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UNDERSTANDING THE PERCEPTION OF CONTRACEPTION IN NIGERIA, A TOOL FOR POLICY MANAGEMENT IN VIEW OF SDG 3.7

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ABSTRACT

The review paper "Understanding the Perception of Contraception in Nigeria, a Tool for Policy Management in View of SDG 3.7" examines the awareness, usage, and sociocultural factors influencing contraceptive methods in Nigeria. It classifies contraceptives into three categories: traditional, modern, and surgical, examining various techniques such as withdrawal, birth control pills, injectable contraceptives, and IUDs. The study emphasises factors affecting contraceptive perceptions, including religious beliefs, cultural norms, and education levels, which often mould individuals' comprehension and acceptance of contraceptive practices. Crucial findings revealed that misunderstandings, healthcare provider prejudice, and restricted access to accurate information impede effective contraceptive use. Religious and cultural beliefs significantly affect healthcare providers' attitudes, further restricting access for unmarried people and teenagers. Moreover, the research highlights the impact of informal sources, like friends and media, in disseminating unreliable information, thus amplifying misconceptions. By addressing these issues, the study stresses the importance of targeted policies and educational initiatives to enhance understanding and acceptance of contraception, in line with Sustainable Development Goal 3.7, which aims to improve reproductive health and family planning.

KEYWORDS: *Contraception, Perception, Sociocultural Influences, Provider Bias, Polcy Management.*

INTRODUCTION

Contraceptive use is a fundamental aspect of public health, with significant implications for managing population growth, reducing maternal and infant mortality, and enhancing family health and well-being. Effective family planning through contraception also contributes to economic growth by empowering individuals, particularly women, to make informed decisions regarding their reproductive health. However, despite global initiatives aimed at improving access to contraceptives, notably the Sustainable Development Goal (SDG) 3.7, which aims to ensure universal access to sexual and reproductive healthcare services by 2030 Nigeria continues to face substantial challenges in achieving widespread contraceptive use. In 2020, the contraceptive prevalence rate in Nigeria was recorded at 17.5% (UN, 2020), underscoring the necessity for targeted efforts to overcome the barriers limiting contraceptive uptake. Nigeria, as Africa's most populous nation, presents distinct challenges in ensuring that contraceptives are both accessible and accepted across its diverse regions. This vast country comprises a wide array of cultural, religious, and educational backgrounds, each influencing contraceptive practices and perceptions in nuanced ways. For instance, sociocultural and religious factors play a particularly significant role in shaping attitudes toward family planning, often acting as barriers that discourage or even stigmatise contraceptive use. Educational disparities further complicate the issue; while some regions have made progress in health education, others, particularly rural areas, still grapple with limited awareness and pervasive misconceptions about contraceptives. Numerous studies have highlighted the range of contraceptive methods available in Nigeria,

which can be broadly categorised into three groups: traditional, modern, and surgical methods. Traditional methods, such as withdrawal and the rhythm method, remain prevalent, especially in rural areas where cultural norms are strongly upheld and access to healthcare facilities may be limited. These methods, while accessible, are generally less reliable than modern options. Modern contraceptives including condoms, oral contraceptives, injectables, and intrauterine devices (IUDs) are more commonly utilised in urban areas but remain subject to widespread myths and misconceptions, often hindering their acceptance and proper use (Alo et al., 2020). Surgical methods, such as tubal ligation and vasectomy, while available, are rarely employed and sometimes misunderstood as permanent or culturally inappropriate options. This systematic review aims to comprehensively analyse the current landscape of contraceptive perceptions in Nigeria, examining the socio-demographic factors that shape these attitudes and the pivotal role healthcare providers play in shaping contraceptive knowledge. Additionally, it explores the implications of these perceptions for policy management in Nigeria's pursuit of SDG 3.7, assessing how policy can be adapted to overcome these barriers. By addressing these factors and identifying opportunities for targeted public health interventions, this review contributes to a deeper understanding of the multifaceted challenges and opportunities within Nigeria's family planning landscape.

