



Attitude and usage of Contraceptives among Married Couples in Northern Nigeria: A Review

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

In Nigeria, particularly in Northern Nigeria, low contraception use is one of the most important predictors of high fertility. Traditional methods such as periodic abstinence and coitus interruptus are recommended over modern contraceptives, which include hormonal and non-hormonal options, because they are more effective and have lower failure rates. High rates of unplanned pregnancies, abortions, maternal illness, and mortality are all associated with low contraceptive use. Contrary to popular belief, modern contraception is an important part of maternal, infant, and child health care. The idea of contraception, modern and traditional methods of contraception, couples' attitudes about contraceptive usage, and variables that limit contraceptive use are all discussed in the report. The internet, academic publications, conference papers, and textbooks were used to gather secondary data. Women's attitudes regarding contraception were influenced by myths and misconceptions, opposition from their spouses, religion, traditional beliefs, and habits, according to the study.

Keywords: *Contraceptives; attitude; traditional; modern; Northern Nigeria.*

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1. INTRODUCTION

Contraception is defined as the use of various devices, sexual behaviors, chemicals, medications, or surgical procedures to prevent pregnancy. As a result, any device or action that prevents a woman from becoming pregnant can be classified as a contraceptive. Effective contraception, in any societal setting, allows a couple to have a physical connection without fear of an unplanned pregnancy and gives them the flexibility to have children when they want. The goal is to do it in the most comfortable and private way possible while keeping costs and negative effects to a minimum. Some barrier measures, such as male and female condoms, also offer protection against sexually transmitted diseases (STDs).

“Recent reports on the global contraceptive prevalence rates indicate overall gains across countries. Despite the overall gains, indicators of slow progress in contraceptive uptake and the reduction in the inability of people in need and ready for contraceptive use but cannot access it are evident in some sub-Saharan African countries” [1]. In sub-Saharan African countries, contraceptive usage and unmet contraceptive needs illustrate the humanitarian actors' serious overlook. The evidence available from the National Demographic and Health Survey in these settings suggests low prevalence rates of contraceptive use ranging from 13 percent in 2013 to 17 percent in 2018 [2].

Worldwide, contraceptive prevalence among women married or in-union women aged 15 to 49 years increased from 55% in 1990 to 64% in 2015. However, wide variations in contraceptive use exist across countries, with developing countries lagging significantly in this regard. Current estimates indicate that 214 million women in developing countries who wish to avoid pregnancy are currently not using a modern contraceptive method. Women with an unmet need for modern contraception account for 84% of unintended (mistimed or unwanted) pregnancies in developing countries. The non-use of modern contraceptives is highest in sub-Saharan Africa (SSA), with the region accounting for 21% of the global burden of unmet need for modern contraception. This is worrisome as 25% of unwanted pregnancies end with abortions, and 3 out of 4 abortions occurring in SSA are unsafe [3].

According to a World Health Organization report, one of the main causes of high fertility in Nigeria

is low use of modern contraception [1]. Modern contraceptives, which include hormonal and non-hormonal methods, are preferred above the traditional methods like periodic abstinence and coitus interrupts because they are more efficacious and are associated with lower failure rates. The correlates of low contraceptive use include high rates of unwanted pregnancies, abortions, maternal morbidity, and mortality. The utilization of modern contraceptives is an essential component of maternal, newborn, and child health services [4].

Despite the many supplies and demand-side interventions to increase contraceptive uptake, the modern contraceptive prevalence rate (mCPR) has remained very low in Nigeria. Nigeria's mCPR is one of the lowest globally, currently estimated at 9.8%. In comparison, the mCPRs of other sub-Saharan African countries, such as Rwanda and Malawi, are much higher (45% and 62%, respectively). The health and socioeconomic benefits of contraceptive use have been well-documented. These benefits include improved quality of life, increased well-being of families and communities, improved maternal and newborn health outcomes, reduced poverty, increased female education, and additional non-contraceptive health benefits of hormonal methods [5]. The use of modern contraceptive methods translates into the prevention of unwanted pregnancy and subsequent abortions. Unfortunately, contraceptive use is still low in North-Eastern Nigeria, where about 83.4% of women currently married or in union not using any form of contraceptive [6].

