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Quality Improvement and Acceptance of Family Planning Services in Bayelsa State: Lessons Learnt From a Review of Global Family Planning Programs.

Tuebi Moses; Franco Apiyanteide; Raimi Morufu Olalekan; Chidubem Oraelosi; Sampou W. Daniel

School of Public Health, University of Port Harcourt, Rivers State, Nigeria.

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Corresponding Author
Tuebi Moses
E-mail: *tuebi_moses@uniport.edu.ng*
Phone: *07062820080*

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ABSTRACT

Background: Despite the benefits of family planning to individuals, families, communities and the society at large, family planning acceptance and utilization continue to be poor especially in most low- and middle-income countries across the globe due to quality issues, religious and cultural beliefs that negates its use and challenges in access to current family planning methods.
This review identified measures that can/may improve the quality and acceptance of family planning in Bayelsa State Nigeria.
Method: An in-depth review of literatures was conducted using key search terms in PubMed and Google scholar to obtain strategies needed to improve quality and acceptance of family planning.
Results: The review showed that several interventions will be helpful in improving quality and acceptance of family planning methods. These include: (i) The use of the Johns Hopkins quality cycle (Plan-Do-Study-Act) in identification and definition of barriers, planning and implementation of strategies based on identified barriers and continuous monitoring and evaluation of progress for necessary actions. (ii) A social and behavioral change model that specifically addresses cultural and religious norms that limits the use of family planning methods. (iii) Development and implementation of a strategic plan such as provision of qualified midwife/nurse at primary health care centers. (iv) Task shifting (v) continuous capacity building of health workers (vi) Government support of family planning and (vii) collaboration with international organization to ensure steady availability of family planning services and products. These methods if implemented in Bayelsa State, will be effective in improving quality and acceptance of family planning services by women of reproductive age in the state.
Conclusion and Recommendation: Improved quality and acceptance of family planning methods and services are central for optimum use of family planning methods which is key to promoting maternal and child health in Bayelsa State and thereby, focuses on health system strengthening interventions in the State.

Background

Family planning is an aged long practice known among the Djenne people in West Africa since 16th century.[1] The United Nations Population Fund [2] defined it as the information, means, and methods that allow individuals to decide if and when to have children and the number they desire to have.

The dividends of birth spacing are well known to the populace. To the mother, it helps her maintain a healthy and psychological state of mind needed to prepare for the next child. For the child, it reduces the incidence of neglect and malnutrition the child may suffer from. To the family, it enables them to plan the resources needed to ensure healthy living and attainment of other goals of life. To the society, family planning helps in the reduction of hunger and poverty, optimize maternal and child health and stabilize a nation.[3]

The Centre for Disease Control and Prevention [4] noted that family planning is one of the 10th greatest public health interventions of the 21th century, which is at par with vaccination. It is an intervention that is strongly recommended for populations facing explosions and scarcity of resources to take care of their population size. The United Nations Population Fund [5] opined that access to safe, voluntary family planning is a fundamental human right that is central to gender equality and women's empowerment and a key factor in reducing poverty. Despite these benefits, the estimates indicate that among 1.9 billion of women of reproductive age group (15 – 49years), 1.1 billion have a need for family planning while only 842 million are using contraceptive methods and 270 million have an unmet need for contraception. [6, 7]

Women especially those in low-and middle-income countries continues to have unmet needs of contraception due to poor access, poor quality of available services, cultural and religious norms and lack of proper education on family planning.

Quality which is the degree of excellence or distinction in the service or product provided to clients by health care providers, remains a major setback in the primary health care centers.[8] Donabedian [9] states that the possibility for health care quality to improve, depends on two factors which are the technical and interpersonal quality of health care services. The treatment aspect of client's care constitutes the technical care while the communication between the client and health worker about the treatment constitutes the interpersonal care.

Donabedian [9] further suggested three linked dimensions that can measure the quality of health care services and these are: i) **Structure** which he defined as the settings, health worker qualification and the systems of the manager where health services occur. ii) **Process** defined as the list of items or activities that is put into the health system iii) **Outcome** which refers to satisfaction received from clients or patient's survival. Donabedian's [9] model for measuring health care service quality is made up of seven dimensions. :i) Efficacy defined as care provided under optimal conditions and this forms the basis for which measurements should be made. ii) Effectiveness which is the outcome of interventions. iii) Efficiency defined as reduction in cost without compromising of effects. iv) Optimality is the ability to balance costs and benefits of health care. v) Acceptability which covers the accessibility of health care and interpersonal patient-provider interaction.vi) Legitimacy is the social acceptability of the institutions health care system considering the manner of delivery of health care and vii) Equity which is health care distribution in a fair manner to the populace.[10]

Patient waiting time is a process indicator that patients often use in judging the quality of health care they receive even more than the skills and knowledge of the health care worker. According to the institute of medicine, at least 90% of patients should be seen within 30minutes of the scheduled appointment time.[11] This is however not the case in most low- and middle-income countries where several studies indicate that patients spend 2-4 hours in the outpatient before being attended to by a physician. Long waiting time in low- and middle-income countries like Nigeria often affect the utilization of health care services as unnecessarily long waiting time could cause stress to both the patient and care provider [21] hence, affecting acceptance of the services.

Tasefe, Woldie, & Megerssa, [12] opined that good quality of care in family planning services helps individuals and couples to meet their reproductive health needs safely and effectively. They noted that quality is an essential element that defines whether a client will be retained in service or will avoid such services. At the clinical level, quality involves providing technically sound, safe, effective and efficient services that meets clients' needs and improves their wellbeing.[13] According to the United States Institute of Medicine, "Quality of health care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge".