Urban regions typically exhibit higher contraceptive use rates due to superior healthcare infrastructure and more frequent public health campaigns, while rural areas often encounter logistical challenges, limited health facilities, and reduced availability of modern contraceptives. Socioeconomic factors further exacerbate these disparities; lower-income populations may prioritise daily survival needs over family planning, and affordability can be a significant barrier to contraceptive access (Ejembi et al., 2015). In numerous Nigerian communities, particularly in rural and traditional settings, decision-making regarding contraception is often male-dominated, with women frequently requiring spousal consent. This gender dynamic can restrict women's agency in managing their reproductive health, as family planning may be perceived as outside their direct control. Initiatives to empower women through education, economic independence, and community support networks are crucial to enhancing their ability to make informed contraceptive choices. Nigeria's cultural and religious diversity plays a significant role in shaping beliefs about family planning. In certain regions, contraceptive use may be perceived as culturally inappropriate or contrary to religious beliefs that value large families. Specific religious groups, for instance, may oppose modern contraceptives due to concerns about their perceived interference with natural processes (Yillah et al., 2024). Tailored outreach and culturally sensitive education programmes are necessary to bridge these gaps and establish trust within these communities. While healthcare providers are pivotal in delivering family planning services, Nigeria's healthcare system faces challenges such as resource constraints, inadequate training, and high patient-to-provider ratios. These limitations can affect the quality and consistency of contraceptive counselling, often leaving providers without the time or resources to address misconceptions or respond to queries effectively. Regular, culturally competent training programmes for healthcare providers can enhance their ability to deliver unbiased, factual information on contraception (Sheahan et al., 2022).

MATERIALS AND METHODS

This mixed-method systematic review integrated both qualitative and quantitative data. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were adhered to in order to ensure comprehensive coverage of the subject matter. A comprehensive search of peer-reviewed articles was conducted in PubMed, Scopus, CINAHL, and Google Scholar databases utilising the following keywords: "contraception," "Nigeria," "perceptions," "cultural beliefs," "SDG 3.7," "family planning," and "healthcare providers." Articles were selected if they addressed perceptions of contraception in Nigeria, focused on sociocultural influences, and included qualitative or quantitative data. Studies older than 10 years or those conducted outside Nigeria were excluded. Thirty articles met the eligibility criteria. Data Extraction and Analysis Data from the selected studies were extracted using a standardised form that included study location, sample size, methods employed (qualitative, quantitative, or mixed), key findings, and conclusions. Quantitative data were analysed using statistical methods to determine trends in contraceptive use, whereas qualitative data were analysed using thematic analysis to identify recurring themes related to perceptions of contraception. This review adopts a convergent synthesis design in which qualitative and quantitative data are analysed separately and subsequently integrated during the interpretation phase. The integration of these findings provides a comprehensive understanding of how cultural, religious, and educational factors influence contraceptive use in Nigeria.

RESULTS

Traditional Methods

Coitus Interruptus or Withdrawal

This includes removing the penis from the vaginal canal immediately before ejaculation and preventing the entry of sperms into the woman. This is possibly the oldest contraceptive method known to humans (Jain and Sumathi, 2011). However, this shaky procedure can fail if semen escapes before ejaculation or remains on the exterior sex organs (Jain and Sumathi, 2011). For this strategy to work, men must have good emotional and physical self-control.

Lactational Amenorrhoea Method

For about six months, nursing mothers secrete hormones that hinder pregnancy (Chao, 1987). If this occurs, there

are no menstrual periods and full breast-feeding is maintained throughout this duration.And as such there is no cases of conception during this period.

Rhythm Method

This method includes documenting the menstrual cycle, body temperature, changes in cervical mucus, or a combination of these factors to predict ovulation. On fertile days, intercourse is avoided to prevent pregnancy. Despite the fact that many people claim to be aware of this procedure, only a small percentage can correctly determine the month's fertile phase (Jain and Sumathi, 2011). It is not recommended for women who have irregular periods, have just given birth, or are approaching menopause. Intercourse is permitted only on certain days of the month. To calculate the safe duration, the procedure necessitates meticulous record keeping.

Modern Methods

Male Condom

In this method, a thin rubber or latex sheath (condom) is rolled onto the erect penis before intercourse. It prevents semen (sperm) from entering the woman. The method was 95% effective if correctly used. It can be safely used by all age groups. No prior medical examination is required and it is easily available without a prescription. It serves as the most effective method for providing twin protection against contraception and STI disease. The major drawback of this method is related to compliance, inconsistency, and incorrect use (IIPS & ORG Macro, 1999). There are intrinsic disadvantages to this method, as it may tear or slip if not properly used. Therefore, expired or perforated condoms should not be used. The extra supply should be maintained whenever required.

Female Condom

The female condom (FC) is the only safe and effective approach initiated by women to protect against both unwanted pregnancy and sexually transmitted diseases (STIs), including HIV/AIDS (Ananga *et al.*, 2017). This is a latex sheath vaginal pouch with one ring at either end. The internal anchor is a closed-end ring, which is placed inside the vagina. The external genitalia were covered and protected by the outer portion. To make it popular, it will need a lot of promotion and persuasion from female users (Jain and Sumathi, 2011).

