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ARTICLE

Focused antenatal care: Re-appraisal of current practices

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T. Ebunoluwa Oshinyemi, J. Ojo Aluko

and O. Abimbola Oluwatosin

Review

Focused antenatal care: Re-appraisal of current practices

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Focused antenatal care has been viewed to be a better option to the previously existing orthodox model of antenatal care. The orthodox antenatal care otherwise known as traditional model of antenatal care requires a number of routine and frequent visits by pregnant women to the healthcare facility. This traditional model of antenatal care has been observed to require numerous materials such as financial and human resources for its continuous implementation. The observable cumbersome nature of the traditional model necessitates the recent exploration of alternative model of antenatal care referred to as focused antenatal care (FANC) model. The FANC model emanated during the era of evidenced based practice and evidence based approach to care. Evidence-based ensures that the care rendered are based on previous outcomes of care and are focused on what can be achieved during the less regular but specific visit, which is characterized by being client friendly with reduced cost of implementation. Despite this importance of FANC, antenatal care continues to be centered around clinical assessment, and regular attendance at the clinic. Thus, the objective of this paper is to review the traditional care model and the focused antenatal care model because antenatal care remains a mixture of both art and science, and to re-appraise current antenatal practices.

Key words: Focused antenatal care, pregnancy, clinical assessment.

INTRODUCTION

Recently, focused antenatal care (FANC) has proven to be a better option to the traditional model of antenatal care (ANC). The traditional model of ANC otherwise known as orthodox model of ANC requires regular clinical assessment and frequent visits to the antenatal clinic, thus it consumes more time and larger resources. The traditional model of ANC is also centered on quantity of care rather than quality of care (World Health Organization, 2015).

Antenatal care (Prenatal care) is the care provided to a

pregnant woman before delivery. The care includes the clinical assessment of the pregnant woman and her fetus during the pregnancy period in order to achieve a favorable outcome for both the mother and child. ANC services require detailed history taking, physical examination, laboratory and diagnostic investigations.

While rendering these services activities are directed at sustaining the maternal physical and psychological health and improving the fetal wellbeing to ensure the delivery of a live healthy neonate, and also prepare the family for

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parenthood (Women's Healthcare, 2014; Lincetto et al., 2006).

World Health Organization (WHO) (2006), defined antenatal care as "activities directed at screening for health and socio-economic conditions that are likely to increase the possibility of specific adverse pregnancy outcomes, and providing therapeutic interventions known to be effective; educating pregnant women about planning for safe birth or how to deal with emergencies during pregnancy". Focused antenatal care is a goal oriented antenatal care with activities directed at clinical assessment and specific decision making processes when rendering care to the pregnant woman while also maintaining targeted and individualized care.

Traditional approach to antenatal care (ANC)

Traditional approach to antenatal care dates back to the 1900, it was introduced by social reformers in the United States, and in 1978 the World health Organization integrated the risk based approach to antenatal care still with the aim of improving the quality and outcome of care. During the risk based approach, pregnant women are expected to make frequent visits to the health care facility, they are then classified into low and high risk with the aim of early identification of those at risk of developing complications from their previous history such as medical, obstetrics and gynecology and social history (Kearns et al., 2014).

WHO's Maternal Health and Safe Motherhood Program in 1994 initiated the "Mother-Baby Package: implementing safe motherhood in countries" and under it identified the four pillars of Safe Motherhood Initiative as family planning, antenatal care (ANC), clean/safe delivery, and essential obstetric care. This package was not expected to operate on its own but was to be integrated into the existing health systems, and the existing model of antenatal care was the risk based approach under the traditional model of ANC. The weakness of the high risk approach include its uncertainty at predicting pregnant women at risk because all women can be regarded as being at risk of different complications which may not be identified during the frequent antenatal visits thus improved quality of care is essential to all women in order to achieve better outcomes in maternal and child health (WHO, 1994).