Despite the drive for quality around the globe, most primary care centers in low-and middle-income countries are still devoid of providing health care services that meets the minimum standards. This gap is more prominent in sexual and reproductive health care services. Primary health care centers are often not adequately equipped to provide quality health services including family planning services [14] and when available, the waiting time could be discouraging.[15] Available family planning services often lack an array of methods clients could choose from which includes the lack of health education on the available methods of contraceptives that is needed to make informed decisions and address gaps that may arise from the various side effects of family planning services which is needed to retain clients.[12] In Nigeria, apart from the

issue of quality, other factors such as low literary and low socio-economic status of women and a desire for male child has contributed to the very low utilization of family planning services in the country.[16]

A USAID report [17] on family planning noted that less than one in every five married women in Nigeria, the most populous country in Africa, makes use of family planning. In addition, 16 percent of the women in this most populous country in Africa who want to delay or limit childbearing are not using contraception. Poor access to family planning makes it difficult for women of child bearing age not to have safe child spacing practices and this results in unsustainable population growth that negatively impacts on the health of women and places the children at risk of poor care with resultant malnutrition and other health conditions that increases their chances of morbidity and mortality.

In order to promote health and ensure access to quality family planning services, this paper is aimed at presenting identified measures to Improve the Quality and Acceptance of Family Planning in Bayelsa State, Nigeria.

Aim and Objectives of Review

- The aim is to provide measures that will improve the quality and acceptance of family planning in Bayelsa State.

Objectives

- To promote the provision of quality family services in Bayelsa State.
- To provide strategies that will improve the acceptance of family planning services in the state.

These are needed for optimum maternal and child health that are important for the growth and development of the state.

Bayelsa State

Bayelsa State is a southern state in Nigeria between Delta and Rivers State that was created in October 1, 1996 by Gen. Sani Abacha out of the old Rivers State. It has 8 local governments with its capital in Yenagoa. It has a total of 105 wards and a landmass of 10,773Km^2 with a projected population of 2,615,391 and women of reproductive age group (15-49 yrs.) totaling 575,386 (Adapted from WHO, 2021).

The state has primary, secondary and tertiary facilities that provides family planning services to its population. About 70% of the facilities are located in riverine areas (Adapted from Bayelsa State WHO, 2021) and prone to threats on the water ways. The maternal mortality rate for the state is 1,870 per 10,000 live births. It has a relatively high infant mortality rate, under 5 mortality rate and teenage pregnancy due to poor health infrastructure especially in the rural coastal communities.

The people are mostly farmers, fishermen/women, petty traders, private workers and civil servants. The state is endowed with natural resources such as crude oil and gas deposits and it is critical to the economy of Nigeria as a nation.

Family planning acceptance has remained low in the state with only an estimated 3% of women of reproductive age using a form of family planning method consistently despite the availability of over two hundred primary health care centers and a relatively high budget for health in the State. This brings into the question on the quality of reproductive health services provided including family planning. Hence the need for a review of global literatures on measures to improve the quality and acceptance of family planning in the State.

Definition of Family Planning

The World Health Organization [18] defined family planning as “the ability of individuals and couples to anticipate and attain the desired number of children and the spacing and timing of their births”.

Benefits of Family Planning

Family planning serves three important goals which include: the prevention of unwanted pregnancies amongst couples, reduction of the transmission of sexually transmitted diseases and reduction of the burden of infertility through the prevention of infertility secondary to complications of sexually transmitted infections and abortions conducted with crude instruments in clandestine places by unskilled personnel [19, 20].

Habumuremyi and Zenawi [22] stated that the reasons for voluntary family planning practices include the promotion of maternal and child health, human right, population and development and environmental sustainability and development. These are discussed below:

Maternal and Child Health

Seltzer [23] stated that improvement in maternal and child health is often the number one reason stated most often as the reason for family planning across the globe especially in highly dense populations that are currently facing uncontrolled growth with scare resources. Ross and Smith [24] opined that improvement in women’s health has been the dominant reason for family planning programs since 1972 and this is currently the focus in obstetric practice as grand multiparity is associated with poor maternal outcome justifying the need to ensure appropriate family planning methods for improved maternal welfare. In addition, family planning gives women the autonomy and decision-making abilities in their career and other pursuit of life which through the reduction of unwanted pregnancies, may affect their plans. Ahmed et al [25] noted that contraceptives are an effective means of primary prevention strategy against

maternal deaths in Low- and Middle-Income Countries (LMICs). It is important for countries that have the highest burden of mortality from preventable causes. Ross and Blanc [26] noted that 1.7 million fewer maternal deaths have been averted due to an improved use of contraceptive from 1990 to 2008. They estimated that improved family planning practice resulted to a reduction in fertility rates which brought about a 53% decline in maternal mortality with a 47% lower maternal mortality rates per birth during the review period. Abortion conducted by quacks in clandestine places also contribute to a major burden of maternal morbidity and mortality. This can actually be prevented by the use of appropriate family planning methods including use of condoms and emergency contraceptives among others.

Family planning has significant effects on child health. Rutstein et al. [27], from their study obtained from the Demographic Health Surveys of 52 countries showed that children born within two years of a previous birth have a 60 percent increased risk of infant death while those within two to three years have a 10 percent increased risk of infant death when compared to children delivered after an interval of three or more years from the last sibling. The burden of malnutrition is highest among children who are poorly spaced especially in low and middle income where malnutrition continues to be a burden and this account for almost 50% of childhood mortality. Children that are well spaced often benefit from exclusive breast feeding and other practices that boost their immune system for improved wellbeing. The absence of family planning or its practices can therefore adversely affect the health of maternal, newborn and child health. These analyses have revealed the benefits of program and initiatives that support and promote birth spacing for improved maternal and child health outcomes.