Oral Contraceptive Pills

There are three types of oral contraceptive pills currently available: combined oestrogen-progesterone, progesterone alone, and continuous or extended use. In the United States, birth control pills are the most widely recommended method of contraception. About a quarter of women between the ages of 15 and 44 years who use contraception say that they prefer the pill (Cooper and Mahdy, 2001). The combination hormonal pill containing oestrogen and progesterone is the most commonly prescribed prescription. Younger, less-educated women have a higher failure rate. Adolescents are less likely to take their medications appropriately and regularly (Jain and Sumathi, 2011).

Injectables

Injectable contraceptives have seen increasing patronage over the years, and are currently the preferred method of contraception in most parts of the world(Laryea *et al*. 2016). These inhibit ovulation and increase the viscosity of cervical secretions to form a barrier to sperm. It is 99% effective, easily administered, and suitable for lactation (Jain and Sumathi, 2011). Because some women forget or delay an injection or pill, the typical-use failure rates for injectable and oral contraceptives are 7% and 9%, respectively (Kosh *et al*, 2008).

Emergency Contraceptive Pill

Emergency contraceptives, also referred to as the "morning–after" pill, are helpful in avoiding unintended pregnancies. The term "morning after" is misleading; emergency contraception should be started sooner than the morning after, that is, just after unprotected sexual activity (Celia *et al.*, 2018). Effectiveness of emergency contraception may be lower than estimation given thus; the Yuzpe combination hormonal regimen is assessed to be 75% effective while levonorgestrel alone to be 85% effective.(Trussel *et al.*, 2003).

Surgical Methods

Intrauterine Devices (IUDs)

There are two types of IUDs: copper-containing IUD and levonorgestrel-containing IUD. It is 95–98% effective, does not interfere with love-making, and can be removed when pregnancy is desired(Jain and Sumathi, 2011). There are also indicators that IUD should be removed. The major reason for removal was the patient's wish. Others could include, but are not limited to, desire for pregnancy, irregular bleeding pattern, severe vaginal bleeding, and discomfort or pain, which could indicate device displacement(Strasser *et al.*, 2017).

Female Sterilization (Tubectomy)

Tubectomy, commonly known as tubal sterilisation, is a long-term contraceptive procedure for women. It is a surgical procedure that prevents the egg produced by the ovary from reaching the uterus by blocking the fallopian tubes. It is a highly safe treatment that only requires one day of hospitalisation and may be performed at any time, ideally after the delivery of the previous child. (Jain and Sumathi, 2011).

Male Sterilization (Vasectomy)

Vasectomy is a simple, safe, and cost-efficient technique of long-term male contraception that is used all over the world. Short- and long-term hazards include haematoma development, infection, sterilisation failure, sperm granulomas, short-term postoperative discomfort (nodal, scrotal, and ejaculation pain), and chronic pain syndrome as a surgical procedure (Yang *et al.*, 2020).

Factors Affecting the Perceptions about Contraception in Nigeria

Contraceptives provide various health merits to families such as preventing unintended pregnancies, maintaining good birth spacing, and reducing risks of maternal deaths. It is also critical in the role of demographic transition in a community (Solanke, 2017). There are varying perceptions about contraception, most of which stem from misconceptions and social influences such as religion and cultural beliefs. Some sects of people are opposed to the whole concept of contraception, while others are biased towards specific methods. Healthcare providers are not immune to bias, and they may exhibit this towards certain methods, thereby resulting in provider bias (Sierveding *et al.*, 2018).

The level of education of a population influences their potential use or rejection of contraceptives. An unlearned person will have no other option but to believe and internalise the misconceptions passed down by older generations and even biased health professionals. It has been discovered that people with low levels of education or who live in rural areas are less likely to adopt the use of contraceptives (Alo *et al.*, 2020). This ignorance poses a serious barrier to the adoption of contraceptives in such a family. Even amongst educated people, the amount and level of accuracy of information one has about the various types of contraceptive methods will be visible through their perceptions and, hence, their decisions. One who is well-versed with the different methods and possible side effects will make informed decisions, and this health-seeking behaviour is seen more often in educated people (Alo *et al.*, 2020). In addition, an educated woman is more likely to trade off a quantity of children for quality. She would rather have fewer children whom she can cater well for with available resources than risk having many children who may have to manage through lives. This priority will then drive her to seek contraception after having the desired number of children.

