



## Barriers to Antenatal Care Use, Child Birth Experience and Level of Education on Actual Attendance among Pregnant Women

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### ABSTRACT

Despite the wide spread awareness regarding the need to improve maternal health, maternal mortality remains a great concern in Nigeria. Consequently, the importance of medical attention required in the care of pregnant women cannot be over emphasised. This study investigates the influence of barriers to attending antenatal care among pregnant women in Ibadan. Using a survey method, a total of 114 pregnant women were purposively selected from Akinyele Local Government Area of Ibadan. Data were analyzed using descriptive statistics, t- test and one way analysis of variance at 0.05 level of significance. Three hypotheses were tested. Results revealed that pregnant women who had more barriers (N = 54, mean = 4.5) were less likely to attend antenatal care than women who had fewer barriers (N = 60, mean = 5.6). Pregnant women who had no children (nulliparous) attended antenatal care more than pregnant women who have had at least one child (multiparous) ( $t(112) = 1.2$   $p < 0.05$ ). Thus, barriers should be reduced by making antenatal care mobile and health care givers should be re- trained to develop more positive attitude towards better service delivery especially to pregnant women during antenatal period.

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Keywords:

Barriers, Antenatal care, Actual Attendance, Pregnant Women, Public Hospitals

### 1.Introduction

Antenatal care refers to the regular medical and nursing care recommended for women during pregnancy. It is a preventive care that provides regular check-up by allowing doctors or midwives to treat and prevent potential health problems during the course of pregnancy (U.S. National Library of Medicine, 2012). Antenatal care is crucial considering the statistical estimate that 25 percent of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in the area. Researchers have also revealed that certain pre-existing conditions become more severe during pregnancy. Imad and Bhutta (2011) and Kramer and Kakuma (2003) for example indicated in a study of six West African countries that a third of all pregnant women experienced illness during pregnancy, of which three percent required hospitalisation. Pregnancy poses varying levels of health risk for women, depending on their medical profile before pregnancy. The American Pregnancy Association (2008) noted that due to physiological changes noticed in women during pregnancy, the body system, therefore becomes vulnerable to diseases which may cause some of the complaints that may occur during or after pregnancy, such as pregnancy induced hypertension, anaemia, back pain, carpal tunnel syndrome, constipation, oedema

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(swelling), among others. The individuality of the health status in terms of diseases or other health related conditions (not directly caused by the pregnancy) of each woman may become worse or be a potential risk to the pregnancy (Ryan, Milis, & Misri, 2005).

Opportunities for Africa's New Borns (2010) report suggested that, the goal for antenatal care is to prepare for birth and parenthood as well as prevent, detect and reduce pregnancy complications and other types of health concerns that affect mothers and babies during pregnancy, pre-existing conditions that worsen during pregnancy and the effects of unhealthy lifestyles. Pregnancy associated health problems are expected to be prevented from mothers and their babies by depending on an operational continuum of care with accessibility, high quality care, before and during pregnancy, childbirth, and the postnatal period. Pregnancy related problems however, depends on the support available to help pregnant women reach services, particularly when sudden complications occur (Tinker, Hoop-Bender, Azfar, Bustreo, & Bell, 2005). Lincetto, Mothebesoanc-anoh, Gomez and Manjanja (2006) asserted that an important element in this continuum of care is effective antenatal care. Therefore, they concluded that the accessibility of regular prenatal care can play a part in plummeting maternal death rates and miscarriages as well as birth defects, low birth weight, and other preventable health problems. A good antenatal care is believed to provide a woman and her family with the chance of using a skilled attendant at birth and contributes to good health throughout the life cycle.

However, recent research evidence has indicated a high rate of maternal deaths in Nigeria. Lawn, Blencowe & Pattison (2011) ranked Nigeria as number one in Africa and the second in the world after India, in maternal death, as regards saving new born lives, with 241,000 neonatal deaths annually. Similarly, Obasi (2016) reported that 40,000 Nigerian women die annually during child birth and 576 deaths is recorded out of every 100,000 daily live births. It is estimated that babies who die before the onset of labour, or ante partum stillbirths, account for two-thirds of all stillbirths in countries where the mortality rate is greater than 22 per 1,000 births – nearly all African countries (Crowley, 2003). The state of health of pregnant women predicts the health of their unborn children and therefore, it is very important that pregnant women are given the best care (Healthy People 2020, 2014).