In Nigeria, the non-use of contraceptives has included fear of side effects, partner objection, and religious conflicts, with the fear of side effects fueled mainly by misinformation. The effects of contraceptives on women's health are becoming more evident. The side effects of the use of hormonal contraceptives are enormous, such as rashes, loss of libido, discoloration of the skin (melasma/chloasma), changes in weight or appetite, nausea, vomiting, migraines, mood changes (including depression), aggravation of varicose veins, gastrointestinal symptoms (pain, cramps, bloating), spotting, vaginitis (yeast infection), vitamin deficiencies, water retention, vision impairment, liver malfunction. Furthermore, numerous studies show increased risk of cancer and increased risk of blood clots resulting from hormonal contraceptives [5, 7, 8].

The North-Eastern states have one of the lowest contraceptive use where about 83.4% of women currently married or in union not using any form of contraceptive [6].

2. DEFINING CONTRACEPTIVES

Contraceptives are devices, drugs, or methods for preventing pregnancy, either by preventing the fertilization of the female egg by the male sperm or by preventing implantation of the fertilized egg [9]. Contraception stands as the morally most acceptable form of fertility control that possibly attracts minor criticism compared to that which depends on the destruction of embryos (Mason et al. 2013) cited in [10]. Contraception can be defined as a procedure or device which prevents fertilization of the egg or the implantation of the fertilized egg [11]. It can also be defined as family planning or advanced technology invented to overcome biology so that it controls fertility. [10]. Contraceptives can also be defined as Substances or devices that are capable of preventing pregnancy. Some examples are male and female condoms, injectable, oral pills, and intrauterine devices (IUD)[12].

Any deliberate practice undertaken to reduce conception risk is considered contraception [13]. Hennink [14] similarly defines contraceptive use as "the deliberate employment of a technique or device to prevent conception." Contraceptive use has been described as the most important proximate determinant of fertility [15]. The proximate determinants of fertility are the biological and behavioral factors through which social, economic, and environmental variables affect fertility. Contraception is defined as the practice of methods intended to prevent or space future pregnancy [16].

2.1 Traditional and Modern Contraceptives

Contraception methods can be broadly divided into traditional and modern methods [17]. According to Nigeria's National Demographic Health Survey (NDHS) [18], modern contraceptive methods include female sterilisation, male sterilisation, the pill, intrauterine device (IUD), injectables, implants, male condom, female condom, diaphragm, foam/jelly, lactation amenorrhoea method (LAM), and emergency contraceptives. Methods such as rhythm (periodic abstinence) and withdrawal are grouped as traditional methods, along with herbal and other interventions[18].

2.1.1 Traditional methods of contraceptives

2.1.1.1 Coitus interruptus or withdrawal

Involves withdrawal of the penis from the vagina just before ejaculation, thus preventing semen from entering the woman. This is perhaps the oldest contraceptive method known to men, but it depends on the cooperation of the male partner. This is not a reliable method and may fail if semen escapes before ejaculation or is left on external sex organs. Man needs good self-control, both emotionally and physically, for this method to succeed.

2.1.1.2 Lactational amenorrhoea method

Nursing women secrete hormones that prevent conception for about six months. It prevails if there are no menses and full breastfeeding day and night are maintained. This is more a myth as breastfeeding is irregular; 60% of women start menstruating by the third month. Not reliable in instances where baby sleeps through the night or in case of sore, cracked, or inverted nipples and breast abscess. Many unsuspecting women conceive during this period before the return of menstruation.

2.1.1.3 Rhythm method

This method requires predicting ovulation, the period when the woman is most fertile, by recording the menstrual pattern, or body temperature, or changes in cervical mucus, or a combination of these (symptom-thermal method). Intercourse is avoided on fertile days. Although many people claim knowledge of this method, only a tiny proportion can identify the fertile period of the month. It cannot be used by women who have irregular periods, or after childbirth, or during menopausal years. Intercourse is limited to some days of the month only. The method requires careful record-keeping for calculating the safe period.