Religion can determine a person's opinion of contraception. However, within the same sect, different people may choose to be influenced differently, while some might completely ignore the beliefs (Srikanthan & Reid, 2008). When people harbour moral or religious objections to contraception, it is often based on an inaccurate clinical understanding of the concept. It has been discovered that some physicians and pharmacists may refuse to prescribe or dispense an emergency contraceptive because of the misguided belief that it is the same as an abortion pill. This has dire consequences when it affects the public's access to this option, especially in rural areas (Will, 2014).

Catholics believe that the only reason for sexual intercourse should be procreation, so one should expect conception when one has sex. They are against unnatural methods of contraception and consider them sinful; however, they uphold abstinence and withdrawal methods as methods for family planning. The Orthodox Church considers abstinence as the only way to avoid conception, especially outside marriage. For married couples, contraception is accepted to allow for family planning, but not to entirely avoid having children. In marriage, only methods that do not destroy the product of conception are allowed. Permanent methods of contraception, such as vasectomy and tubal litigation, are prohibited except in cases of a medical condition. In the Protestant community, the use of contraception is allowed within a marriage to curb family size. Abortion is condemned on all fronts in conservative Protestantism; however, some people make exceptions when the mother's life is threatened. Liberal protestants believe a woman should decide what to do with her body, especially in the case of an unwanted pregnancy. In Islam, abortion and emergency contraception are prohibited, but in recent times, allowances have been made for both. Familial pressure can influence the desire to keep procreating as well as other factors like environment, gender, number of children, education status of the woman, etc. The derogatory way in which women are regarded has a strong influence on their decision to use contraceptives, but this depends largely on their environment because Islamic law considers both men and women as equals (Srikanthan & Reid, 2008).

Although the choice to use contraception is mostly decided by a couple, it has been observed that the choice of methods is driven by different factors for men and women due to the different perceptions they hold. The choice of contraceptive method for a woman is determined primarily by its ability to prevent pregnancy and secondarily by its ability to protect from STDs. For men, the ability of contraceptives to prevent STDs and pregnancy is equally important (Grady *et al.*, 1999). Another study showed that a woman's choice of contraceptive method depended on whether it did not have side effects, caused a desired effect on menstruation, and could prevent future pregnancies. On the other hand, men cared about how their partner accepted it and if it affected their partners' menstruation (Huber-Krum and Noris, 2020). It has been observed that men are more open to non-invasive methods of contraception, that is, the use of condoms. Very few men are open to the permanent contraceptive method, that is, vasectomy, whereas women are receptive to this method for themselves.

Age influences the perception of contraception in the sense that older women are more knowledgeable and make better decisions concerning their health. According to Semachew Kasa *et al.* (2018), women older than 30 years are more likely to use contraceptives. This is because age increases mothers' awareness, and the older a woman, the more chances she has sex. The use of contraceptives among adolescents is not common due to the guilt that accompanies early involvement in sex, as well as the inability to discuss freely with an older person about their experiences (Essiben, 2018).

Cultural beliefs greatly influence the use of contraception, especially in Africa. For instance, the belief that male children are of more value than females or one that encourages them to have as many children as possible in a bid to extend lineage. In a polygamous family, wives are usually seen competing with the number of children they have. These people see children as a potential source of wealth; they believe that the more children they have, the higher their chances of becoming rich.

Another cultural belief is that the traditional methods are more effective. Such methods include drinking of herbs, tying of herbs, or umbilical cord around the waist; some women are made to sit in herbal concoctions for a long while. Traditional birth attendants are considered more knowledgeable about these matters, not necessarily because they have been trained but because they have lived for a long time. It is apparent that these existing cultural practices thwart the efforts of family planning programs (Kabagenyi *et al*, 2016).

All these points point to the fact that a healthcare practitioner has a lot to consider when counselling patients on contraceptive methods. Adequate education and awareness must be provided to ensure that people make informed decisions based on accurate information. If people do not clearly comprehend clinical realities, they may not be able to appropriately determine their true stance and opinions on issues that raise moral questions or contradict the myths they have believed about contraception (Will, 2014).

Perception of Nigerians about Contraception and Gaining Information on Contraception

There are varying perceptions on the different types of contraceptive methods.

