 2 times odds of using a contraceptive within the last 12 months compared to those who didn't (OR: 2.22; 95% CI: 0.15 – 32.06).

Table 4.7. Binary logistic regression between risk factors and contraceptive use in the last 12 months.

	OR	95% C.I. for OR		P Value
		Lower	Upper	
Average monthly income				
N20, 000 and above	0.636	0.044	9.193	0.740
Less than N20,000	1 (ref)	-	-	
Method of contraceptives used				
Non-traditional methods	0.218	0.024	2.017	0.180
Traditional method	1(ref)	-	-	
Discussed contraceptive with spouse				
Yes	0.326	0.003	35.697	0.640
No	1(ref)	-	-	
Discussed FP with a health worker				
Yes	2.223	0.154	32.060	0.557
No	1(ref)	-	-	
Does your spouse support any form of contraceptive				
Yes	0.503	0.005	53.976	0.773
No	1(ref)	-	-	
Attitude towards contraceptive use				
Positive attitude	0.870	0.071	10.665	0.913
Negative attitude	1(ref)	-	-	

Ref = Reference category

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1. Discussion

This study assessed the use of contraceptives among secondary school teachers in Ibadan north local government of Oyo state. Majority of the teachers were females (65.2%) and were also currently married (75.0%). This is consistent with previous studies among Nigerian teachers [Iyaniwura, (2004), Duru *et al.*, (2011)] although Females have been shown to be involved in the teaching profession, besides, Oyo state is largely a civil servants' state with most of the educated women employed by the state government but predominantly in the teaching profession.

Findings from this study also show that majority of the teachers in both junior and senior secondary schools were females. This is advantageous for the female students since women can better connect with other female students and help them make informed choices about their reproductive health. Furthermore, studies have shown a high prevalence of both risky sexual behavior and poor contraceptive use and unwanted pregnancies among adolescents in sub-Saharan Africa including Nigeria (Orji, 2005). Consequently, there are higher rates of unwanted pregnancies and sexually transmitted infections (STIs) among this young population (Hubacher *et al.*, 2008); for example approximately 6.8 million pregnancies have been reported to occur annually in Nigeria with majority of these pregnancies being unplanned and usually unwanted (Ameha & Nebreed, 2006). For example, a recent study conducted among teenage pregnant mothers in Ogbomosho, South-western Nigeria showed that the mean age of the teenage pregnant subjects were 16 years (Salami *et al.*, 2014)

(Egede *et al.,* 2015), but lower than findings from studies conducted among bankers in Lagos where all the participants (100%) were aware of contraceptives (Meka *et al.*,2013).

The level of awareness of contraceptive shown from this study is very encouraging because it is important for teachers to be aware and have adequate knowledge of contraceptives, since they serve as role models for their students particularly the female students who largely lacks the basic information about their reproductive health and hence constitute a significant proportion of abortion seekers in the country. In addition, young adolescents do not often feel comfortable talking to their parents about their reproductive health issues coupled with the fact that many parents are unwilling to or uncomfortable talking about sex with their wards (Wamoyi *et al.,* 2010; UNAIDS, 2000). For example, Slap *et al.,* (2003) in their study implicated "a lower sense of connectedness with parents" as an independent factor associated with sexual activity among students in Jos, Nigeria Furthermore, these parents may out rightly lack the necessary reproductive health knowledge themselves and hence compel these young adolescents to defer to their teachers or peers to provide sex education (Tarkang, 2014).

Studies have also shown that over 60% of females would have had sexual intercourse by age 18 [Olukoya & Ferguson,(2002); Adewole *et al.,* (2002)]; hence findings also showed that the most common source of knowledge of contraceptives came mostly from health personnel, compared to other sources like the media or other formal settings. Reproductive Health information has been consistently shown to be disseminated mostly through health workers both in Nigeria (Awoleke *et al.,* 2015). It is likely that these teachers would have heard about contraceptive during visits to antenatal or family planning clinics considering that majority of the teachers surveyed were married females with an average of three (3) children. Moreover, studies have shown that women attending family planning clinics generally have high level of

knowledge of benefits of family planning (Moronkola, *et al.,* 2006). This suggests that these clinics provide adequate information on contraceptives to women who visit such clinics. Although this is higher than findings from studies conducted elsewhere in the country mostly northern states but similar to studies conducted in south western states (Adewole *et al.,* (2002). A plausible explanation for this discrepancy in level of awareness may not be unconnected to the religious affiliation of participants, since our study participants were predominantly Christians, as opposed to studies conducted in northern Nigeria where majority of the teachers practiced Islam.