2.1.2 Modern methods of contraceptives

2.1.2.1 Male condom

In this, a thin rubber or latex sheath (condom) is rolled on the erect penis before intercourse. It prevents semen (sperms) from entering the woman. The method is 95% effective if used correctly. It can be used by all age groups safely. No prior medical examination is required and is readily available without a prescription. It serves

as the most effective method in providing twin protection against contraception and STI disease. The major drawback in this method is related to compliance, inconsistency, and incorrect use

2.1.2.2 Female condom

This is a vaginal pouch made of latex sheath, with one ring at each end. The closed-end ring is inserted inside the vagina and works as the internal anchor. The outer portion covers and protects the external genitalia. It is reliable, hypo-allergic with high acceptance in test groups, although its cost could be a major deterrent to use. It is a female-controlled method and protects from both unwanted pregnancy and STDs. The size and hardness of the inner ring may be uncomfortable to some users. Extensive promotion and persuasion among female users are required to make it popular.

2.1.2.3 Oral contraceptive pills

The combined pill consists of two hormones: estrogen and progesterone. This is to be taken orally every day by the woman. The pill works by preventing the release of the egg, thickening cervical mucus, and altering tubal motility. It is to be prescribed after a medical check-up. Almost 100% effective if taken regularly. It is an easy and convenient, woman-controlled method and does not interfere with love-making. There is a regular monthly cycle higher in younger, less educated women. Adolescents are less likely to take pills correctly and consistently.

2.1.2.4 Injectables

These inhibit ovulation and also increase the viscosity of the cervical secretions to form a barrier to sperms. It is a 99% effective, easily administered method, suitable during lactation too. It has non-contraceptive advantages, like the recession of ovarian cysts or breast lumps. Menstrual cycle may become irregular, spotting or cease altogether as long as the injectable are used. There may be a gain in weight, and a return to fertility may take time. Subsequent injections should not be delayed more than two weeks from the prescribed date. Counseling and support are needed for women when this method is chosen.

2.1.2.5 Emergency contraceptive pill

Here, two doses of the pill, separated by 12 h, are taken within three days (72 h) of unprotected

intercourse. Depending on menstruation, it can prevent ovulation, fertilization, or implantation of the fertilized egg. It is available without a prescription. Its uses include prevention of pregnancy after condom tear/slips, when two oral pills are missed in succession when an intrauterine device is expelled, and there is fear of conception, in case injectables are delayed by more than two weeks.

2.1.2.6 Intrauterine devices (IUDs)

A small flexible, plastic device, usually with copper, is inserted into the womb by a qualified medical practitioner after menstruation, abortion, or 4-6 weeks after delivery. It prevents the fertilized egg from settling in the womb.

Copper ions have spermicidal activity. It is 95–98% effective, does not interfere with love-making, and can be removed when pregnancy is desired. It may cause heavy bleeding in some women. Pelvic inflammation in women, especially those exposed to STDs, may occur. Sometimes the IUD loosens and detaches and hence should be checked periodically. It may increase the risk of ectopic pregnancy. It is unsuitable for women with cervical or pelvic infection, uterine fibroids, heavy menstruation, or unexplained vaginal bleeding.

2.1.2.7 Female sterilization (Tubectomy)

This is a permanent surgical method in which the fallopian tubes are cut and ends tied to prevent the sperms from meeting the eggs. It is a very reliable method requiring only often with reduced pain and bleeding. It can be discontinued when pregnancy is desired. The pills must be taken regularly and do not work when consumed later than 12 h. The pills are unsuitable for women over 35 years or those with a family history of heart, liver diseases, hypertension, diabetes, or unexplained vaginal bleeding. Failure rates are one day of hospitalization and can be performed anytime, preferably after the last child's birth. Rarely, the tubes may join, and fertility may return. A few women tend to have heavier periods after this method. Though this is a permanent method, the operation can be reversed, though the results may not always be successful. Hence the couple should be firm about their decision before opting for this method.