It therefore, appears that there are challenges relating to the use of available antenatal care services. The issue is whether pregnant women make good use of these services during pregnancy as expected and if not, what accounts for this attitude. The study carried out by Awusi, Anyanwu and Okeleke (2009) revealed that 43% of the women in Emevor village, Delta State, Nigeria do not adequately utilize antenatal care services during pregnancy. World Development Indicators (2013) revealed that, 57.6 % of pregnant women received antenatal care in Nigeria at least once during pregnancy. Peltzer and Ajegbomogun (2008) also observed that Nigerian women have a tendency to obtain care late in pregnancy, and for about one third of them, the care would be inadequate. They also noted that almost half (47%) of the women would attend the antenatal clinic only in the third trimester, 21% would attend during the first trimester. Ninety-four percent would come for subsequent visits, 77% thrice, 76% four times, 74% five times and 73% six times. Low utilisation was explained by costs as one of the major barriers to utilisation of late and antenatal care. Tayebi, Shahnaz and Rezaali (2013) noted that inadequate prenatal care was associated with poor birth outcomes. The significance of this study, therefore, is to emphasize the risks associated to this attitude of non-use of ante-natal care provided for pregnant women and the dangers it poses to both the pregnant women and the unborn children, who incidentally does not have any power of choice on decisions relating to the use of these antenatal care provisions.

Saving New Born Lives in Nigeria (2011) also observed that the content of antenatal care visit does not reflect a focused antenatal care package of interventions. The coverage of at least one antenatal care visit with a skilled care provider reaches 62% of women. Only 45% make four or more antenatal care visits, and fewer (36%) make their first antenatal care visit during the first three months. Almost forty percent of pregnant women in Nigeria deliver their babies with just a relative or no attendant present at all. 39% of deliveries are with a skilled birth attendant- doctors, nurse/ midwives. Traditional birth attendant assist 22% of births. The proportion of home birth is 90% in the North-West and 87% in the North-East zones of the country. These statistics also refer to the fact that there are a large number of people who do not consistently use the antenatal care in Nigeria or probably encounter barriers which debar them from using the antenatal care (Saving New Born Lives in Nigeria, 2011).

The report above is contrary to the expectations of the World Health Organization of pregnant women towards ante-natal. The body indicates that the first antenatal care visit should be as early as possible in pregnancy, preferably in the first trimester. The last visit should be at around 37 weeks or near the expected date of birth to ensure that appropriate advice and care have been provided to prevent and manage problems such as multiple births, such as twins, post maturity births, such as, birth after 42 weeks of pregnancy, which increases the risk of foetal death and abnormal positioning of the baby. The first assessment in antenatal care is to distinguish pregnant women who require standard care, such as the four-visit model, from those requiring special attention and more visits. Depending on individual situation, approximately 25-30% of pregnant women are likely to have specific risk factors which require more attention (Lincetto, et al. 2006). These women need more than four visits so as to identify their problems at the early stage and reduce the probability of further complications. But if these women do not attend or miss their appointments due to some barriers, which this study aims to identify, it means that these women have their lives and that of their unborn children on the line for death.

According to WHO (2008), inequality also exists among women requiring antenatal care. Young, rural, poor, and less educated women may not benefit from antenatal care services or may drop out due to barriers and low quality services. In addition, another report also shows that household wealth status (being rich) has significant positive effect on the number of visits before delivery (Awusi, 2009). The use of antenatal care service in a given population depends not only on the availability and accessibility of services but also the socio-economic status of the household (Pandey, 2004) There are significant differences in the number of antenatal visits determined by geopolitical zones and the place of antenatal also determines significantly the number of visits (Awusi, 2009). Another study done at Uttarakhand in India supports that full ANC is substantially higher for women living in urban area than their rural counterparts, also, that educational level of women has positive relationship with the use of full ANC (Digambar and Harihar, 2011). This indicates that most rural, poor and uneducated pregnant women would have more barriers in attending antenatal care.

Although some researchers have examined the barriers to the use of antenatal care, there are few recent studies focusing on the influence of barriers on consistent use of antenatal care in Western Nigeria. Therefore, this study intends to investigate the barriers faced by pregnant women on actual attendance of antenatal care. The following research questions are identified: Can barriers faced by pregnant women influence their use of antenatal care? Can child birth experience influence the use of antenatal care? Can the level of education of pregnant women influence their use of antenatal care?