Population and Development

The rationale for population and development as a benefit for family planning started in the 1960s amidst concerns that the rate of rapid population growth could negatively affect economic growth and development especially in low- and middle-income countries where poor governance, leadership, poverty and means of livelihoods are not enough to ensure improve well-being of their citizens. Birdsall, et al [28] and Bongaarts et al. [29], noted that this rationale proposed to support family planning has been in and out of favor. Howbeit, Bloom, Canning, and Sevilla [30] revealed that there is a positive correlation between slower population growth and economic development. This pattern is more noticeable at least at the initial phase of the demographic transition, when countries enjoy a demographic dividend as long as other economic and human capital policies remain constant. The demographic dividend encourages countries to have an advantage of a beneficial dependency ratio between the working-age population and the dependent populations such as children and the elderly who often needs support from the working population. Good economic policies and labor regulations are important for a nation to enjoy the potential dividends of a well-planned and carefully controlled demography that is sustainable by available resources. It is important for countries in Sub-Saharan Africa region to coordinate and control the reproductive health of its citizens to encourage economic growth and development. The high population could actually be harnessed for a productive workforce. However, with insecurity in most low and middle income countries and lack of job opportunities, an uncontrolled population will spell doom for the country and this is a current challenge most low and middle income countries like Nigeria are faced with and therefore the need to scale up family planning services especially in the northern part of the country where uncontrolled population and lack of job opportunities has resulted to insurgency, banditry, kidnapping and other criminal elements in the region which has even spilled down to the southern part of the current in recent times.

Human Rights and Equity

Reproductive health including family planning is a fundamental human right that is often abuse in most low- and middle-income countries such as Nigeria. According to the United Nations [31], couples and individuals have the right to decide freely and responsibly on the number and spacing of their children. This fundamental human right on family planning is enshrined in the 1968 International Conference on Human Rights. According to Singh [32], the subsequent international population conferences held in 1974, 1984, and 1994 reaffirmed the right for individuals and couples to decide on their reproductive health. The human rights rationale on family planning states that sexual and reproductive health and rights of couples including family planning is a fundamental human right that must be acknowledged and respected by all. Hardee et al [33] opined those efforts are underway to more explicitly define a rights-based approach to implementing voluntary family planning programs.

Environmental Sustainability and Development

Climate change that has greatly affected agriculture and resulted in various disasters such as flood has gained attention and resurgence in global population dynamics. This is as a result of the various environmental issues and concerns about food security among various nations that are adversely affected by climate change. [34; 35, 36; 37]. Evidence reveals that the global population will continue to increase despite a slow growth rate in some continents. In 2012, it was the world population was estimated to be more than 7 billion. This is projected to be more than 16 billion by the end of the century if all conditions remain in the same as they are currently. The United Nations Population Fund [38] opined that the sustainability of the globe will depend on policies and plans implemented by governments across the globe to

ensure development and sustainability of its population. This includes key decisions and actions taken to ensure the impact of climate change is addressed across the globe.

Family Planning Methods

Family planning and contraception can be grouped mainly into two category – Natural and Artificial Methods. The natural methods consist of periodic abstinence, coitus interruptus, lactational amenorrhea and post coital douche. Artificial family planning methods include: Barrier methods such as male and female condoms, diaphragm, cervical cap, vaginal sponge, and spermicides, Hormonal methods like oral contraceptives, injectable and implantable long-acting progestins. In addition, the Intra Uterine Devices and sterilization (tubal ligation or vasectomy) are part of the artificial family planning methods. [39] These methods are discussed below:

Natural Family Planning Methods

This is based on the use of the body physiological changes and symptoms in the identification of the fertile and infertile phases of the menstrual cycle to make decisions on when to be involved in coitus activities that can result to conception or when to avoid coitus to avoid getting pregnant. These methods are referred to as fertility-based awareness methods. Peragallo, Polis, Jensen, Greene, Kennedy, Stanford, [40] noted that the effectiveness of the various fertility awareness methods vary and are discussed below:

Periodic Abstinence: This method involves the avoidance of coitus during the fertile period of a female. This period according to Burkman & Brezezinski [39] is the time of ovulation to 2-3 days after ovulation when the ovum forms in the graafian follicles and migrate to the fallopian tube when fertilization takes place in the presence of an active sperm. The mature and viable ovum normally remains in the tube for approximately 1–3 days after ovulation has taken place and it regresses in the absence of fertilization from a viable male spermatozoon.

Various means are employed in the practice of periodic abstinence as a means of family planning. [39] Viz:

1. **The calendar method**: This is based on the prediction of the ovulation period of a woman based on the menstrual pattern observed and recorded over a period of several months. Ovulation normally occurs 14 days before the first day of the next menstrual period. The fertile interval should be assumed to extend from at least 2 days before ovulation to at least 2 days after ovulation. Abstinence from sex during these two days before or after ovulation can either way increase the chances of a successful family planning practice. The successful use of this method is therefore based on the knowledge that the luteal phase of a menstrual cycle is relatively constant at 14 days for normal women. It is important to note that this method is often successful for women with a normal menstrual cycle and failure rates are high for women with infrequent menstrual cycles. Despite the fact that the calendar method is the most commonly used method of periodic abstinence, it is known to be the least reliable with failure rates as high as 35% in 1 year's use [39] which necessitates the need for additional methods for effective contraceptive practice among couples.