The traditional model of antenatal care visits were: once a month till 32 weeks gestation, twice a month till 36 weeks gestation, and weekly till delivery, a pregnant woman is therefore expected to make up to 14 antenatal visits to the hospital before delivery. Emphasis is placed on the number/quantity of visit rather than the quality of visit, routine risk indicators such as maternal height and weight were used to identify those at risk of developing complications during delivery and there seems to be little difference in outcome of care between the frequent

antenatal visit and the focused antenatal visit. Currently, the trend is shifting towards reducing the number of antenatal visit, while at the same time establishing clearly defined objectives to be achieved at each visit and improving quality of care rendered at each visit (Women's Health care, 2014).

In the traditional model of ANC, pregnant women were classified as being at low risk or high risk based on predetermined criteria, this was difficult to implement effectively since women usually had at least one risk factor, even the low risk women develop complications particularly during childbirth while in the focused model of ANC, specific evidence-based interventions are provided for all women, carried out at certain critical times in the pregnancy (Lincetto et al., 2006).

The traditional model assumes that the more the number of visits, the more favorable the outcome, therefore pregnant women were expected to make up to 16 antenatal visit regardless of their risk status to the healthcare facility and only pregnancy related issues are addressed during this visit, the model relies on routine risk indicators, such as a maternal height that is lesser than 150 cm, weight lesser than 50 kg presence of edema of the legs, and mal-presentations before 36 weeks gestation (Assegid et al., 2017).

Focused antenatal care (FANC)

The focused antenatal care was instituted in 2002 by the WHO in an attempt to overcome the challenges posed by the traditional antenatal model of care such as classifying pregnant women into high risk or low risk group based on pre-identified criteria, and the possibility of the low risk group developing complications at delivery (Kearns et al., 2014; Assegid et al., 2017).

For the adoption of the FANC model to be evidenced based, a multi-country randomised trial was conducted in 2001 to assess the effectiveness of the focused antenatal care, compared to the traditional antenatal care model, findings revealed that healthcare providers tolerated the focused antenatal care model, women in both models of care were generally satisfied with services, and FANC financial implications were the same or lesser than the traditional antenatal care (Kearns et al., 2014; Villar et al., 2001).

Another review of randomised controlled trials by WHO in 2001 compared interventions with a lower number of antenatal visits to the traditional ANC model, findings revealed similar results (Carroli et al., 2001; Kearns et al., 2014). Together, these studies led to the WHO's conclusion that care models with reduced antenatal visits could be implemented in both developed and developing countries without negatively affecting health outcomes of pregnant women or their infants.

The FANC focuses on quality of antenatal care than the frequency of visits, emphasis are laid on providing

individualized care accordingly rather than categorizing groups of women into high risk or low risk, the FANC assumes that all pregnant women are at risk of developing complications therefore care is focused on early identification of complication as they arise, targeted and individualized care and the use of evidenced based practice in developing care (USAID, 2007; Assegid et al., 2017). This model of care makes pregnancy a family responsibility, the husband and the woman are fully informed of the potential complications, birth preparedness, postnatal care and planning for future child spacing/childbirth.

Women who present with pre-existing risk factors or medical conditions as well as women who are identified as having complications throughout their care are enrolled in a specialized care model that includes additional assessments, visits, and evaluation. The focused antenatal care model separates pregnant women into two groups: those likely to need only routine antenatal care (some 75% of the total population of pregnant women), and those with specific health conditions or risk factors that necessitate special care (25% of pregnant women). For the first group, a standard program of four antenatal visits is recommended (with additional visits should conditions emerge which require special care). The WHO guidelines are also specific as regards the timing and content of antenatal care visits according to gestational age. The guidelines stipulate that "only examinations and tests that serve an immediate purpose and that have been proven to be beneficial should be performed" (Abou-Zahr et al., 2003).

A study conducted in Zaire in 1984 on 3614 pregnant women showed that majority (71%) of the women who developed obstructed labor were previously categorized as 'not at risk', while 90% of women who were identified as 'at risk' did not develop obstructed labor, this shows evidence that most pregnancy problems are unpredictable (Assegid et al., 2017).