2.1.2.8 Male sterilization (vasectomy)

A permanent surgical method in which the vasa deferentia, which carry the sperms from the

testes to the penis, are blocked. This prevents the sperms from being released into the semen at the time of ejaculation. It is a reliable and straightforward method not requiring hospitalization. Contrary to popular belief, it does not affect health or sexual vigour, neither does it interfere with intercourse.

2.2 The Attitudes of Couples towards Contraceptive Use

Modern contraceptive use has been widely acknowledged to be one of the most cost-effective strategies for promoting reproductive health and fostering socioeconomic development globally. Beyond preventing unintended pregnancies and reducing the risk of unsafe abortions and maternal mortality, fertility regulation enabled by modern contraceptive use also contributes significantly to increasing women's access to education and empowerment opportunities. To promote reproductive rights and gender equality, the need to improve the uptake of modern contraceptive methods has been consistently reiterated in the last few decades.

In Nigeria, the high annual population growth rate has been a significant cause of concern for population experts and policymakers. The Multiple Indicator Cluster Survey [19] revealed that the contraceptive prevalence rate is 13.4 %. Also, NDHS [20] revealed that overall, only 12% of married women use a modern method of family planning and an additional 5% use a traditional method while only about 37% of sexually active, unmarried women are using contraceptive with 28% using a modern method, most commonly the male condom and 9% using traditional methods. Implementation of family planning interventions and contraceptive use varies among countries. However, countries with stable socio-political infrastructure may be better suited to implement the interventions and achieve the goals than their counterparts. Contraceptive use remained under-utilized in developing countries, including Nigeria, even where the services are made available. The low uptake of contraceptives is likely to expose women to unplanned pregnancies, inadequate child spacing, and increased risks associated with closed-spaced pregnancies and childbirth. The low uptake of contraceptives is likely to expose women to unplanned pregnancies, inadequate child spacing, and increased risks associated with closed-spaced pregnancies and childbirth. Studies have revealed that children in poorly spaced births are more prone to

malnutrition, diseases, and higher chances of death than well-spaced children [21, 22].

Studies have shown that attitude towards contraceptives is an essential determinant of the use and non-use of contraceptives. Positive attitudes are associated with greater use of contraceptives, while negative attitudes are associated with lesser contraceptive use [23-28]. Furthermore, the attitudes towards contraception are shaped differently among males and females. Ryan et al. [25] suggest that increasing contraceptive knowledge among men helps them form positive attitudes towards contraceptives. On the other hand, women form positive attitudes towards contraceptives by acquiring more knowledge of actual reproductive health and body function.

In contrast, a [29] study by Wu among teenagers in China suggests that an increase in contraceptive and reproductive health knowledge does not necessarily translate into positive attitudes, as an increase in knowledge could also lead to the formation of negative attitudes due to the awareness of contraceptive side effects. A similar study conducted by Mnyanda in 2013 in a South African province also reflects Wu's finding. In Mnyanda's study, people who know contraception consider it harmful because of their awareness of contraceptive side effects and their perception of the condom as reducing sexual pleasure. As such, they would instead go for an abortion which they feel is a better method of preventing the effects of unwanted pregnancy [28].

Studies among students in tertiary institutions in southwestern Nigeria have revealed that people develop negative attitudes towards contraceptives for several reasons. These include insufficient information, fear of side effects, the experience of contraceptive failure, the perceived tedious routine involved with methods such as the oral pill, and societal disapproval of contraception among young and unmarried youths [23, 26]. Related studies in this region by Omo-Aghoja et al, [30] and Abiodun and Balogun, [17] reveal that the majority of their respondents (53.1% and 77.5% respectively) would not use contraceptives because of its perceived side effects, including health risks, on the individual.