2. **Temperature Method**: This is a relatively more efficacious method of periodic abstinence as a means of family planning. This is because, despite variations in dates that could occur even in the same individual, basal body temperature recording are more reliable evidence of ovulation in a women. For this method to be very effective, the vaginal or rectal temperature must be recorded in the morning before engagement in any physical activity and other causes of elevation in temperature due to illness must be ruled out. A slight drop in temperature occurs 24–36 hours after ovulation and this is often not noticed among most women. The temperature then rises sharply at an estimated 0.3–0.4°C (0.5–0.7°F) and remains at this plateau for the remainder of the cycle. The third day after the onset of elevated temperature is considered the end of the fertile period for which couples could utilize such knowledge as a means of abstinence for contraceptive purposes. A major limitation of this method is the fact that prediction of the fertile period (timing of ovulation) in a given cycle is done retrospectively and this makes it difficult to predict the date of onset of the fertile period.

3. **The combined temperature and calendar method**: This method of abstinence is based on the use of the features of the calendar and the temperature methods that are discussed above. A combination of these methods is usually a more accurate method of predicting the fertile and safe period of a women. Burkman & Brzezinski, [39] noted that this combined method has a failure rates of only 5 pregnancies per 100 couples per year among well-motivated couples.

4. **The cervical mucus**: The cervical mucus also known as the billing method of contraceptive is based on changes noticed from the cervical mucus secretions that are as a result of alterations in hormones that occurs during ovulation for which the mucus is used as a means of predicting the unsafe period of a women and therefore enables them to avoid sexual intercourse. The mucus is usually thin and watery at onset and becomes thick and opaque close to the highly fertile period when ovulation occurs. This method has the advantage of requiring less efforts like charting to identify the ovulation period. The disadvantages of this method include difficulty in evaluating mucus in the presence of vaginal infection and the reluctance of some women to evaluate such secretions which could led to mispredictions.

5. **The hypothermal method**: This method employs the features of both cervical mucus and temperature methods discussed earlier. Burkman & Brzezinski, [39] stated that if this method is used properly, it could be described as the most effective form of all the periodic abstinence methods. In addition, symptoms that may occur just prior to ovulation, such as bloating and vulvar swelling, are used as adjuncts to ovulation.

Despite these methods in the prediction of ovulation among women, the most accurate method to determine ovulation is to demonstrate the Luteinizing hormone peak in serum. This method is however quite expensive and impractical as a means of family planning. It is however employed for optimum time of coitus for couple who seek for a baby and can also be employed as an optimum time for artificial insemination. [39]

Coitus Interruptus: This is one of the oldest forms of contraceptive that involves the withdrawal of the penis before ejaculation with resultant deposition of the semen outside the vagina. The advantage of this form of natural family planning method include the fact that it requires no devices or chemicals for its implementation and a readily available back-up method of contraception. Its disadvantages are a decline in sexual excitement due to interruption of the process and this could result to inconsistency in providing contraception to couples who may suddenly prefer the pleasure than the contraception. A high failure rate due to inexperience and lack of self-control with semen containing sperm leaking into the vagina before the person ejaculates is a common setback for this method [39, 41]. It is also important to note that this form of contraception does not protect individuals against sexually transmitted infections such as gonorrhea, syphilis, and HIV/AIDs. The World Health Organization [42] in family planning global handbook for providers, noted that withdrawal method is the least effective method because it depends on the man's ability to withdraw before he ejaculates which is usually not reliable. However, the withdrawal method is estimated to be about 73% effective if practiced correctly.

Lactational Amenorrhea Method (LAM)

One of the benefits of exclusive breast feeding is the contraceptive potency it provides to couples through a process known as lactational amenorrhea. Lactational amenorrhea refers to a form of contraceptive that is based on breast feeding practices that results to a cessation of the monthly menstrual flow of a woman. This is due to a delay in ovulation caused by the action of prolactin hormone from the effect of lactation or breastfeeding the baby. The physiology of this method is based on the suckling reflex. During suckling of the nipple by an infant, neural signals are sent to the mother's brain (hypothalamus), which influences the anterior pituitary gland to secrete prolactin hormone that stimulates breast milk production. This, in turn, inhibits the secretion of follicle stimulating hormone (FSH) and luteinizing hormone (LH), and as a result inhibits the ovulation of a women's eggs. While women are exclusively breastfeeding, prolactin continues to be secreted and pregnancy is unlikely because the uterus and the uterine follicles are not primed for fertilization. When prolactin levels decrease, the woman's monthly bleeding may return, and if she continues to have unprotected sexual intercourse, pregnant may ensure.

For lactational amenorrhea to be fully effective, the following three conditions must be met:

1. The woman's menstrual period must not have returned.
2. The baby must be exclusively breastfed frequently, day and night. Exclusive breastfeeding, means the infant receives no food or fluids other than breastmilk for a period of six months.
3. The baby must be less than six months old because from six months onwards complementary feeding most have been introduced and this will affect the sustained regular suckling needed for lactational amenorrhea. A disruption in any of these criteria may require the use of another contraceptive method in order to prevent an unwanted pregnancy and to ensure healthy birth spacing of at least three years. Other factors that could cause a decrease in suckling can result in the return of ovulation and decreased milk production. These include supplemental feeding of the infant, reduction in the number of breastfeeds or long intervals between breastfeeds, maternal stress and maternal/child illness. During such moments, the client should not rely on lactational amenorrhea as a means of contraceptive. Lactational Amenorrhea has some advantages and this include effective prevention of pregnancy for at least six months, promotion of exclusive best breastfeeding and an immediate form of contraceptive after birth which does not interfere with sexual intercourse. It also has the advantage of no hormonal side-effects. The disadvantage of this method include the fact that it is not a suitable means of contraceptive for women who work outside of their homes, it does not protect against Sexually Transmitted Infections like HIV/AIDs. If the mother has HIV, there is a small chance she may pass it to her baby in breastmilk and this could be avoided if the family could met up with the challenge of food supplements. The method is also effective after six months. Despite these disadvantages, the World Health Organization [42] noted that the lactational amenorrhea is 98–99% effective if the conditions are fulfilled and women adhere to optimum practice of feeding the child which include: use of both breasts to breastfeed their babies on demand with no more than four-hour interval between breastfeeds during the daytime, and no more than a six-hour interval between breastfeeds during the night-time. If they