Benefits of focused antenatal care

Antenatal care aims at achieving positive pregnancy outcome in pregnancy; this outcome is to ensure improved maternal and neonatal health. The reduced visits by pregnant women to the healthcare settings provides reduction in the financial implication thus the saved money can be channeled to other use such as for specialized investigations. Also less visit to the healthcare personnel enable them to be available for other purposes especially in resource constrained environments. Specifically, adopting the FANC model is expected to produce the following outcomes (USAID, 2007, Assegid et al., 2017):

- (1) Targeted assessments of pregnant women.
- (2) Prompt identification and treatment of diseases.

(3) Early detection of complications and other potential problems that can affect the outcomes of pregnancy.

(4) Providing prophylaxis and treatment for anemia, malaria, and sexually transmitted infections (STIs) including HIV, urinary tract infections and tetanus.

(5) Providing individualized approach to care of pregnant women.

(6) Health promotion activities focused on birth preparedness, complication readiness, adequate nutrition, benefits of immunization to both the mother and the child, personal hygiene and postnatal care.

(7) Counseling on warning signs necessitating urgent attention.

Principles of focused antenatal care

Focused antenatal care model operates under the following principles (WHO, 2002; USAID, 2007; Assegid et al., 2017):

(1) Principle of woman friendliness: Antenatal care should be rendered in a cordial environment, healthcare providers should be accommodating, clinic hours should be friendly and convenient enough to accommodate the need of clients and their schedule of work. Health care providers should make all pregnant women feel welcomed at the clinic, it has been shown that the number of women seeking antenatal care increases proportionally with increases in hours of operation (USAID, 2007). Antenatal interventions or investigations should be carefully planned with the woman to increase their satisfaction with care while at the same time making room for improved outcome of care.

(2) Individualization of care: All information known about the woman from the detailed health history (medical, surgical, obstetrics and social history) should be used to individualize care and plan care with the woman.

(3) Targeted assessment and management : Targeted assessment of pregnant women under the FANC model assist in early identification and treatment of already established disease and early detection of complications and other potential complications, it is also used in categorizing pregnant women into groups of those that require routine care of the four visit only and those that require specialized care. Early management of these conditions that are identified can lead to improved maternal and fetal outcome.

(4) Family participation: The health care provider respect the opinion of the spouse in decision- making process, the entire family watches out for signs of complications and participates in birth preparedness, complication readiness and emergency planning. Family participation ensures compliance on the part of the woman and a fuller and safer reproductive health experience for the woman, her newborn and her family.