These studies also reveal that students generally hold more positive attitudes towards condoms, reporting it as the most favourable method of

contraception. This could be due to its dual function in terms of pregnancy prevention and protection from STIs, as well as its being less intrusive on the reproductive system of the individual compared to other modern contraceptive methods [17, 22, 31]. However, some couples reported having a negative attitude towards condoms, stating that condoms often fail by either breaking or slipping out as well as reducing sexual pleasure during sex; as such, they would prefer other methods such as injectables and implants because of their perceived long-lasting effects and efficiency [32, 33, 34]. The attitudes of couples towards contraceptives influence the individual's behaviour as to whether or not he/she uses contraceptives [24].

2.3 Factors limiting Contraceptive Use in Nigeria

2.3.1 Contraceptive accessibility

Accessibility is partly contextualized in terms of the proximity and convenience of contraceptive services to students, cost, and methods available to students and the attitudes of health care providers towards students seeking contraceptives. No single contraceptive method has been found to satisfy all needs. Each method has its shortcomings, for instance, that it is irreversible, has unpleasant side-effects, is expensive, or conflicts with religious doctrines or social norms. However, each method is likely to work for certain groups of people; therefore, providing a variety of methods to a given population is likely to benefit more people.

2.3.2 Traditional beliefs and practices

Most ethnic groups in Nigeria loathe barrenness which is expressed by the honour given to women with many children. Children, especially in rural communities, are regarded as the pride of womanhood and economically beneficial for the family and community. People in such communities usually accord higher levels of respect for women having many children, while women who have no children are sometimes treated with disdain and given the status of an 'incomplete woman'¹⁰ [24]. Among the Igbos in eastern Nigeria, as reported by Duze and Mohammed, women with ten or more children are celebrated during a ceremony called the "Ewu-Ukwu," which gives them a distinction and high esteem accompanied with special privileges. A 2009 study by Abiodun and Balogun

found that due to the special recognition given to mothers and the stigma attached to women without children, women may sometimes not use certain contraceptives because of the fear of infertility resulting from continuous contraceptive use.

2.3.3 Religion

The impact of religion on contraceptive use is mixed. One perspective is that people with the same socioeconomic and demographic characteristics should have similar fertility limitations and practices irrespective of religious affiliation. In contrast, others emphasize the independent effect of religion on contraceptive use (Heaton 2011) cited in. Generally, studies have demonstrated lower contraceptive use and higher fertility among Muslims compared with Christians (Heaton 2011). Studies in Nigeria have also demonstrated lower use of contraceptives among Muslims [1].

2.3.4 Myths and misconceptions

Misconceptions about Birth spacing play a crucial role in the lack of usage of various methods. Many studies have shown that fear of side effects on women's health is general concern amongst the people, leading to reduced birth spacing methods.¹⁵ In a study, many women repeatedly stated that modern family planning would cause congenital disabilities, fertility, and adverse health effect. The influence of such myths and misconceptions make it difficult and time-consuming for providers (health workers) to counsel for spacing, thereby leading to an increase in limiting methods .

2.3.5 Modern contraceptives are perceived as risky

Most participants perceived there to be a significant risk to using modern contraceptive methods. Some women want to use the methods but are scared of the excessive bleeding that usually accompanies the methods .

2.3.6 Opposition to contraceptive use by the woman, her husband, or others

Women in Nigeria face opposition to contraceptive use from their husbands and their families. In the northern Nigeria setting, this presents a significant barrier to modern contraceptive use. Men are the decision-makers in the family, and women often cannot obtain

health services without their husbands' explicit approval. This custom is deeply ingrained in local culture. In the community, women who use contraception are considered promiscuous, and their husbands are perceived as weak.