In the light of the above questions, three hypotheses were tested:

1. Pregnant women experiencing less barriers would significantly attend antenatal care more than pregnant women faced with more barriers.
2. Pregnant women with tertiary education would significantly attend antenatal care more than women who had primary education.
3. Pregnant women who had no previous child birth experience would significantly attend antenatal care more than pregnant women who have had at least one child.

## **2. Method**

### **2.1. Design and Sampling**

This research is a survey research design. The independent variables are: barriers to the use of antenatal care, which was categorized into more barriers and few barriers, child birth experience, categorized into no child birth experience and child birth experience, and level of education, categorized into primary, secondary and tertiary education while the dependent variable is actual attendance of antenatal care. Convenience sampling method was used to select Akinyele Local Government General Hospital from the 33 Local Government Public Hospitals while purposive sampling method was adopted in selecting one hundred and

fourteen pregnant women attending antenatal care in Akinyele Local Government General Hospital, whose situations served the purpose of the research, into the study.

## 2.2. Participants and Setting

A total of 114 participants were drawn from the population of pregnant women attending antenatal care at the General Hospital, Akinyele Local Government, Ibadan. The demographic characteristics of the participants for this study are as follows: the participants' ages ranged between 18 and 42 years, mean age ( $\bar{x}$ ) = 28.2 years and standard deviation of (SD) = 5.9. On marital status, 107 (93.9%) of the participants were married, while 7 (6.1%) were single. On the participants' type of family, 96 (89.7%) were monogamous while 11 (10.3%) were polygamous. Participants' years of marriage for this study ranged from 1 year (6 months to 1 yr) to 18 years, while the mean is  $\bar{x}$  = 4.5 yrs (SD = 5.0). Their educational status ranged from No school = 1 (0.87%), Primary school = 16 (14.0%), Secondary school = 49 (43.0%) to Tertiary school = 48 (42.1%).

## 2.3. Measures

A structured questionnaire was used for sourcing information for this research. The demographic section includes items such as ethnic group, age, location, educational qualification, marital status, years of marriage, type of marriage, occupation, monthly income, husbands' educational qualification, husbands' monthly income, number of pregnancies, number of children, parity related questions, number of times attended (antenatal care) for previous children and intention to complete antenatal care. Barriers to antenatal care was measured with a newly developed Barriers to Antenatal Care Use Scale by Oyinlola and Sunmola (2013). The scale was developed and standardized for the purpose of the study and it measures the barriers that can hinder pregnant women from attending antenatal care. It consists of 31 items with Yes or No response format. These barriers can be categorized into three levels; they are barriers in the decision to seek care, barriers in reaching care and barriers in receiving adequate care. Sample items include "I don't like the way doctors react towards me at the clinic", "I wait too long to see the doctor", "Pregnancy is a private thing and I don't like to talk about it to any one apart from my family members". All items are in negative direction. The scale would be scored by summing up the responses and divide by 31, higher scores indicate more barriers while lower scores indicate low barriers to antenatal care use. Its Cronbach alpha is 0.63.

Actual attendance was measured by Actual Attendance of Antenatal Care Scale developed by Oyinlola and Sunmola (2013). The scale consists of three items such as: the last appointment you were given did you attend? The last two antenatal appointments you were given did you attend? The last three appointments you were given did you attend all? The participant's responses were confirmed by checking the clinic records for the appointment cards of the pregnant women, which shows the number of times the participants have attended antenatal care. If one antenatal attendance was missed within the last three appointments, it would indicate that the pregnant woman is not frequently adhering to antenatal care appointments. The internal consistency (reliability) of the scale was 0.73.

## 2.4. Procedure

All the purposively selected participants were adequately informed about the academic nature of the research from the beginning of the study. They were also guaranteed the anonymity and confidentiality of their responses before their consents were obtained. The questionnaire was translated from English to Yoruba and back to English by the experts in linguistics for the purpose of participants who did not understand English and were administered in both English and Yoruba and all participants completed the questionnaires by themselves. The questionnaires were administered with the help of 2 trained research assistants. A total of one hundred and twenty questionnaires were administered out of which one hundred and fourteen were well completed and used for the study. The completed copies were scored and analyzed with Statistical Package for the Social Sciences software, version 17.0. Ethical approval for the study was obtained at the Ministry of Health, Oyo State and informed consent was obtained from the pregnant women. The data gathered were analysed using descriptive statistics, t-test and one way analysis of variance.