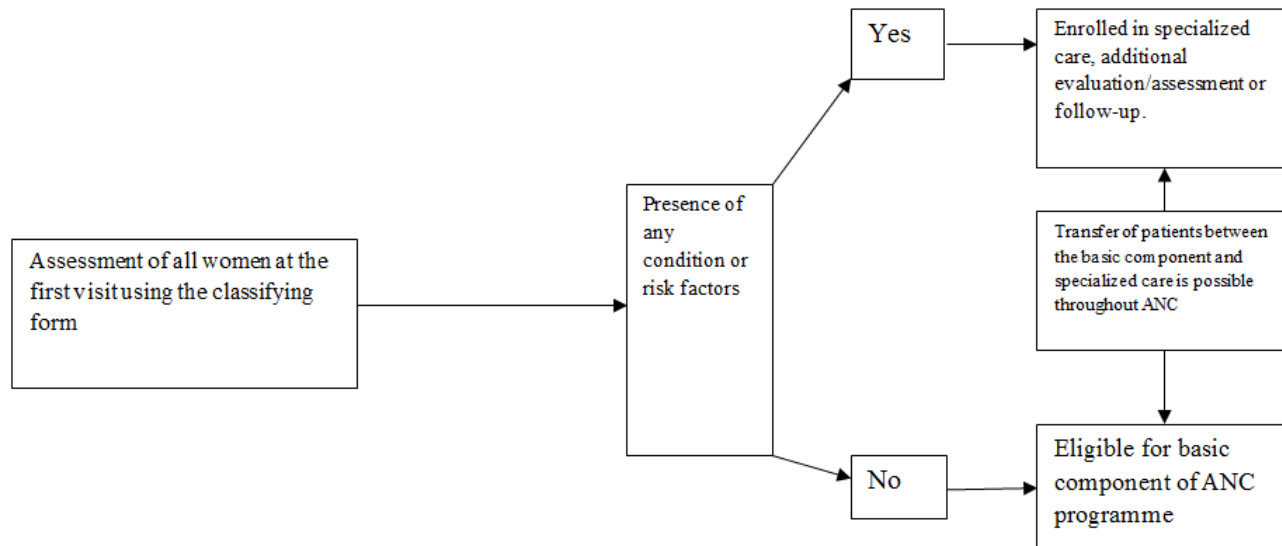


Figure 1. The focused antenatal care model.

(5) Culturally acceptable and appropriate: All activities in the focused antenatal care model must be culturally acceptable and appropriate as every culture has specific myths and beliefs, taboos and practices surrounding pregnancy and childbirth thus information should be centered around the necessity of certain healthcare interventions.

(6) Health promotion: Focused antenatal care should include health promotion activities by disseminating information, health education and counseling on balanced diet, personal and environmental hygiene, birth preparedness, emergency readiness and delivery. The steps in newborn care, importance of breastfeeding and immunization should be emphasized.

(7) Community commitment: Many of the components of FANC can be provided at the community level; therefore, linkage with the formal health care system is imperative to ensure adequate training and supervision of community health workers and implement functional referral systems.

(8) Integration of care: FANC should include other activities such as sexually transmitted infection and HIV testing/ counseling, malaria detection and prevention, micronutrient provision, birth planning, emergency planning and family counseling.

(9) Referral: The focused antenatal care model should adequately plan for referral and transportation to the appropriate health facility, a simple referral form should be created, this can be used to easily identify women with special health conditions or those at risk of developing complications and utilized to refer women to a higher level of care.

(10) Appropriate examinations/ tests: Only examinations and tests that serve an immediate purpose

and that have been proven to be beneficial should be performed (WHO, 2002; USAID, 2007).

The WHO focused antenatal care model

The model segregates pregnant women into two groups: those eligible to receive routine ANC called the basic component and those who need special care based on their specific health conditions or risk factors (figure 1). Pre – set criteria are used to determine the eligibility of the women for basic component. The women who need special care will represent, on average, approximately 25% of all pregnant women attending antenatal care (WHO, 2002; USAID, 2007).

The classifying form for FANC

The classifying form as designed by the WHO is used at the first antenatal visit to the clinic to decide which women will follow the basic component or the specialized care (figure 1). The format of the form can be adapted to the format to be used in each clinic setting (WHO, 2002). The form contains 18 checklists, composed of closed ended questions that require a ‘yes or no’ response. They cover the patient’s obstetric history, current pregnancy and general medical conditions.

Obstetric history

- (1) Previous still birth or neonatal loss.
- (2) History of three or more consecutive spontaneous abortions.

- (3) Birth weight of last baby < 2500 g.
- (4) Birth weight of last baby > 4500 g.
- (5) Last pregnancy: hospital admission for hypertension or pre-eclampsia.
- (6) Previous surgery on reproductive tract.

Current pregnancy

- (1) Diagnosed or suspected multiple pregnancies.
- (2) Age less than 18 years.
- (3) Age more than 40 years.
- (4) Iso-immunization: Rhesus negative in current or previous pregnancy.
- (6) Vaginal bleeding.
- (7) Pelvic mass.
- (8) Diastolic blood pressure 90 mmHg or more at booking.

Medical

- (1) Insulin-dependent diabetes mellitus.
- (2) Renal disease.
- (3) Cardiac disease.
- (4) Known substance abuse (including heavy alcohol drinking).
- (6) Any other severe medical disease or condition.