Perceptions on the use of Condoms: According to the National Populations Commission Nigeria, 74% of men and 58% of women in Nigeria have been shown to possess knowledge of the benefits of condom use in the prevention of sexually transmitted diseases and pregnancy. Despite these numbers, there is still a large variation in how Nigerians, especially young adults, look at its use. There is a notion that condoms (barriers to contraception) can break. Some think this could be due to "fake products" in the market, and this is why some products are preferred to others. Some also think that the consequence of this "breaking" weighs heavily on the female partner in the sense that the male partner is assumed to use protection and the unintended pregnancy which ensued is not from him, which can cause a loss of confidence and strain in the relationship as a whole. Buying an original condom is believed to curb this. It is also assumed that partners (especially females) do not enjoy sexual activity with condoms (Schwandt et al., 2015). The use of condoms has also been associated with promiscuity and has been attributed to poor social construct (Anyawu and Fulton, 2015)

Perceptions on the use of Oral Contraceptives: Oral contraceptives are the most widely used hormonal contraceptives and the most popular non-surgical method of contraception. Currently, they are used by more than 100 million women worldwide (Abasiattai et al., 2011).

Some people think that taking oral contraceptive pills can cause infertility on the long run and in addition to this, forgetting to take the pills can cause pregnancy instantly (Schwandt et al, 2015). Others think oral contraceptives cause dangerous side effects and most often than not, the side effects aren't mentioned but some say it destroys the uterus and they would rather avoid taking such. Some people have mentioned that the pills "sediment" in the stomach and causes the stomach to swell, pointing the weight gain effect associated with its use (Schwandt et al).

Perceptions on the use of Injectable Contraceptives: A study conducted in several locations in Nigeria showed that injectable contraceptives are the second most popular method of contraception after the male condom. It is generally perceived to be a safe and effective method to improve quality of life by avoiding the need to carry out an abortion (Eremutha and Gabriel, 2019). It is also perceived that the effect of injectable contraceptives is immediate, and the burden of remembering to take it is removed. In addition, it is perceived that one can stop taking it and decide to try another method without any risks or issues, while some have attributed this method to failure based on personal experiences (Schwandt et al., 2015).

Perceptions on the use of Intrauterine Device (IUD): IUD use is very common among women aged > 35 years, most of whom have had four children and are married (Ayogu and Omonua, 2019). In general, it is acceptable and considered safe. However, some perceive the process of placing the device as risky, considering the location to be inserted. There is also a fear of device shifting during sexual intercourse (Schwandt et al. 2015).

Perceptions on the use of Sterilization: This is seen as a permanent and irreversible method of contraception, and this is not generally accepted. It is seen as "half castration" (Schwandt et al). This method does not sit well with religious and cultural beliefs. Only 0.1% of women aged 14–44 years use female sterilisation as a contraceptive method, and the acceptance rate is low (Akpor et al., 2016).

From these views, it is evident that there is great misinformation about the borders of contraception. As of 2008, only 5.6% of women had spoken with a health professional about family planning according to the National Population Commission of Nigeria and ICF Macro Demographic and Health Survey. Nigeria remains in infancy, with a low contraceptive prevalence rate of 11% (Akpor et al., 2016).This shows that more programs need to be organised to inform the public about sex and

contraception. There is a need for proper communication between partners to understand what works best for them.

Sources and quality of contraception information. Most used sources, their merits, and demerits

It may be interesting to note that research and statistics suggest that an average Nigerian woman has a fertility rate of at least five children. This led to the prediction of a 44% increase in the 2015 Nigerian population by 2030, except that some measures are taken to stop the numbers (Alo *et al.*, 2020). Family planning experts, counsellors, and care providers have been said to have a direct influence on the level of choice and usage of contraceptives (Schwandt, Speizer, and Corroon, 2017), as the lack of awareness or presence of inadequate and/or false information contributes to contraception failure rates (Afolabi *et al.*, 2015).

Ladipo (2005) cited a survey in his article to satisfy the curiosity of how Nigerians obtained contraceptives and contraception information. In the cited study, 2001 Nigerians were sampled from four regions of the country (northwest, northeast, southwest, and southeast). The highlighted sources of information were friends, pharmacists, and hospitals. Specifically, catholics preferred private institutions.

In their research carried out in South-West, Nigeria, Afolabi *et al.* (2015) recorded health facilities as the most consulted source of contraception information, recording 53.3% prominence amongst 660 married women.

According to the Federal Ministry of Health in 2014, contraception information was mainly obtained from the private sector rather than from the public sector. Oye-Adeniran *et al* (2005) posited that the lack of access to authentic information on the methods and use of contraceptives leads to misuse of the method, which, in turn,would contribute to an increase in recorded failure and distrust on the part of the users.

In their survey, Alo *et al.* (2020) obtained data on the use of contraceptives from both married and unmarried women with varying demographics. Amongst the factors analysed, the source of information obtained by the involved sample had a significant influence on their perception and use of contraceptives. Compared with the study carried out by Afolabi *et al.* (2015), the latter recorded that marital status, stage of reproduction age, religion, and source of information had the greatest impact on the use of contraception by women amongst other demographic factors. From their results, they recorded that some women sought contraception advice from healthcare professionals. They also observed that positive comments on the subject matter from the community and religious heads did not have a highly significant effect on the contraceptive decisions of the people they led.