Finding from this study also revealed that while 67.0% reported ever using any form of contraceptive, only 55.8% reported using a contraceptive in the last 12 months. This is lower than the reported 71.4% of contraceptive use reported among bankers in Lagos, South West, Nigeria (Meka *et al.,*2013) but way higher than a prevalence rate of 25% reported among literate women from south eastern Nigeria (Onwuzurike & Uzochukwu, 2001; Ikechebelu *et al.,* 2005) as well as nationally representative survey (NDHS, 2013). A plausible reason for the low rate of contraceptive use among teachers in Ibadan may not be unconnected to the fact that most teachers sampled may be menopausal since majority of the teachers were females with more than half aged 40 years and above. Olaolorun & Hindin (2014) has opined that as women, approach menopause, they often experience irregular periods for many years before their periods finally cease.

Furthermore, it is a general belief that this group of women also have sexual intercourse infrequently, and so are thought of not being at risk of pregnancy. Studies have consistently shown that women in south western Nigeria have better prevalence rates of contraceptive use compared to other parts of the country. Some authors have suggested that the low prevalence of

contraceptive use in Nigeria may be a consequence of cultural, religious and educational factors [Adewole *et al.*, (2002); Monjok *et al.*, (2010)]. Although one can argue that educational literacy plays a major role in determining the use of contraceptives, further evidence however suggests that prevalence rates are still lower among literate south eastern women (Meka *et al.*, 2013). This therefore suggests that such variance may be deeply entrenched within cultural and religious beliefs as opposed to educational status. For example, some authors have reported that religion plays a major role in discouraging dissemination of information on FP use particularly in regions where there are predominantly Catholic Christians (Lanre, 2011). Although, there has been no consensus regarding the use of contraceptives among the Muslims conservative (Dawud, 2008), sensitivities of sex-related issues in Muslim dominated countries have however been shown to create various types of barriers to sexual and reproductive health information, support and practices (Wong, 2012). For instance some authors found that religion played a major role in acceptance of modern contraceptives in northern Nigeria where Muslims were most dominant (Adewole *et al.*, 2002). This is agreeable to the fact reported by a United Nation Population Fund survey (UNFPA, 2010) that the Northern part of Nigeria had lower contraceptive prevalence rate compared to the South. The studies by Adewole *et al.*, (2002) reported that the level of acceptability of contraceptives was lowest in northern states of Kano and Adamawa states compared to other states in the south.

Also, Islamic leaders have openly campaigned against the use of condoms and other birth control methods in Muslim dominated areas (Dawud, 2008). It may therefore follow that the low contraceptive use observed in this study can be attributed to participants' religious practices since majority of them were practised Christianity. Out of the teachers who reported contraceptive use in the last 12 months, majority of them (74.3%) used a modern contraceptive

method. Studies have shown that modern contraceptive methods was better accepted and used by women with higher educational status. For example, a recent trend analysis of modern contraceptive use among women in Uganda reported an increased odd of modern contraceptive use among women with primary and post-primary education and those in urban areas (Andi *et al.*, 2014).

WHO has reported that modern contraceptive utilization has increased globally by 3% in recent times (WHO, 2012). This may be due to the wide acceptance of modern contraceptives over traditional contraceptives due to the ineffectiveness of the later traditional method to prevent unwanted pregnancy. Furthermore, recent findings suggests that women tend to seek long lasting family planning methods which only modern contraceptives such as intrauterine devices, Injectable and implants can provide (Andi *et al.*, 2014); this may also not be unconnected to the wide prevalence of working class women where they have to join hands with their male counteracts to provide for the home. Moreover, the old system of housewives that once pre-dominated the African home management system is fast eroding giving way to a new society where women also engage in careers which may be very demanding. In addition, there has been massive promotion of modern contraceptives especially condoms by reproductive health organisations as well as the government within the last decade which may further explain wide use of modern contraceptives among women. Some studies have shown that exposure to media including radio, television, and print media significantly influenced reproductive health behaviour as well as use of modern contraceptives [Westoff and Bankole (1997); Westoff, Koffman, and Moreau (2011)]. Besides, most teachers may also have received reproductive health education as part of their formal training. The major source of condoms was from the pharmacy. This is consistent with other findings from Nigeria where both male and female

condoms were mostly procured from patent medicine dealers (PMD) and pharmacy shops (Onwujekwe *et al.*, 2013) as well as other parts of Africa. Most of the modern contraceptives either those requiring specialist operation or those requiring only a few instructions have been reported to be sourced from health care providers [Kerins *et al.*, (2004); Singh *et al.*, (2003)].