3. CONCLUSION AND RECOMMENDATIONS

- i. Improvement in family planning and contraceptive services to all northern states, primarily rural areas, will help make its adoption more appealing. The inclusion of men as targets of family planning campaigns will significantly influence its acceptance and usage.
- ii. Health care providers should adequately explicate the side effects of contraceptives to enable women to make proper decisions that would help them and their families.
- iii. There should be enlightenment and awareness of contraceptive use benefits where religious leaders, community leaders, and relevant authorities will be involved.
- iv. There is a need to design education programs addressed to the men to benefit from family planning and the need for their involvement and allow their wives to use contraceptives.
- v. Since knowledge of any specific method is a prerequisite for its use, there is a need for an adequate campaign, primarily through the mass media on contraceptives and to allay the populace's fears about contraception's harmful effects.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Ejembi CL, Dahiru T, Aliyu A. Contextual Factors Influencing Modern Contraceptive Use In Nigeria. Dhs Work. Pap. Full name should be written. 2015;120(September):44.
2. Temmerman PM. Patterns Of Contraceptive Use Among Vulnerable Populations In Kenya Rhoun Adhiambo Ochako Vulnerable Populations In Kenya Phd Supervisors; 2018.
3. C. Wang C, Cao H. Persisting Regional Disparities In Modern Contraceptive Use And Unmet Need For Contraception Among Nigerian Women. Biomed Res. Int. Full name should be written. 2019;2019: pp...?
4. Adedini SA, Babalola S, Ibeawuchi C, Omotoso O, Akiode A, Odeku M. Role of Religious Leaders In Promoting Contraceptive Use In Nigeria: Evidence From The Nigerian Urban Reproductive Health Initiative. Glob. Heal. Sci. Pract Full name should be written. 2018;6(3): 500–514.
5. National Bureau Of Statistics (Nbs) And United Nations Children's Fund (Unicef). Multiple Indicator Cluster Survey Nigeria 2016-17, Survey Findings Report.1–538, 2018.
6. Durowade KA, et al., Barriers to contraceptive uptake among women of reproductive age in a semi-urban community of Ekiti State, Southwest Nigeria. Ethiop. J. Health Sci. 2017;27(2):121–128,. This should be checked.
7. Omokhodion FO, Uchendu OC. Perception And practice of child labour among parents of school-aged children in ibadan, southwest Nigeria. Child. Care. Health Dev. 2010;36(3):304–308, This should be checked.
8. Suntai D, Oberiri AD. Perception of married women aged 18-45 on the practice of family planning in ardo kola local government area Of Taraba state of Nigeria. 2016;54:289–299. This should be checked.
9. Idoko CA, Omotowo B, Anyaka C, Udo K, Ezenwosu O, Nwobi E, Ezeoke U, Obi I, Ekwueme O, Okeke C, Obienu C, Orakwue I. Opinion and use of contraceptives among medical students of the University of Nigeria, Enugu campus. African health sciences, 2018;18(3), 637–644. Available:<https://doi.org/10.4314/ahs.v18i3.21>
10. Sila S, Ruslan A, SSS, Moein HA, Student D, Lecturer S. Legal protection for nurses in providing. 2019;83(11):140–149. This should be checked.
11. R. (Smeaton) V Sectaray Of State For Health;2002.
12. Hubacher D, Trussell J. A definition of modern contraceptive methods. Contraception. 2015;92(5):420–421. This should be checked.
13. Mturi AJ. Pattern of feertility and contraceptive use in Tanzania. Unpublished PhD thesis, University of