are unable to fulfill these conditions, you should advise and provide them with a complementary family planning method.

Post coital Douche: This process involves the use of plain water, vinegar, and several "feminine hygiene" products that are in common use for postcoital douches. Theoretically, the douche flushes the semen out of the vagina, and the additives to the water may possess some spermicidal properties, the process is nevertheless unreliable and ineffective because sperms can be found within the cervical mucus within 90 seconds after ejaculation which increases the chances of pregnancy.

Artificial Methods

Barrier Methods

The use of barrier methods of contraceptive is of public significance because globally, it is one of the effective ways of preventing sexually transmitted infections in addition to prevention of pregnancy. These methods prevent pregnancy by creating a physical barrier to the sperm from reaching and fertilizing the egg. Monga and Dobbs [41] noted that these methods can be used in addition with hormonal method or intra uterine contraceptive device to give personal protection against infection and also increase the contraceptive efficacy.

Male Condoms

This is one of the commonest form of barrier contraceptives. The male condom is usually made of latex rubber that is inserted round the penis before sexual intercourse. It has the advantage if being relatively cheap and are widely available for purchase or free from many clinics. This form of contraceptive have been heavily promoted in Safe Sex campaigns to prevent against the spread of sexually transmitted infections particularly HIV/AIDs.

Condoms vary in sizes and shapes and are increasingly available with different textures, flavors, colors and scents that may be appealing to various individuals. Condoms should reach global standards and be within shelf life before use to ensure effectiveness and prevention of certain adverse reaction following use of expired products. Following a burst or condom slipping off during sexual intercourse, emergency contraceptives should be used immediately to prevent unwanted pregnancy. Some men and women may be allergic to latex condoms or spermicide, and hypoallergenic latex condoms and plastic male condoms are available as an alternative for them.

For effective use of condoms, healthcare workers may need to teach individuals on how to use condoms properly and men should be instructed to apply condoms first before any genital contact and to withdraw the erect penis from the vagina immediately after ejaculation.

Female Condoms

Female condoms are made of plastic and also available in most pharmacy shops in with the brand name Femidom. This form of condom offers great protection from sexually transmitted infection because they cover the whole of the vagina and vulva and are made up of plastics that are less likely to burst. However, many couples find them unaesthetic with less acceptance despite its advantage.

Diaphragm

Diaphragms are a form of barrier method that are inserted immediately prior to intercourse and are removed no earlier than 6 hours later. This form of female barrier method is common in the United Kingdom and it is known to require careful teaching and fitting of the kit. Female barriers offer protection against pelvic infection, but can increase the risk of urinary tract infection and vaginal irritation. These side effects and relatively higher requirements on how to use it makes it to be a less popular means of contraception across the globe.

Cervical Cap

Various cervical caps are also marketed. The cervical cap is a thimble-shaped cup. Before sexual intercourse, users are advice to insert them with spermicide to block or kill sperm.

Emergency Contraceptives

This is also referred to as postcoital contraception. They include the various contraceptive methods that can be used to prevent pregnancy in the first few days after intercourse.[20] It is intended for emergency use following unprotected intercourse, contraceptive failure or misuse (such as forgotten pills or torn condoms), rape or coerced sex.[20] Four methods of Emergency Contraceptives commonly in use are: the copper-bearing intrauterine device (Cu-IUD) for Emergency Contraception and three different types of emergency contraceptive pills (ECPs) which include: levonorgestrel-only ECPs (LNG-ECPs), combined estrogen–progestogen ECPs (combined ECPs) and ulipristal acetate ECPs (UPAECPs). [20]

Levonorgestrel intrauterine system (LNG IUD)—This is a small T-shaped device like the Copper T IUD that is placed inside the uterus by a doctor. It acts by releasing a small amount of progestin each day that prevents pregnancy. It could stay in the uterus for up to 3 to 6 years base on the type of the devise used. Failure rate is typically within 0.1-0.4%.

Copper T intrauterine device (IUD)—This IUD is a small device that is shaped in the form of a "T." It is placed inside the uterus by the doctor to prevent

pregnancy. It can stay in the uterus for up to 10 years with a failure rate of 0.8%.

Hormonal Methods

These methods are discussed below.

Implant: This is a single, thin rod that is inserted under the skin of a women's upper arm to provide contraception. The rod contains a progestin that is released into the body over 3 years. This progestin is what inhibits the process of pregnancy. Failure rate is estimated to be 0.1%.

Injection or "shot": This involves the administration of a shot in the buttocks or arm of a woman every three months. Failure rate is estimated to be 4%.

Combined oral contraceptives: This is also called "the pill". Combined oral contraceptives contain the hormones estrogen and progestin. Women who want to avoid pregnancy are prescribed to take this pill each day by the physician. Contraindications to taking these pills are: older age group (35 years), history of smoking and a positive history of blood clots or breast cancer. Typical use failure rate for these combined pills is 7%.