Demographic factors that was significantly associated with contraceptive use in the last 12 months included gender; marital status and having children. The higher proportion of male compared to female teachers who used contraceptive in the last 12 months is comparable to a recent study conducted among bankers in Nigeria (Meka *et al.*, 2013).The observation of a greater contraceptive use among married respondents compared to other group of respondents may also be explained by the fact that majority of the respondents were trying to delay pregnancy. Besides, findings from this study revealed that one of the major reasons for using contraceptives was for child delay. Other factors significantly associated with contraceptive among the teachers included knowing of a place to get condom, discussing family planning with a health worker or with spouse, and having support of contraceptive use from spouse knowledge of a place to obtain contraception has been shown to be associated with contraceptive among the Nigerian population.

This assertion is in agreement with findings from this study. Although the dynamics of such knowledge such as distance to such sites was not explored in this study, a previous study however suggested that consumers were knowledgeable enough to patronise hospitals for the higher tech contraceptives (IUDs, Injectibles and Implant), whilst they visited informal private health providers and drug retailers for condoms and OCP (Onwujekwe *et al.*, 2013).

Findings from this study also showed that discussing contraceptive use with one's spouse as well receiving support to use contraceptives influenced the use of contraceptives among the teachers; this is consistent with several studies exploring the role of spouses in the determination of contraceptive use among couples in developing countries. For example, several authors have demonstrated that women who discuss about family planning issues with their spouses and have their partner's approval on family planning are more likely to use a modern method of contraception [Sharan & Valente (2002); Gebreselassie & Mishra (2007)]. Studies have also shown that high regard is usually given to men (husband) in determining major family decisions including the number and when to have children. Similar observations have also been demonstrated among several studies conducted in Nigeria. For instance, a study conducted among women attending a family clinic in Ibadan revealed that a substantial number of respondents considered their husbands' approval as strong determinant of their contraceptive use (Moronkola *et al.*, 2006).

Overall, more than half of the teachers had negative attitude towards contraceptive use. This is similar with findings among most women and men had indicated negative attitude towards using family planning methods in rural Malawi (Chipeta *et al.*, 2010), although most studies from Nigeria have reported a positive attitude towards contraceptive use More than half of the respondents disagreed that contraceptive was a woman's business. This is at variance with reports from a qualitative study where only a few women reported that family planning was a woman's concern, although, majority of the other women in the same study asserted that the choice and use of any contraceptive method depended mostly on husband's approval (Chipeta *et al.*, 2010). In sub-Saharan Africa including most parts of Nigeria, decision-making regarding family planning is largely dominated by male decisions (Ezeh, 2001) and where joint decisions

are taken, it is based on spousal communication. Lewis *et al.*, (2012) has suggested that partners' attitudes and support behaviours are among the many variables shaping women's initiation and continued use of contraception. Besides, the Federal Ministry of Women Affairs & Social Development (2006) has posited that Nigeria is largely a patriarchal society where men continue to dominate all spheres of women's lives, a cultural norm fiercely protected within traditional institutions. For example a husband who wants more children may disapprove the use of contraceptives by the wife. Mutombo & Bakibinga (2014) in a recent study opined that when couples communicate effectively they are more likely to jointly agree on what type of contraceptive method, how many children to have and the space between their offspring. Issues regarding family planning including male participation in choice use and choice of contraceptives are deeply rooted in cultural undertone. Some authors have also pointed out that cultural factors and inadequate knowledge amongst others have a negative influence on male participation in sexual and reproductive health (Kura & Vince, 2013).

Majority of our study participants also agreed that the sale of contraceptive should be limited to health centres. This is probably because the health facilities have been perceived as a safe place for obtaining reproductive health services including contraceptives.

The result of this study may not be generalized in Ibadan metropolis because the study was carried out in only one local government area out of eleven local governments' area in Ibadan metropolis.

5.2. Conclusion

In conclusion, the study showed that the percentage of secondary school teachers who reported contraceptive use in the last 12 months was lower than expected given the prominent role they play in educating adolescents.

In addition, results showed that the knowledge of contraceptive among teachers was impressive with more than 90% of the teachers having adequate knowledge. Moreover, majority of the respondents (97.2%) heard of contraceptive from a health personnel.

Majority of teachers used modem contraceptive methods in the last 12 months and the main purpose of contraceptive use was for child spacing, followed by preventing pregnancy.