The basic component of the focused antenatal care is composed of four visits, the World Health Organization clinical guideline for each of the visit are as follows (WHO, 2002):

The first FANC visit should occur before 16 weeks gestation but some pregnant women may present later than that, activities are directed at using the pre-set criteria to categorize women into those eligible for the basic component of the antenatal care and those who require specialized care (WHO, 2002; Lincetto et al., 2006). The objectives of the first FANC visit are to:

- (1) Obtain a detailed medical and obstetrics history and carry out physical examination and observation of vital signs.
- (2) Assess hemoglobin level to determine the presence of anemia, perform urinalysis to identify abnormalities.
- (3) Perform abdominal examination, and correlate the last menstrual period date with the fundal height measurement to determine the gestational age of the fetus.
- (4) Initiate the individualized birth plan.
- (5) Health educate on balanced diet, routine antenatal medications such as iron and folic acid supplementation and the use of insecticide treated bed nets (ITNs) and intermittent preventive treatment of malaria in pregnancy using sulfadoxine-pyrimethamine.
- (6) Provide HIV counseling and prevention of mother to

child transmission of HIV (PMTCT) services. Offer immunization services such administration of tetanus toxoid.

- (7) Provide information on birth preparedness, complication readiness, blood transfusion and transportation.

The second FANC visit should occur between 24 to 28 weeks gestation. The objective of the second visit is to follow-up on the first visit, monitor the progress of pregnancy and address any complaints of the woman, the individualized care plan is reviewed and modified appropriately. The third FANC visit should occur between 30 to 32 weeks of gestation. In addition to what is expected of the second visit the objectives of the third visit are:

- (1) To identify presence of multiple pregnancy necessitating referral
- (2) Detect for the presence of protein in urine
- (3) Determine the need for referral based on risk assessment
- (4) Health educate on exclusive breastfeeding, birth preparedness, signs of labor, postnatal care and family planning.

The fourth FANC visit should occur between 36 to 40 weeks gestation, in addition to the objectives of the third visit the activities in the fourth visit are to:

- (1) Confirm fetal position and fetal presentation during the abdominal examination
- (2) Review the individualized birth plan

DISCUSSION

The introduction of FANC is associated with questions such as the appropriateness or adequacy of the four antenatal visits, the adequacy of the contact time required to get to know patients and care providers, social aspects of ANC and identifying if the clients actually desire a reduction in the number of their antenatal visits. Several studies identify the number and spacing of antenatal visits as potential areas of concern in FANC (Villar and Bergsjö, 2002).

According to Umeora et al. (2008), the recommended WHO focused antenatal care is yet to be implemented in many communities in rural Nigeria. In their study on the attitude of antenatal clients in a rural mission hospital to the new antenatal model, focused group discussions were carried out for 12 weeks; findings revealed that out of the 144 clients interviewed, none had heard of the new antenatal care model. More than half of them will prefer the traditional model with multiple visits than the new model. The traditional visit was said to be more reassuring and provides the clients time away from their

routine chores/occupations and afford them the opportunity to interact with other expectant mothers and get acquainted with the health care providers (Umeora et al., 2008). The study concluded that to realize the goals of the new antenatal model in Nigeria, mass enlightenment and education must precede its gradual and cautious introduction.

Aluko and Oluwatosin (2008) conducted a research on the pattern and outcome of antenatal care among women attending a Catholic mission hospital in Ibadan, Nigeria using the records of 581 women who attended antenatal clinic, findings of the research showed that women had low rate of booking at first trimester and irregular visits to antenatal clinics, their finding also showed that antenatal visits were initiated by the presence of symptoms of illness, thus they recommended that antenatal care settings should adopt the modified antenatal care model (focused antenatal care), to improve compliance and also stress the importance of early booking at antenatal settings.