A cross-sectional study conducted in the South-West region in 2015 by Afolabi *et al.* to evaluate the use of contraceptive measures and source of information obtained by women highlighted condoms as the commonest means of contraception.

The popular use of male condoms was also suggested to be affected by frequent visibility via advertisements via mass media, making unawareness nearly impossible (Afolabi *et al.*, 2015).

From the referenced studies, the sources of information can be summarised as friends, parents, husbands, mass media, religious leaders, doctors, pharmacists, and neighbours.

Public sector: As much as the public health institutions are part of the best places to receive credible information on contraception (Oye-Adeniran *et al.*, 2005), young people who wish to seek such refrain from these institutions as they avoid judgemental verbal and non-verbal communication from the health workers which could stem from cultural beliefs of the workers. It was suggested that catholics may avoid the same institutions for the purpose of avoiding documentation (Ladipo, 2005).

The Federal Ministry of Health (FMOH), on the other hand, highlights a decrease in staff strength and, hence, a constraint in rendering optimum services toward the subject matter (2014). The ministry affirms that even the available staff do not have adequate training and exposure for rendering this particular health service. Hence, the issue of a lack of qualified personnel is paramount.

This raises the question of the availability of credible contraception information in this sector. In addition, material resources have been reported as insufficient, which also poses a threat to optimum healthcare services.

Friends, neighbours, parents, husbands: These informal sources of contraception information were recorded by Oye-Adeniran *et al.* (2005) to have a high frequency. This is a rather disturbing observation, as the credibility of the information is questionable. Bankole and Onasote (2016), in their survey, also recorded the very first source of contraception information in secondary school students as the elements of this category. Hence, this source can be said to account for contraception misuse and/or failure (Oye-Adeniran *et al.*, 2005). The personal preference of husbands is reflected more in their inputs, and their lack of acceptance also accounts for some of the limitations faced in contraception (Alo *et al.*, 2020).

This category also promotes the spread of misconceptions and false theories. However, there is no known effective measure to stop the consultation of informal sources, as it is the cheapest and most

convenient. In addition, the information may come unsolicited and hence, unavoidable and unfortunately, can hardly be regulated.

Pharmacies: The majority of sexually active individuals, both old and young, have pharmacies as their first call for contraceptives (Ladipo, 2005). In his comment, Ladipo specifically mentioned this preference in catholics and young people due to the freedom they enjoy in obtaining contraceptive products without documentation. While a pharmacist is capable of giving credible information or referral, the short contact time between the pharmacist and client during the purchase of products prevents the former from giving pertinent information, except in cases where such client seeks such information.

The availability of contraceptive products (particularly male condoms), in terms of number and cost, has had great influence on the increased use of such measures, hence contributing largely to the rate of contraception (Afolabi *et al.*, 2015).

It has also been noticed that more work is required to increase contraception knowledge in healthcare providers based on the results of the survey carried out by Dehlendorf *et al.* (2010).

Private health institutions: The biases of certain private clinics may contribute to a lower frequency of use of some contraceptive methods due to a basement of such methods (Oye-Adeniran *et al.*, 2005). However, a survey report by USAID (2019) recorded the private sector as the highest call point for contraception information. It was recorded to be highly patronised by the unmarried, youth, and the poor. This suggests that the private sector is a place to achieve relatively better confidentiality, comfort, and economic benefits.

Dehlendorf *et al* (2010) observed that a significant number of healthcare providers do not have sufficient information on contraception. However, they recorded that younger personnel had a higher level of knowledge. This highlights the challenge of the private sector's impact on family planning decisions in Nigeria.

Mass media: The print, television, social, and radio media have helped to increase awareness of the barrier contraceptive method, contributing to its popularity (Afolabi *et al.*, 2015). Bajoga, Atagame, and Okigbo (2015) observed in their survey that the highest exposure to media for urban women was through their phones. The incidence of mixed information passing across this platform makes it highly unreliable as a source. However, it can be maximised, if used properly, to gain access to credible online sources such as websites and health applications. Scripts for ads are written by the same health professionals. Hence, information assessment must be viewed from the top of the distribution chain.