Socio demographic factors such as gender, marital status and having children were significantly associated with contraceptive use among teachers in Ibadan north local government area of Oyo State.

5.3. Recommendations

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

1) Reproductive health education should be intensified as part of teacher's training as this will play a vital role in encouraging contraceptive use
2) Update trainings in reproductive health especially contraceptive use should be encouraged for teachers; this will help improve the usage of contraceptives among teachers.
3) Reproductive health should be built into the curriculum of secondary schools, this might go a long way in reducing problems of unwanted pregnancies and sexually transmitted disease in the country

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OYO STATE: THE PACESETTER

MINISTRY OF HEALTH

DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION

PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No. .....

All communications should be addressed to the Honorable Commissioner quoting

Our Ref. No. AD 13/ 479/903

July, 2015

The Principal Investigator,
Department of Epidemiology & Medical Statistics,
Faculty of Public Health,
College of medicine,
Ibadan.

Attention: Emmanuel Chinyere

ETHICAL APPROVAL FOR THE IMPLEMENTATION OF YOUR RESEARCH PROPOSAL IN OYO STATE

This is to acknowledge that your Research Proposal titled: "Prevalence, Knowledge and Pattern of Contraceptive use among Teachers in Ibadan North Local Government Area of Oyo State." has been reviewed by the Oyo state Review Ethical Committees.

2. The committee has noted your compliance. In the light of this, I am pleased to convey to you the full approval by the committee for the implementation of the Research Proposal in Oyo State, Nigeria.

3. Please note that the National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations, in line with this, the Committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of findings as this will help in policy making in the health sector.

4. Wishing you all the best.

OYO STATE RESEARCH ETHICAL REVIEW COMMITTEE
Signature & Date

Sola Akande (Dr)
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethical Review Committee

APPENDIX 2

PREVALENCE, KNOWLEDGE AND PATTERN OF CONTRACEPTIVE USE AMONG TEACHERS IN IBADAN NORTH LOCAL GOVERNMENT

Dear Respondent,

I am EMMANUEL C.JOY a post graduate student majoring in epidemiology in the Faculty of Public Health, College of Medicine, University of Ibadan and presently on a research titled: "**PREVALENCE, KNOWLEDGE AND PATTERN OF CONTRACEPTIVE USE AMONG TEACHERS IN IBADAN NORTH LOCAL GOVERNMENT**". This research is purely for academic purpose. The findings will be of immense benefit in the area of determining the prevalence, knowledge, attitude and practices of contraception among teachers. Please note that you are not required to write your name on the questionnaire. Kindly feel free to express your opinion and be rest assured that your response will be kept strictly confidential. Your honest and sincere response to the following questions will be highly appreciated.

Thanks for your co-operation

EMMANUEL C. JOY

SERIAL NUMBER___

INSTRUCTIONS: PLEASE TICK (√) OR FILL IN ANSWERS WHERE APPROPRIATE

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

1. Age of Respondent (last birthday) .....years
2. Sex (1) Male ☐ (2) Female ☐
3. Marital status (1) Single ☐ (2.) Married ☐ (3) Divorced ☐ (4.) Widowed ☐ (5.) Separated ☐ (6.) Co-habiting ☐
4. Religion 1. Christianity ☐ 2. Islam ☐ 3. Traditional ☐ 4. Others (specify).....
5. Ethnicity 1. Yoruba ☐ 2. Hausa ☐ 3. Igbo ☐ 4. Others Specify.....
6. Do you have any children? (1). Yes ☐ (2) No ☐
7. How many children do you have (1). 1 ☐ (2) 2 ☐ (3). 3 ☐ (4) 4 ☐ (5) more than 4 ☐
8. How old is your (youngest) child? .....
9. Highest level of education 1. Grade I I ☐ 2. NCE ☐ 3. B.Sc ☐ 4.Post graduate ☐ 5. Others, specify.....

What is your average Monthly income/salary.....