Aniebue and Aniebue (2011) evaluated the attitude of pregnant women to the new antenatal care model with four antenatal visits (focused antenatal care) using a cross-sectional survey in Enugu, Nigeria. Only 20.3% of the women desired a change to the new model, respondents who defaulted from antenatal care three or more times, those dissatisfied with their current antenatal care, senior civil servants and those who received secondary school education or less most commonly desired a change to the new model. Default from antenatal care and dissatisfaction with current antenatal care were factors associated with the desire for change. The most common reasons for desiring the change were convenience and cost considerations. Reasons given for the rejection of the new model were: fear of inadequate learning during antenatal care, the suspicion that four visits were inadequate for familiarization with healthcare providers, the need for early detection of disease and social satisfaction from antenatal visits, however the researches stated that these factors can be changed by health education and social mobilization (Aniebue and Aniebue, 2011).

Ajayi et al. (2013) conducted a study on quality assessment of the practice of focused antenatal care (FANC) in rural and urban primary health centres in Ekiti State, Nigeria, their study made an attempt at analysis of the practice of FANC according to the recommendation of WHO at the most basic level, and to determine the facilitating factors and challenges to the practice of FANC in urban and rural areas, that is comparing the primary Health centers in both urban and rural areas. Their study utilized two hundred (200) respondents each from urban and rural areas, simple random sampling was used to select 18 primary health centres for the study, in-depth interviews were conducted with the heads of selected facilities. Their findings showed that, 58 (29.3%) respondents from the urban areas had the minimum

contents of the FANC compared to 41 (20.7%) of the rural respondents and 178 (90.8%) of the urban were taught a range of health education topics compared to 177 (88.5%).

Furthermore their study revealed that urban respondents were more likely to receive the minimum contents than rural respondents. In-depth interview results showed that the facilitating factor was free health service scheme in place in the state and the major challenge to focused antenatal care was inadequate number of skilled health workers especially in the rural areas studied. They concluded that, basic contents of focused antenatal care in Ekiti state were received by a small proportion of the respondents, suggesting that focused antenatal care had not fully translated into quality service.

In another study by Oluwatosin and Aluko (2014), on the compliance with intermittent preventive treatment of malaria during pregnancy among postpartum women in selected Hospitals in Ibadan, the descriptive survey study collected data from 346 women attending postnatal and child welfare clinics of the selected Hospitals using questionnaires, part of the findings from their study revealed that the settings still operate the traditional model of antenatal care and not the focused antenatal care model, and respondents in their study were not regular at antenatal visits, thus they recommended that focused antenatal care which is characterized by fewer visits be adopted by antenatal care settings to improve compliance.

The acceptability of focused antenatal care by pregnant Nigerian women in Lagos University Teaching Hospital and factors influencing the acceptability was examined by Olamijulo et al. (2015), their findings revealed that a greater proportion of women (56.1%) indicated their acceptance for FANC model. Their study went further to identify that a greater percentage of those with secondary and tertiary level of education accepted FANC when compared with those with primary level of education. In their study majority of their respondents' related acceptability of the FANC model by the WHO to convenience of the new model while others who still indicated preference for the traditional model of antenatal care preferred it because of fear of complications arising in the course of pregnancy if antenatal visits are reduced.

The study on "Determinants of Focused Antenatal Care Uptake among Women in Tharaka Nithi County, Kenya," using a descriptive cross-sectional survey design revealed that the level of uptake of focused antenatal care among respondents was slightly more than half (52%) and the determinants of uptake of focused antenatal care are level of education, type of employment, household income, parity, and marital status of the pregnant women. The study therefore concluded that irrespective of the high attendance of at least one antenatal visit in Kenya, the uptake of focused antenatal care is proportionally low (Gitonga, 2017).

Ekott et al. (2017) in their study on acceptability of focused antenatal care by antenatal clinic attendees in Obio Cottage Hospital, Port Harcourt, Nigeria found out that 75.7% of pregnant women were willing to accept making fewer visits that still met their health needs, while 24.3% would not accept making fewer visits. The main reason for accepting reduced visits by these women was to save time 40.6%, and the main reasons given for rejecting reduced visits were for better monitoring of pregnancy (35.1%) and early detection of problems (21.6%) in pregnancy.