Effect of religion & culture of health providers on contraception

Nigeria has a heterogeneous cultural environment. Each culture has a mix of beliefs and practices, especially as it concerns fertility and contraception. Moreover, Nigeria is a country of largely three religions with many subsets that boast various beliefs. These cultural practices and belief systems affect members of the community and can influence the service provision of health care workers regarding contraceptives. It is interesting to note that in Nigeria, health providers are regarded as the primary decision-makers in the contraceptive choices of women. This is based on the belief that health practitioners carry out specific tests to determine an individual's body type and the appropriateness of a method for the individual. In fact, the mere fact that a method is endorsed by a health practitioner is sufficient to increase its acceptability by members of the public (Schwandt *et al.*, 2016; Sanchez *et al.*, 2021). Thus, it is understandable that the attitudes of health professionals would influence the perception of the public towards contraceptive use.

Indeed, the cultural beliefs and practices of the community might influence the provision of contraceptives by health workers. It can be imagined that such culturally and socially held beliefs may not always mirror accepted scientific norms and medical practice. In fact, there is evidence of eligibility barriers set up by healthcare providers in the provision of contraceptives. These barriers are usually based on the personal biases of healthcare providers who are supposed to provide contraceptive services. Most times, providers decide which contraceptive method to offer based on their cultural or social norms or on the observation of a client's personal characteristics, such as age, parity, and marital status. These are known medical barriers (Schwandt *et al.*, 2017).

Nigeria's cultural belief system is a significant contributor to medical barriers. The cultural environment of Nigeria does not permit sexual activities between adolescents and unmarried people. The perception of healthcare workers has been shaped by these cultural beliefs of abstinence until marriage, and they may mirror the attitudes of healthcare workers in some parts of Africa. For example, in Uganda, a study showed that health workers imposed non-evidenced-based age restrictions and consent requirements. Health workers are hesitant to give contraceptives to young people (Nalwaldda et al., 2011). A study in Ghana revealed the same health worker age-based restriction on contraceptive use.

The same attitude was observed in Nigeria. A study carried out in a Nigerian City, Ibadan, captured this attitude among health workers. More than half of the respondents considered the provision of contraceptives to be a promotion of promiscuity. More than a third felt that contraceptives should not be provided to unmarried people since Nigerian culture does not permit premarital

sex. Moreover, more than half of the responders felt it was better to give advice on abstinence rather than contraceptives (Ahanonu, 2014).

The perception and use of contraceptives by health workers provides useful information regarding the factors that might contribute to provider bias. This was revealed in a study done to assess the perception and uptake of contraceptives by health workers in a southwestern Nigerian City. The study revealed that although a majority of respondents had practiced a form of contraception, a significant population was uncertain or agreed that contraceptives should be for women with completed families only. A quarter of respondents were uncertain or disagreed that contraceptive services should be offered to all sexually active women. Moreover, almost all contraceptive users were married. This considerable reservation of health workers about the provision of contraceptives to sexually active women may very well influence their attitudes towards the provision of these services to the general populace (Atinuke *et al.*, 2015).

The provision of contraceptives and contraception information is very important if the plague of maternal and childbirth mortality as well as unplanned pregnancies are to be prevented. Hence, more training is required for health providers to further remind them of the need not to allow religious and cultural sentiments to cloud their professional judgements in regards to provision of service to all who need it.

DISCUSSION

The Nigerian women's modern contraceptive use: evidence from NDHS 2018" analyzes modern contraceptive use among Nigerian women of childbearing age using data from the 2018 Nigeria Demographic and Health Survey (NDHS). Overall, the study identifies significant barriers to modern contraceptive use in Nigeria and recommends comprehensive strategies to enhance access and education in family planning, contributing to sustainable development goals. Only 12.2% of women used modern contraceptives, while 16.6% used traditional methods, indicating a significant gap in modern contraceptive adoption. The average participant age was 36, with contraceptive use influenced by age, employment, urban residency, and regional differences. Factors positively associated with modern contraceptive use included being aged 40-44, employed, living in urban areas, having higher socioeconomic status, access to health insurance, and joint decision-making in couples. The study highlights the impact of cultural norms and socioeconomic disparities on reproductive health behaviors, advocating for culturally sensitive interventions. It calls for targeted family planning policies that address demographic and socioeconomic factors, promote gender equality, and involve men in reproductive health decisions. The importance of tracking changes in contraceptive prevalence over time is emphasized for informing policy.

According to the study done by Ahanonu et al. (2014),while there is some recognition of the need for contraceptive counseling and education, many healthcare providers continue to hold conservative views that may restrict access to contraceptive methods for unmarried adolescents. This situation highlights the urgent need for further training and education to align provider attitudes with the realities of adolescent sexual health needs, ultimately enhancing access to essential reproductive health services. Their findings on healthcare providers' attitudes towards contraceptive provision for unmarried adolescents in Ibadan, Nigeria, illustrate a nuanced landscape marked by ambivalence and negative perceptions. A substantial majority (57.5%) of healthcare providers believe that offering contraceptives to unmarried adolescents promotes promiscuity. This viewpoint is influenced by cultural norms in Nigeria, where premarital sex is often stigmatized. Approximately 42.7% of providers acknowledged that their attitudes are shaped by these cultural values, indicating a significant impact of societal expectations on their professional views.