- Southampton, UK; 1996.
14. Hennink, Monique. Barriers to family planning service use among the Urban Poor in Pakistan. *Asia-Pacific Population Journal*. 1996;19. DOI: 10.18356/e54a6ab6-en.
 15. Bongaarts J, Mauldin WP, Phillips JF (1996). The demographic Impact of family planning *21(6): 299-310*.
 16. Muhammad AI, Bhola K. Challenges and prospects of contraceptives use among women attending family planning services In Yobe State, Nigeria. *World Sci. News*. 2019;122:122–132. This should be checked.
 17. Abiodun OM, Balogun OR. Sexual Activity and Contraceptive Use among Young Female Students of Tertiary Educational Institutions in Ilorin, Nigeria. *Contraception*. 2019;79:146 – 149.
 18. National Population Commission (Npc) [Nigeria] and Icf. "Nigeria Demographic And Health Survey 2018. Abuja, Nigeria, And Rockville, Maryland, Usa: Npc And Icf. 2019;1–748:2018.
 19. Sanchez-Paez DA, Ortega J. Adolescent contraceptive use and its effects on fertility. *Demographic Research*. 2018;38(45):1359 – 1388
 20. Monjok E, Smesny A, Ekabua JE, Essien EJ. Contraceptive Practices in Nigeria: Literature Review and Recommendation for Future Policy Decision. *Open Access Journal of contraception*. 2010;1:9-22.
 21. Salako SG, Adekoyeni OO, Adegbite AA, Hammed TB. Determination of metals content of alcohol and non-alcoholic canned drinks consumed at Idiroko Border Town Ogun State Nigeria. *Br. J. Appl. Sci. Technol*. 2016;12:1–8.
 22. Duze MC, Mahammed IZ. Male knowledge, attitude and family planning practices in northern nigeria. *African Journal of Reproductive Health*. 2006;10(3):12 – 19.
 23. Ugoji FN. Attitude of undergraduates towards contraceptive use. *Pakistan Journal of Social Sciences*. 2008;5(1):111 – 115.
 24. Mnyanda P. Attitudes, Understanding and Perceptions of Teenagers about the Use of Contraceptives (Buffalo City Municipality – Eastern Cape). An Assignment Submitted to the University of Stellenbosch in Fulfilment of a Degree in Philosophy in HIV/AIDS Management; 2013.
 25. Omo-Aghoja Lawrence, Omo-Aghoja V, Okonofua Friday, Aghedo Osarhieme, Umueri C. Otayohwo R, Feyi-Waboso Paul Esume, Celestine. Perceptions and attitudes of a rural community to abortion in the Niger-delta region of Nigeria. *Nigerian Journal of Clinical Practice*. 2009;12443-9.
 26. Olley Benjamin. Child sexual abuse as a risk factor for sexual risk behaviours among socially disadvantaged adolescents in Ibadan, Nigeria. *Vulnerable Children and Youth Studies*. 2008;3:243-248. DOI: 10.1080/17450120802385737.
 27. Akanni Akinyemi, Adedini, Sunday Hounton, Sennen Akinlo, Ambrose Adedeji, Olanike Adonri, Osarenti Friedman, Howard Shiferaw, Solomon Maïga, Abdoulaye Amouzou, Agbessi J D Barros, Aluisio. Contraceptive use and distribution of high-risk births in Nigeria: A sub-national analysis. *Global Health Action*. 2015;8. DOI: 10.3402/gha.v8.29745.
 28. Cadmus EO, Owoaje ET. Knowledge about complications and practice of abortion among female undergraduates in the university of ibadan, Nigeria. *Ann Ib Postgrad Med*. 2011;9(1):19-23. DOI: 10.4314/aipm.v9i1.72430. PMID: 25161483; PMCID: PMC4111035.
 29. Abdulraheem IS, Fawole O. Young People's Sexual Risk Behaviours in Nigeria. *Journa; of Adolescent Research*. 2009;24(4):505 – 527.
 30. Zaggi HY. Contraceptive knowledge and practices among students in federal polytechnic Kaduna , Nigeria: An Exploratory Study. *J. Adolesc. Heal*. 2014;19(4):258–266. This should be checked.
 31. Knowledge M, Mohammed IZ. Knowledge, attitudes , practices and family Nigeria Planning In; 2014. This should be checked.
 32. Heaton TB. Does religion influences fertility in developing countries. *Population Research and Policy Review*. 2011;30(3):449 - 465
 33. Health P. Assessment of factors influencing the choice and use of temporary contraceptive methods for birth spacing among married women in rural trivandrum dr parvathy mini pradeep achutha menon centre for health science studies sree chitra tirunal institute for Me No;2014.

34. Sinai E. Omoluabi, Jimoh A, Jurczynska K. nigeria: culture, myths and perceptions. Unmet need for family planning and barriers to contraceptive use in kaduna, Cult. Heal. Sex. 2019;1–16.

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