The world health organization new guidelines for ANC

In 2016, the WHO designed new recommendations/guideline for ANC for pregnant women and adolescent, these recommendations are expected to complement existing WHO guidelines on the management of specific pregnancy-related complications in order to achieve a positive pregnancy experience from ANC because recent evidence in 2015 suggests that a higher frequency of antenatal contacts by pregnant women and adolescent girls to the healthcare facility creates an opportunity to know the women better and detect potential complications therefore likely leading to reduction in the number of still births. Eight or more contacts for antenatal care can reduce perinatal deaths by up to 8 per 1000 births when compared to 4 visits (WHO, 2016), thus producing a positive pregnancy experience for both mother and child. 'A positive pregnancy experience is defined as maintaining physical and socio-cultural normality, maintaining a healthy pregnancy for mother and baby (including preventing or treating risks, illness and death), having an effective transition to positive labour and birth, and achieving positive motherhood (including maternal self-esteem, competence and autonomy)' (WHO, 2016). The new WHO recommendations are related to five types of interventions:

- A. Nutritional interventions,
 - B. Maternal and fetal assessment,
 - C. Preventive measures,
 - D. Interventions for common physiological symptoms, and
 - E. Health system interventions to improve utilization and quality of ANC.
- E7: Antenatal care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care

The 2016 WHO ANC model recommended an increase in the number of ANC visit from 4 visit to 8 contacts. This was necessary because the evidence from review of literature suggests that there has been lesser satisfaction of women with the four-visit model (also known as

focused or basic ANC), thus the recommended number of contacts between the mother and the health-care providers may facilitate assessment of well-being and provision of interventions to improve outcomes if problems are identified. Globally, during the period from 2007–2014, only 64% of pregnant women attended the WHO recommended minimum four contacts for ANC, suggesting that much more work needs to be done to address ANC utilization and quality. Furthermore, evidence suggests that more ANC visits, irrespective of the resource setting, are probably associated with greater maternal satisfaction than less ANC visits (WHO, 2016).

Recommendation E.7 in the 2016 WHO ANC model under antenatal care schedule states that antenatal care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care (WHO, 2016). Thus, the Guideline Development Group (GDG) emphasized that the focused ANC (FANC) model does not offer women adequate contact with health-care practitioners and is no longer recommended. The GDG uses the word "contact" to "visit", as it implies an active connection between a pregnant woman and a health-care provider. The first contact is scheduled to take place in the first trimester (up to 12 weeks gestation), two contacts should be scheduled in the second trimester (at 20 and 26 weeks gestation) and five contacts scheduled in the third trimester (at 30, 34, 36, 38 and 40 weeks gestation) (WHO, 2016).

The list of interventions at each contact are to be adapted to the individual woman and not just prescriptive, it is also expected to be flexible as seen in the FANC Model. If the quality of ANC is poor and women's experience of it is negative, evidence shows that women will not attend ANC, irrespective of the number of recommended contacts in the ANC model. Thus, the aim of the 2016 WHO ANC model is to provide pregnant women with respectful individualized, person-centered care at every contact with the healthcare facility (WHO, 2016) (Table 1).

Challenges of focused antenatal care

The implementation of focused antenatal care is not yet attainable in developing countries like Nigeria for the following identified reasons:

(1) Political factor: Lack of political will on policy change and implementation of favorable policies on the issue of maternal and neonatal morbidity/mortality and the diversion of state funds needed for infrastructural development to personal usage negatively affected the outcome of maternal and child health services (Ekabua et al., 2011).

(2) Resistance to change: Difficulty in changing from the present traditional model of antenatal care of frequent

visit to the practice of focused ANC of reduced antenatal visit by health care workers and clients (Ekott et al., 2017).