Progestin only pill: Unlike the combined pill, the progestin-only pill (sometimes called the mini-pill) only has one hormone, progestin, instead of both estrogen and progestin. It is prescribed by a doctor usually for women who could not take contraceptives that contain estrogen. This pill is taken daily at the same time and it has an estimated failure rate of 7%.

Patch: This skin patch is worn on the lower abdomen, buttocks, or upper body (but not on the breasts). It acts by releasing progestin and estrogen into the bloodstream. It is usually taken on a weekly basis for three weeks. The patch is not used during the fourth week to ensure menstruation. Typically, when used appropriately, the failure rate is 7%.

Hormonal vaginal contraceptive ring: The ring releases the hormones progestin and estrogen. The ring is placed inside the vagina. You wear the ring for three weeks, take it out for the week you have your menstrual period, and then put in a new ring thereafter. Typically, when used appropriately, the failure rate is estimated to be 7%.

Permanent Methods of Birth Control

Female Sterilization: This is also referred to as tubal ligation. It involves "tying the tubes" to prevent sperm having access to the female egg and therefore prevent the process of fertilization. The procedure can be done in a hospital or in an outpatient surgical center. This process is safe and effective and clients can resume normal activities within the same day of the surgery. Effectiveness of this method is usually immediately the surgery is performed and typical use failure rate is 0.5%.

Male Sterilization: This is also known as vasectomy and involves an operation that is done to prevent a man's sperm from going into his penis, such that his ejaculate is sperm less and cannot fertilize an egg. The procedure is typically done at an outpatient surgical center. The man can go home the same day. Recovery time is less than one week. After the operation, a man visits his doctor for tests to count his sperm and to make sure the sperm count has dropped to zero; this takes about 12 weeks. Another form of birth control should be used until the man's sperm count has dropped to zero. Typically, the failure rate for this form of permanent contraceptive is 0.15%. [43]

Family Planning Acceptance

Family planning acceptance which is the act of taking or receiving family planning services continue to be a concern in most low- and middle-income countries despite its well-known benefits.

According to the World Health Organization [44] health-care facilities that provide family planning services must do so in an acceptable manner to the intended beneficiaries within communities and health facilities. They must provide such services in a manner that shows respect to medical ethics and cultural sensitivity to individuals, minorities in the communities and the various groups and classes within the communities. These services must be gender sensitive taking into cognizant the life cycle of beneficiaries. Programs must be designed to respect confidentiality, and improve the health status of those concerned.

The importance of family planning to efforts to achieve developmental goals such as the MDG 5 to improve maternal health cannot be overstated. It is central and a key pillar among three other strategic interventions aimed at accelerating the reduction of maternal and newborn morbidity and mortality. The other interventions are emergency obstetric and newborn care and skilled birth attendance preferable taken in a health facility. The benefits of Family planning are many and it ranges from improved maternal and child health to increased education and empowerment for women, to more financially secure families for stronger national productivity and economy of nations. [2]

Family planning has already changed the face of the world. It has transformed and saved the lives of countless women. Since 1970s, it has been observed that National family planning programs across the globe have made significant improvement and, in 1994, the ICPD affirmed that freedom to decide the number and timing of children's births is a vital component of reproductive health and a human right. A right that should be enshrined in every nation and supported for the actualization of the goals of family planning in the 21st century.

Despite benefits of family planning in achieving improved wellbeing of women of reproductive age and attainment of developmental goals, acceptance of family planning in low- and middle-income countries continue to face several challenges. These barriers are discussed below.

Barriers to Family Planning

Despite efforts and availability of family planning services in Nigeria and other low and middle income countries, uptake continue to be low as a result of several barriers. These barriers could be client or health services related.

Akamike [45] in their systematic review of literatures observed that client related include the desire for more children, educational qualification of women, partner disapproval, fear of side effects, religious and culture disapproval, marital status, wealth index, lack of knowledge of contraceptives and domestic violence. Health service related factors identified include difficulty accessing services, challenges due to cost and procurement family planning services and methods and quality of family planning provided at the health facility due to medical barriers, lack of modern family planning methods and stockouts of modern contraceptives methods to choose from. [46]

Client Related Factors

Desire for more Children: Family planning utilization is often affected by the desire to have more children. Not completing the desired family size [47] and a desire for male child or children [48] has often negated against the use of family planning methods. However, women with adequate or high family sizes tend to use family planning services more than those who still desire to have children. [49]

Educational Qualification: Educational level is directly proportional to family planning use. This is because the higher the educational attainment of a women, the more likely she is going to use family planning methods and vice versa [50]. Women with high level of education tend to understand the benefits of family planning more and this translates to their behavior of accepting family planning. This is unlike less educated women who do not have the right knowledge and may be mis-informed on issues around family planning that will eventually reduce their acceptance and uptake of family planning methods and technologies.

Partner Disapproval: Partner disapproval is often a reason for non-utilization of family planning methods. This experience is common in societies where men are often in control of virtually all of the activities within the family without collaborating with the women. Women who desire to delay or limit births often experience disapproval from their spouse and this limits the use of contraceptives. [51]

Fear of Side Effects: Side effects from family planning methods could contribute to poor patronage of modern family planning methods.

Religious and Cultural Disapproval: Certain religious groups and cultures show aversion to family planning methods.

Marital Status

Married women tend to have access to family planning services then single women. This could be attributable to the fact that some health care providers may not want to offer these services to unmarried individual. [46]

Wealth Index: Wealth index of women and family often affects family planning use due to access to finance and education of the benefits of family planning methods. Eluwa et al [50] observed that poorer women were less likely to use a method of family planning that women from affluent backgrounds.