### 3. Results

**Table 1.** Summary of the independent t-test comparing pregnant women on levels of barriers and actual attendance.

Variable	Barriers	N	Mean	SD	t	df	p
Actual Attendance	Fewer	60	5.6	1.3	5.0	112	0.001
	More	54	4.5	1.2			

Table 1 shows that pregnant women who were faced with more barriers would less likely attend antenatal care compared to pregnant women who were faced with fewer barriers ( $t(112) = 5.0, p < 0.05$ ). This reflects that pregnant women who had fewer barriers ( $N = 60$ , mean = 5.6) were more likely to attend antenatal care than pregnant women who had more barriers ( $N = 54$ , mean = 4.5).

**Table 2.** Summary table of Analyses of Variance (Anova) showing the influence of education on actual attendance of antenatal care.

Source of Variance	Sum of Squares	df	Mean of Squares	F	p	Source of Difference
Between Groups	4.1	3	1.4	0.9	0.382	168.6
Within Groups	172.7	110	1.6			
Total	176.8	113				

Table 2 shows that pregnant women who had primary school education were less likely to attend antenatal care compared to pregnant women who had secondary and tertiary education was not statistically significant ( $d1-df2 (113) = 0.9, P > 0.05$ ). This is an indication that participants' levels of education did not influence their actual attendance of antenatal care.

**Table 3.** Summary table of Independent t-test, showing the influence of child birth experience by pregnant women on actual attendance.

Variable	No. of children	N	Mean	SD	df	t	p
Actual Attendance	No child	53	5.2	1.2	112	1.9	0.050
	≥ 1 child	61	4.9	1.3			

Table 3 shows that pregnant women who had no child would be more likely to attend antenatal care than pregnant women who have had at least one child was statistically significant ( $t(112) = 1.2; p < 0.05$ ). This result reflects that pregnant women who had no child ( $N = 53$ , mean = 5.2) were significantly more likely to attend antenatal care than pregnant women who had at least one child ( $N = 61$ , mean = 4.9).

### 4. Discussion

Hypothesis one was confirmed. The pregnant women who were faced with more barriers would less likely attend antenatal care compared to the pregnant women who were faced with fewer barriers. Other studies have noted associations between a woman's lack of rapport with health providers, dislike of going to the doctors (Gazmararian, Schwartz, Amacker and Powell, 1997), perception of the health care system as

threatening or discriminatory (Rogers & Schiff,1996) and late onset of prenatal care (Strickland and Strickland,1996). Seventy nine percent of the pregnant women that belief pregnancy is a private thing and should not be shared with any one aside their family members were not consistently attending antenatal care. In the course of this research this was found to be a cultural issue. It is believed that a pregnant woman should not announce her pregnancy, so that evil spirit would not enter her womb. 43.6% of the pregnant women that use herbs (which is also a barrier) were not consistently attending antenatal care. This research shows that 25% of pregnant women who preferred traditional birth attendants were not consistent in attending antenatal care. All these are the major barriers that pregnant women at the Akinyele local government general hospital were facing which may not make them consistently attend antenatal care.

It is also evident that these pregnant women were still committed to their indigenous care in pregnancy. Lincetto, et al.(2006) also identified that barriers to the access and uptake of antenatal care are financial and cultural. Even though finances can also be an issue, 3.1% of the pregnant women that believed ANC is expensive did not consistently come for antenatal care. Although distance to the antenatal clinic was not significant in this research, this could be because most of them live not far away from the facility, more so, the Oyo State Government provided free buses (Ajumose buses, 2012 - 2016) for selected people including pregnant women within the state which made it easier for women to go to clinics as at when due.

Hypothesis two was not confirmed. Pregnant women who had primary school education were less likely to attend antenatal care compared to women who had secondary and tertiary education. This indicates that pregnant women's level of education did not influence their actual attendance of antenatal care. This could be as a result of previous knowledge and the enlightenment that participants might have had in the past. The World Health Organisation (WHO) and other organisations had funded so many programmes in the past by educating and enlightening women on the advantages of attending antenatal care and the problems that may arise if they do not. This includes birth preparedness, health information and counselling for pregnant women, their families and communities. Relevant information, education and advice regarding appropriate nutrition and rest, promotion for early and exclusive breast feeding, smoking cessation, avoidance of alcohol and drugs and parenting skills are made available for the woman and family (WHO, 2009). All these in place are sufficient for the pregnant woman as a form of information and education, therefore whether participants were literates or not did not matter since adequate awareness had been created. In addition to that, in African setting, especially among the Yoruba people, pregnant women are highly regarded and treated with optimum care and given preference. There is a communal responsibility of the older women to the younger women on how to take care of pregnancy. Most women are midwives themselves and this explains the reason why a pregnant woman would get help to be delivered of her child even on the roadside. If this happens, all the women around would remove their wrappers to cover the pregnant woman while she is being delivered.