Table 1. The WHO FANC model and the 2016 WHO ANC model.

WHO FANC model	2016 WHO ANC model
First trimester	First trimester
Visit 1: 8-12 weeks	Contact 1: up to 12weeks
Second trimester	Second trimester
Visit 2: 24-26 weeks	Contact 2 : 20 weeks
-	Contact 3: 24 weeks
Third trimester	Third trimester
Visit 3: 32 weeks	Contact 4: 30 weeks
-	Contact 5: 34 weeks
Visit 4: 36-38 weeks	Contact 6: 36 weeks
-	Contact 7: 38 weeks
-	Contact 8: 40 weeks

Return at 41 weeks for delivery, if birth has not occurred

(3) Paucity of human and material resources: Inadequacy of both human and material resources adversely affects the implementation of focused antenatal care services. Health care providers such as doctors, nurses and others are inadequate in number to man the various antenatal centers and some are unwilling to live in rural areas of low infrastructural facilities, also, the migration of trained healthcare workers to industrialized nations negatively affects the implementation of focused antenatal care (Kearns et al., 2014).

(4) Economic factor: The current economic climate and commercialization of health services (antenatal care services) may impede the effective implementation of focused antenatal care in certain settings.

(5) Cultural factors: Prevailing cultural norms, illiteracy and myths about pregnancy and child birth make some women consult unskilled birth attendant/traditional healers instead of the professional health workers as pregnancy is perceived as a natural health process.

In line with the aforementioned stated barriers to ANC, Lincetto et al. (2006), opined that general health system weakness, social, economic, and cultural barriers and presence of weak health referral systems to support case management of complications of pregnancy inevitably reduces the overall impact of ANC.

(1) Poor communication among formal health care providers, traditional birth attendants (TBA) and other community health workers may be the cause of low utilization of ANC services in certain communities.

(2) The attitudes and behaviors of health care providers in ANC clinics, of lack of respect for privacy, confidentiality, and traditional beliefs of the women, may negatively influence the use of ANC as well as maternal and child health services at large (USAID, 2007).

Steps for strengthening antenatal care

Steps for strengthening focused antenatal care as identified by Lincetto et al. (2006) are as follows:

(1) Formulation of favorable health policies: Establishing favorable health policies will positively impact maternal and child health outcomes, and reduce the rate of maternal and infant mortality and morbidity.

(2) Setting attainable benchmarks for focused antenatal care: Focusing on attainable standards makes the objective of the new antenatal care model to be achievable in a stepwise way, thereby leading to the implementation of the objective of each antenatal care visit.

(3) Improving supply of human and material resources: Effective implementation of quality antenatal care service require the presence of adequate and qualified healthcare personnel, this will reduce the number of hours women spend waiting to be attended to while at the same time provides for quality service. Subsidizing and providing resources and infrastructure would encourage both pregnant women utilizing care and the provider of care.

(4) Increasing awareness: Dissemination of information on the importance of utilization of antenatal care services increases compliance to treatment regimen.

(5) Quality improvement: Quality improvement allows for the identification of constraints to providing client-orientated, antenatal care and ensures that care is based on evidenced based practice (Lincetto et al., 2006).

CONCLUSION

Antenatal care remains an essential tool in reducing the maternal and neonatal mortality ratio, and improving maternal and neonatal health. However, the traditional model of antenatal care requires frequent visits to the antenatal care center and in resource-constrained environment this model was observed to be encumbered with numerous challenges. This became a justification for the focused antenatal care model which was instituted about a decade ago. The focused antenatal care model is centered on quality of visits rather than quantity of visits. It operates under the principle of individualization of care and views all pregnant women as being potentially at risk of developing complications thus, it aims at early identification and treatment using evidenced based practice. Practice and satisfaction with focused antenatal care has not being adequate and it has produced lesser

positive pregnancy outcome thus the WHO instituted the 2016 WHO ANC model that recommends that contacts during pregnancy should be increased from 4 visits to eight contacts.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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