Contraceptives Knowledge: Lack of contraceptive knowledge is one of the barriers to family planning. A high proportion of women of reproductive age group lack knowledge on available family planning methods and its benefits. This has adversely affected the acceptance of family planning methods in most climes. It is however noted that women with good knowledge of contraceptives tend to use family planning methods more when compared to those with poor knowledge on family planning.

Domestic violence: Fear of intimate partner violence has been cited as a contributory factor to non-utilization of family planning services. Some male partners who desire bigger family size or due to cultural and religious reasons amongst others may resort to domestic violence which therefore makes some women avoid family planning services.

Health Systems related barriers

Access Factors: Accessing family planning services may be difficult for spouse who are living far away from health centers that are providing family planning services. Spouse who stays faraway from health facility and source of family planning services in rural low and middle income countries like Nigeria may have challenges in accepting and using family planning methods. The absence of functional and effective primary health care systems with family planning services based on current methods and technologies has hinder the acceptance and uptake of family planning services.

Cost of Family Planning Methods: A relatively high cost of effective family planning methods and technologies may hinder some women to purchase and utilize family planning services. Poverty especially among the rural poor who do not have access to free family planning services may mitigate the acceptance and use of family planning methods and technologies.

Quality of Family Planning

The term quality, refers to the degree of excellence and in family planning, several criteria are required to be met to achieve excellence. Ensuring universal access to high-quality services is a cornerstone for designing and implementing effective sexual and reproductive health programs. The quality of family planning methods is a pre-requisite to its acceptance and usage and according to Strobino, Koenig & Grason [52] there are six quality criteria for family planning. Viz: (1). choice of contraceptive methods, (2). information given to the users, (3). provider competence, (4). client/provider relations, (5). re-contact and follow-up mechanisms, and (6). an appropriate constellation of services. Thus, to provide quality family planning services, health care workers and managers are expected to ensure the various quality criteria are achieved in the course of delivering family planning services.

Evidence has shown that acceptance of family planning methods is important in the actualization of the benefits of family planning. Addressing quality of service in addition to several interventions will promote knowledge and willingness of couples to accept family planning. Once acceptance is high, unmet needs of contraceptives becomes low and the problems of sexually transmitted diseases, complications from abortions of unwanted pregnancy and the psychological wellbeing of women will be addressed.

Strategies to Improve the Quality and Acceptance of Family Planning

Family planning quality and acceptance is essential in improving the welfare and autonomy of women in communities and societies at large [20]. Quality service is paramount to achieving high standard of health for women and children to live a productive life in any society but this is often neglected in most low- and middle-income countries [20]. A review of measures to improve family planning services reveals that development and implementation of a strategic plan such as provision of qualified midwife/nurse at primary health care centers, task shifting and continuous training/capacity building of health workers, supportive supervision, government support of family planning and collaboration with international organization to ensure steady availability of family planning services and products with a social and behavioral change intervention is needed to achieve improved family planning uptake especially in Bayelsa State.

Development of a Strategic Plan

A strategic plan is a road map for project implementation which clearly states the goals, activities and cost of the project to be implemented with its target audience. Development of a strategic plan or updating an existing plan is therefore needed for ensuring improved quality and acceptance of family planning methods. The strategic plan should have a detailed description of the various interventions identified to be helpful in the delivery of family planning services and a budget for the activities, be clearly stated in order to pool adequate resources needed for the implementation of the family planning program. A strong monitoring and evaluation process should also be connected with the plan to be able to monitor progress and impact of the interventions.

Provision of Qualified Midwife/Nurse at Primary Health Care Centers

Health manpower is a major component of health system strengthening which is needed for the successful implementation of health care services. Because an estimated 70% of the populations are urban dwellers whose primary health care centers is usually the first point of contact to the health care system, it becomes very important to have adequate mix of skilled staff at the centers to provide couples and young people the right health education and services for family planning. Government engagement of nurses and midwives who are skilled in the provision of family planning services at the primary health care centers with referral to tertiary centers if the need arises is an important component of actualizing the reproductive health of women. The presence of these skilled workers and appropriate supply of modern family planning methods will encourage an expanded basket of contraceptives, ensure the right information is given to clients, give choice to couples of contraceptive methods, expand the access, both financial and physical acceptance of contraceptive.

Task Shifting

Task sharing is defined as the “systematic redistribution of family planning services, including counseling and provision of contraceptive methods, to expand the range of health workers who can deliver services” (WHO, 2017). Task shifting is an effective, efficient and safe means to improve access to spouse sexual and reproductive health services in order to reach national Family Planning goals for countries with limited health manpower.

It is a means to scale up the high need of family planning services in low- and middle-income counties especially among vulnerable hard-to-reach communities that lack access to family planning in addition to a lack of adequate health manpower to provide the needed family planning services [53].

Continuous Training/Capacity Building of Health Workers

Training available health workers like community health extension workers on some family planning methods to enable them conduct counseling and provide basic care is essential in actualizing the goals of increasing access to family planning in hard-to-reach communities with no skilled health workers such as nurses, midwives and doctors to provide standard quality care.

Supportive Supervision of Family Planning Services

Supportive supervision is a process of guiding, helping, training and encouraging staff to improve their performance in order to provide high-quality health services through the use of integrated Supportive Supervision tools. A supervision session will include review of program implementation at primary health care level and identified gaps with subsequent fixing of those gaps in order to improve the delivery of health services. This process is highly required for family planning services as it strengthens skills as well as enable providers to administer the standard quality of care that is acceptable by clients.