Hypothesis three was also supported. Results revealed that women who have not experienced child birth (nulliparous) will attend antenatal care more than women who have given birth to at least a child (multiparous). This outcome is supported by a study by Regenstein, Marsha, Cummings and Huang (2005) who found that women with more experience with pregnancy (multiparous women) and women older than 35 years placed less importance on prenatal care. The probable reason for this is that those who had no experience of child birth are inquisitive, wanting to know and learn how to take care of themselves and their unborn babies. Abram Maslow's hierarchy of needs theory (Maslow, 1943), states that once a need is achieved it no longer motivates and individuals move on to fulfil the next stage of the need hierarchy. Pregnant women who have had experience of child birth may have also attended antenatal care during the early years of their previous pregnancies, and therefore, they may not see any need to repeat the process. Such pregnant women may rather be motivated to move on to the next stage of family planning, which will prepare them to either space their children or stop having more children.

## **5. Conclusion**

Findings from this study revealed that the pregnant women who had more barriers did not consistently attend antenatal care, therefore, it is very important that these barriers are reduced. The results also indicated that most pregnant women who attend antenatal care are well informed about how to care for

their pregnancies, therefore whether they had formal education or not did not influence their attendance of antenatal care. Also, the younger women in age and marriage and those who were pregnant for the first time, attended antenatal care more than the older women in age, marriage and those who have had at least one child.

## **6. Implication and Recommendation**

The implication of these findings is that pregnant women who have had experience of child delivery or who are older should be reoriented, that they should not use their previous experiences of delivery to judge or determine their present state of health in pregnancy, because, even though it is the same woman carrying the baby but each pregnancy and delivery has its own uniqueness and should be treated as such. This finding is also a challenge to health care givers especially the doctors and nurses to be patient with their clients, they should come down to the levels of their clients, so that they are not perceived as being bad by the people they are willing to help, or give care to. Pregnant women should be reoriented regarding the importance of antenatal care and treating each pregnancy uniquely from the previous experience of pregnancies they might have had.

The following recommendations were made in the light of the findings of this study. Barriers are hindrances that could affect any one to progress in achieving a goal. The goal that these pregnant women are willing to achieve is to give birth to healthy children with little or no complications. This goal is also very important to the community, society and the country at large. There are some organisations such as the World Health Organization (WHO), UNICEF, Save the Children, among others whose interest is the health of the mother and child. Although this study also recognises that previous support had been given to enlighten and educate pregnant women, nevertheless the good work should not stop. Pregnant women should be continuously reoriented on the importance of antenatal care and the essence of treating each pregnancy uniquely from previous experience of pregnancy. The health belief model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action, would determine the level of commitment in health-promoting behaviours. Therefore, the perceived benefits of attending antenatal care should be regularly emphasised while the perceived barriers be reduced.

It is also suggested that the government should provide a community based antenatal care, such that doctors and nurses would attend to pregnant women by going to their homes especially when they miss the antenatal appointments. This is similar to the importance placed on immunization programme for children which involves mobile health workers moving from house to house to make the programme a success. The same method should also apply to pregnant women and this will ensure that they take appropriate medications and vaccination during pregnancy. The community based service will also go a long way to erase the negative perception that the pregnant women might have about the doctors and nurses, since they would have sacrificed their comfort zones (the clinic) by going into homes to give care. Aside this, doctors and nurses could provide a means of an external cues to reminding their clients of their day of appointment, such as giving them calls and asking about their health. Also, health care givers such as doctors, nurses and midwives should be sensitized on how to specially take care of these pregnant women. Studies have shown that pregnant women have different nausea behaviours in pregnancy (Kitzinger, (1984) & Ryan, Milis, & Misri, (2005)) therefore health care givers should understand this by being patient with them so that these pregnant women will be able to accept their care givers and trust them as their health care givers. If the trust is there, pregnant women may desist from patronizing herbalists and traditional birth attendants who give them herbs and concoctions which may be dangerous to their health and the baby's.

## **7. Limitation of study**

The participants for this study were recruited from public hospitals only. It is suggested that future studies should consider participants from private hospitals, maternity homes and traditional birth attendants.

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