A notable portion of providers (51.7%) prefers to advise sexually active unmarried adolescents to abstain from sexual activity instead of providing them with contraceptives. This reflects a conservative stance on adolescent sexual health, favoring abstinence over practical measures to prevent unwanted pregnancies and sexually transmitted infections (STIs).

The study reveals a split in support for contraceptive services. While 41.5% of respondents endorse providing contraceptive services to both married and unmarried clients, a significant 44.2% believe that such services should not be available to unmarried adolescents. This division highlights a lack of consensus among providers regarding the appropriateness of contraceptive access for this group.

Despite the prevailing conservative attitudes, a majority (70.6%) of providers agree that adolescents should receive contraceptive counseling prior to becoming sexually active. This indicates an acknowledgment of the importance of education and support in fostering safe sexual practices, even if it does not lead to a willingness to provide contraceptives directly.Their study identifies variations in attitudes among different types of healthcare providers. Nurse-midwives, community health officers, physicians, and pharmacists generally displayed more favorable attitudes towards providing contraceptive services, whereas a significant number of social workers (80.0%) held negative views. This disparity suggests that training and professional background may play a role in shaping providers' perspectives on adolescent reproductive health.

In summary, the findings of this review elucidate the complex interplay between education, religion, culture, and healthcare services in shaping contraceptive perceptions in Nigeria. Educational attainment is a key determinant of contraceptive use, with educated women being more likely to adopt modern contraceptive methods due to enhanced access to accurate information (Alo et al., 2020). However, misconceptions regarding the side effects of oral contraceptives, IUDs, and injectables persisted, particularly among less-educated populations. Religious beliefs play a substantial role in influencing contraceptive perceptions, with Catholics and conservative Protestant groups demonstrating resistance to modern methods, particularly surgical methods such as sterilisation (Srikanthan & Reid, 2008). This indicates the necessity for culturally sensitive educational programmes that address religious concerns while promoting the benefits of family planning. Furthermore, the role of healthcare providers in promoting or hindering contraceptive use cannot be disregarded. Personal biases and misconceptions among providers have been reported as significant barriers to access, especially for unmarried women and adolescents (Ahanonu, 2014). Therefore, training programmes aimed at enhancing healthcare providers' knowledge of contraceptive methods and mitigating provider bias are essential. Finally, access to contraceptive information was unevenly distributed, with urban women having superior access to family planning resources compared to their rural counterparts. This highlights the need for public health interventions that target rural areas and provide accurate and accessible family planning information through community-based outreach programmes.

CONCLUSION

This mixed-method systematic review underscores that contraceptive use in Nigeria is influenced by a complex array of sociocultural, religious, and educational determinants, each exerting a distinct influence on individuals' decisions regarding family planning. Achieving the Sustainable Development Goal (SDG) 3.7 target of universal access to family planning necessitates concerted efforts to address widespread misconceptions and misinformation surrounding contraceptives, which frequently originate from deeply entrenched cultural and religious beliefs. Key strategies for progress should encompass comprehensive education campaigns that promote greater understanding of the health and economic benefits of family planning, particularly among young people, who are instrumental in shaping future generational norms. Furthermore, enhancing the capacity of healthcare providers to deliver non-judgmental, evidence-based counselling is essential, as provider attitudes and biases can significantly impact individuals' willingness to consider contraceptive options. Regular, standardised training for healthcare providers can reinforce this approach and help mitigate biases rooted in cultural or personal beliefs. Public health initiatives should employ a multifaceted approach by utilising mass media, social media platforms, and community outreach programmes to foster broad public awareness and normalise contraceptive use. Community-based programmes, in particular, can facilitate open dialogues on family planning, providing a supportive environment where individuals feel empowered to discuss their reproductive health choices. Future research should focus on developing and evaluating culturally and religiously tailored interventions to address specific barriers and ensure inclusivity. These interventions should be co-designed with local community leaders, religious authorities, and women's health advocates to ensure alignment with local values while promoting informed choices. Addressing these social and cultural nuances will be vital in increasing contraceptive acceptance and fostering an enabling environment for family planning, which, in turn, will contribute significantly to Nigeria's broader public health and development goals.

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