Government Support of Family Planning

Government commitment to family planning through adequate budget and provision of free access or subsidized rates of various modern family planning methods is essential in ensuring quality family planning services.[54] Policies on appropriate birth spacing and a strong campaigning to ensure couples have the number of children they will be able to take care of is also important in ensuring acceptance and uptake of family planning methods which is needed for a controlled population that support economic growth and development. Giving incentives to couples with high family size who receive family planning methods could also encourage more people that needs family planning service to opt for it.

Collaboration with International Organization

Government collaboration with local and international non-governmental organizations and the United Nations agency such as UNICEF and UNFPA can be a critical driver of improved access and quality of family planning methods.

Social and Behavioral Change Interventions

Social and behavior change (SBC) can improve health outcomes by changing the attitudes, perceptions, and practices around health and family planning decision-making. This can be achieved through effective communication via one on one or group health education sessions or through the mass media, community mobilization and community engagement.[55]

Health Education

Health education of clients on every information they need to enable them make informed decision and voluntary choice of a contraceptive method is key to promoting family planning practices within a society. Key information that should be provided about each contraceptive method are: relative effectiveness, correct usage, how it works, common side-effects, health risks and relative benefits as well as the signs and symptoms that are needed to make an urgent return to the clinic. Information should be presented using language and formats that can be easily understood and accessed by the client.

The World Health Organization [20] noted that ensuring adequate number of trained personnel in well-equipped and accessible health facilities to manage sexually transmitted infection as well as complications from contraceptives is essential in improving family planning acceptance. Furthermore, the use of proper information education and communication (IEC) materials and interpersonal communication programs (IPC) programs should be done to encourage new acceptors, retain current users of family planning methods with an eventual increase in the contraceptive prevalence rate needed to gain the benefits of family planning.

Community Mobilization and Engagement

Mobilizing key stakeholders and engaging them from the planning to implementation and monitoring and evaluation of family planning programs can be an effective means of promoting family planning. Evidence by the United Nation Population Fund [53] revealed that in some communities, the mobilization and engagement of key faith leaders within the Catholic faiths and some Islamic groups could be difficult as they show a lot of resistant to family planning. Catholics shows complete objections to abortion. Despite this trend, many religious leaders are proving increasingly open to the argument that sexual and reproductive health for women is essential for community welfare and these once that shows support could be used in implementing family planning programs. Fighting early marriage and encouraging spacing of children is becoming more accepted through community mobilization and community engagement. [53] The influence of clerics is pivotal in winning wider support for programs. The UNFPA and other organizations, for example, are working with leaders in places such as Sokoto, Nigeria and in Chad to change attitudes needed for improved family planning practice for improved maternal and child health.

Mass Media and Social Marketing

Mass media such as telephones and radio have been very effective in transforming the landscape of family

planning services. These media are useful in disseminating key messages to target beneficiaries and Gillespie, Ahmed, Tsui & Radloff [56] observed that there is a positive relationship between concentration index which is a measure of the availability of family planning radio messages, knowledge on services and contact with field workers and modern contraceptive prevalence. Telephones specifically have been helpful in collecting data and monitoring and evaluation of family planning programs through data collection and sharing to data base for analysis and decision making. They also help in communication and monitoring of the distribution of family planning regular supplies with a goal of avoiding out of stock for essential family planning commodities. Their wide availability, portability and privacy also mean they can provide advice targeting remote communities, and populations that are often excluded from various interventions. A study in Rwanda, for instance, suggested young people need more information but often feel family planning services are for married couples and not designed for them. The program can be experimented with sending young people information about sexual health via text messages.

Monitoring and Evaluation

Monitoring

Monitoring is a process by which priority data and/or information is routinely collected, analyzed, used and disseminated to see progress towards the achievement of planned targets. This process helps in the identification of any gaps or challenges and once noticed, could be fixed to ensure improved performance of the project. Monitoring of the inputs and outputs of health programs, including family planning can be very useful and should be a routine practice for family planning programs. The most common form of monitoring is often based on input and output indicators using routinely collected service data.

Monitoring consists of these components of routine data collection and aggregation (combining data from different sources) is the means by which routine service data is collected, aggregated, analyzed and made ready for further performance monitoring and performance monitoring which is the continuous tracking of required information on conducted activities and its indicators of success, in order to identify achievement gaps and lessons learnt. At all levels, performance monitoring will be based on the developed annual plan.

Evaluation

Program evaluation is the systematic process of data collection, analysis and interpretation of activities and its effects or impacts on a program, or any of its components. Program evaluations may be either process evaluation, which examines the appropriate execution of program components, or outcome evaluation, which examines the benefits of implementing an intervention or any of its components. Impact evaluation is usually conducted to determine the effectiveness of family planning interventions and this could be on a yearly basis or at the end of the program.

The implications of the above are that;

- There will be improve uptake of family planning services.
- Promotion of maternal health and wellbeing.
- Economic empowerment of women and society
- Economic growth and development of a nation.

CONCLUSION

Family planning has changed the face of the world with it several benefits including promotion of maternal health and wellbeing, economic empowerment of women and society and economic growth and development of a nation.

Despite these benefits, acceptance of family planning services continues to face several barriers ranging from client related factors to health system related factors for which quality is a major concern.

Improving quality through strategic plans and implementation of these plans with a great monitoring and evaluation system is key to addressing barriers and promotion of family planning acceptance in every society and in Bayelsa State.

These measures should therefore be encouraged with support from government, humanitarian organizations and family support to ensure they derive the highest benefit from family planning.

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