SECTION B: TEACHING HISTORY

10. Which arm of school do you teaches (1). Junior secondary ☐ (2). Senior Secondary ☐
11. How many years of teaching experience do you have? _____
12. Approximately, how many pupils/student do you teach on a daily basis_____
13. What area of specialty do you teach? (1). Science ☐ (2). Arts ☐ (3). Commercial ☐
14. Do you enjoy your teaching job? 1. Yes ☐ 2. No ☐
15. If "No". Why? _____

SECTION C: KNOWLEDGE ABOUT CONTRACEPTIVES

16. Have you ever heard of contraceptives? 1. Yes ☐ 2. No ☐
17. If yes where did you get the information about contraceptive methods? (1) Doctors ☐ (2) Nurses ☐ (3) NGO ☐ (4) TV ☐ (5) Radio ☐ (6) Newspaper ☐ (7) Friends/Relatives ☐ (8) Seminar/Training ☐ (9)Colleagues ☐ (10) Bill boards ☐
18. Which of the methods of contraceptives do you know? (You can tick more than one).

	Yes	No	Don't Know
a) Combined pills			
b) Male/Female sterilization			
c) Male Condoms			
d) Female condom			
e) Intrauterine device (IUD)			
f) Injectables			
g) Implants			
h) Lactational Amenorrhea Method (LAM			
i) Withdrawal			
j) Emergency Contraception.			
k) Diaphragm			
l) Foam or Jelly			

19. Have you heard of any other ways or methods that women or men can use to avoid pregnancy? (1). No ☐ (2). Yes ☐ (Specify).....

20. Do you know of a place where a person can get male/female condoms? (1). Yes ☐ (2). No ☐

SECTION D: PRACTICE OF CONTRACEPTION

21. Have you ever used any contraceptive method? (1). Yes ☐ (2). No ☐
22. If yes which of the following methods have you used (you can tick more than one) (1). Condoms ☐ (2). Combined pills ☐ (3). Injections ☐ (4). IUD ☐ (5). Withdrawal ☐ (6). Abstinence ☐ 7.Others, specify.....
23. Have you used any contraceptive method within the last 12 months? (1). Yes ☐ (2). No ☐
24. If 'yes', which method? (1). Condoms ☐ (2). Combined pills ☐ (3). Injections ☐ (4). IUD ☐ (5). Withdrawal ☐ (6). Abstinence ☐ (7).Others, specify.....
25. Where do you usually get the contraceptives? (1). Hospital ☐ (2). Pharmacy ☐ (3). Shop ☐ (4).Distributor ☐ (5). Others (specify) .....
26. Where would be the most convenient place you can get contraceptives? (1). Hospital ☐ (2). Reproductive/Child clinic ☐ (3).Pharmacy ☐ (4). Community-based distributor ☐ (5). Others (specify) .....
27. What is/are the reason(s) for using contraceptive methods? (1). Child spacing ☐ (2). No need for more child ☐ (3). Delay due to employment ☐ (4). Delay due to Study ☐ (5). Others (specify) .....
28. In the last few months, have you discussed family planning with a health worker or health professional? (1). Yes ☐ (2). No ☐
29. Do you discuss contraceptive methods with your spouse? (1). Yes ☐ (2). No ☐
30. Does your spouse support the use of any contraceptive methods? (1). Yes ☐ (2). No ☐
31. Have you ever used anything or tried in any way to delay or avoid getting pregnant? (1). Yes ☐ (2). No ☐
32. I do not use any contraceptive because (1). My Spouse does not approve ☐ (2). It is against my religious teaching ☐ (3). I am Afraid of Side effect ☐ (4). I don't know where to assess them ☐ (5). Opposition from family members ☐ (6). Non availability ☐ (7). It is against Cultural norms ☐ (8). Others .....

33. Do you think there are any advantages with using contraceptives? (1). Yes ☐ (2). No ☐

34. If 'yes', what are the advantages with use of contraceptive Methods?

.....

SECTION E: ATTITUDE OF TEACHERS TOWARDS CONTRACEPTIVES

Instruction: For each statement, please indicate by ticking (√) whether you strongly Agree (**SA**), Agree (**A**), Not Sure (**NS**), Disagree (**D**), or Strongly Disagree (**SD**)

S/N	Statement	(SA)	(A)	(NS)	(D)	(SD)
35.	Contraceptive can be used several times in a month					
36.	The use of contraceptive pills can cause cancer					
37.	Contraceptive pills are inconvenient to use					
38.	Contraception is a woman's business and a man should not have to worry about it.					
39.	Women who use contraception may become promiscuous.					
40.	Traditional contraceptive methods (safe period, withdrawal) are the best					
41.	Contraceptive information should only be for married women					
42.	Expanded access to contraceptives would lead to excessive use which may increase likelihood of incorrect use					
43.	The sales of contraceptives should be limited to health centers to ensure that patients receive the correct information on dosage					
44.	I believe contraceptive use should be restricted to married couples only					

THANK YOU.