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# Interpersonal Communication, Expectant Mothers and Utilization of Antenatal Communication in Anambra State

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## Abstract

*This study investigated the role of interpersonal communication in antenatal care by focusing on the utilization of antenatal communication among expectant mothers in Anambra State. The research was designed as a survey with a sample of 400 selected from a population of 1,102,032 – being the number of married women within the childbearing age in Anambra State. Questionnaire was used as the data collection instrument. Data analysis was done using simple percentages, Chi-Square Goodness of Fit Test and Pearson's Product Moment Coefficient. Findings showed that there is high access to antenatal care among expectant mothers in Anambra State and a few of them have difficulty in accessing the care. It was similarly discovered that there is a high understanding of antenatal communication in all its relevant aspects among the mothers and that believability of such communication is equally high among them. The study also found that utilization of antenatal communication is high among expectant mothers in Anambra State. Hypotheses testing showed that there is no correlation between educational level of expectant mothers and their utilization of antenatal communication, however, that there is correlation between residency (rural/urban) of expectant mothers and their utilization of antenatal communication. The study concluded that the fact that antenatal messages are conveyed primarily via interpersonal communication may be a factor in the high understanding, believability and utilization of same among expectant mothers.*

***Key words;*** *Interpersonal Communication; Expectant Mothers; Antenatal Communication;*

**INTRODUCTION**

Evidence suggests that providing expectant mothers with adequate maternal care, through interpersonal communication and birth supervision by skilled attendants, and access to emergency obstetrics care in pregnancy and delivery can save lives. (Macfarlane, 1999).It is against this backdrop that this study focuses on interpersonal communication, expectant mother and utilization of antenatal communication.

The health of a nation is dependent upon healthy individuals. Good health starts at the time of conception and continues through pregnancy, birth of the baby and the first five years of life. Parents especially the mother has a great role to play in ensuring the above. It is therefore important that this information is communicated to the parents using the best possible method.

Interpersonal communication was identified as the most commonly used method of communication between the nurses and the women attending antenatal clinic. It was also identified as the method most commonly used by the expectant women to acquire information on antenatal care.

In this study, adequate utilization means availing of antenatal care (ANC) services by the pregnant women one time during the first trimester as per the guideline. Inadequate variables such as predisposing characteristics covered maternal age, education of respondent, occupation of respondents, family income and knowledge; enabling resources included accessibility, waiting time, information of antenatal care service, and need factors focused on parity, types of last delivery, complication during current and previous pregnancy and intention of pregnancy.

Worldwide, about 287,000 women die each year from mostly preventable complication related to pregnancy and child birth (WHO, 1999).A majority of the death related to pregnancy and child birth can be prevented if the women receive adequate information and timely medical care at the crucial moment.(WHO and UNICEF).

Antenatal services were first provided for expectant mothers in England in 1901(Browne and Dixon 1970:12).it was a branch of therapeutic and preventive medicine. It was meant not only to deal with medical issues but also to teach the expectant mothers to understand its potential benefit (healthy pregnancy) and for the importance of dietary and social condition to a good health.

Expectant mothers live in communities where they are constantly communicating with others about their status. Studies in communication has proved that communication based social relations is an important source of information that individuals use to make decisions (Defleur and Ball, 1989:119) The study at these form of communication to see how they can be utilized to compliment the modes and messages offered by health institutions.

Antenatal care is suppose to start as the woman conceives and to continue until she has given birth (Ibid).It was therefore very important for a study to be carried out in this areas, to look at

the how effective the expectant mothers utilize the antenatal during this period. To further establish the believability of the communication.

The health of a nation is dependent upon healthy individuals. Good health starts at the time of conception and continues through pregnancy, birth of the baby and the first five years of life. Parents especially the mother has a great role to play in ensuring the above. It is therefore important that this information is communicated to the parents using the best possible method.

This study sought answers to the following questions:

1. To what extent do expectant mothers in Anambra State access antenatal care?
2. To what extent do expectant mothers in Anambra State understand antenatal communication?
3. To what extent do they believe information passed on to them via antenatal care?
4. To what extent do the mothers utilize the information they receive at antenatal care?

Also, the following hypotheses were formulated and tested:

$H_1$. There will be a correlation between educational level of expectant mothers and their utilisation of antenatal communication.

$H_0$. There will be no correlation between educational level of expectant mothers and their utilisation of antenatal communication.

$H_2$. There will be a correlation between rural/urban residency of expectant mothers and their utilisation of antenatal communication.

$H_0$. There will be no correlation between rural/urban residency of expectant mothers and their utilisation of antenatal communication.

**ANTENATAL CARE: AN OVERVIEW**

Research has indicated that an estimated number of five thousand women and their babies in the world die each year from the complication of pregnancy and childbirth. Again, (Lawn and Kerber 2006, p. 288) also note "more than fifty five thousand of these deaths occur in Nigeria." What the above indices presuppose, according to (Kerber 2007 p.57) is that "Nigeria with only (2%) of the world's population accounts for the for over (10%) of the worlds deaths" In another report, the world health organization and the Federal Ministry of Health reveal that "145 women die every year, as a result of causes related to child birth; a factor which has been established to have strong relationship, with poor antenatal care" Little wonder Adeyekumu Taiwo and Anita (2000 p.123) lament:

> Nigeria ranks second to India in the number of maternal deaths accounting for 255,000 0ut of 912000 neonates that die annually in Africa. Thus, with a neonatal mortality rate of 48/1000 live births and 700 new deaths each day, Nigeria ranks seventh among the African countries where mothers and newborn babies have highest risk of dying

Furthermore, the United Nations Organisation in response to the staggering statistics of maternal and child deaths, takes to a step to ameliorating this challenges in the in their millennium summit declaration in the year 2000. Following the adoption of the terms of the summit, all 189 United Nation member states at that time (there are 193 currently) agreed on the achievement of the following goals:

1. To eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Eradicate child mortality rates
5. Improve maternal health.
6. Combat HIV/AIDS, malaria and other diseases.
7. Ensure environmental sustainability
8. To develop goal partnership for development.

It is important to note at this point that goals number four and five are germane to this study and also to the survival of man and his society. However, as staggering as these pieces of information are, Lincetto, Gomez and Mujanja(2011 p.56) argue that "antenatal coverage and attendance in Africa has not been a success story in Africa since more than two-thirds (69%) of pregnant women have been reported to have aversion antenatal care." They further add:

> That in order to achieve full live saving full -life saving care that antenatal promises to women and also to achieve particularly in Africa the goals number four and five as indicated in the millennium goals charter that thorough sensitization on the importance of antenatal care be mounted and consistent visits made to hospitals during antenatal to foster essential intervention in antenatal care.

Ornalle (2012 p.109) also concurs with the above submission as she writes "that in order to prevent problems for mothers and their babies depends on high quality care during pregnancy, child birth and the antenatal period. It also depends on the support available to help pregnant women reach services particularly when complications occur. An important element in this continuum is antenatal" The question that becomes pertinent here is what is antenatal care?

## MEANING OF ANTENATAL CARE

Antenatal care is a branch of preventive medicine that deals with pre-symptomatic diagnoses of general medical disorders, nutrition, immunology, health education and social medicine in addition to prevention of early detection of pregnancy disorders (Ahmed, 2011 p.38). Hibbard (1988 p.67) writes, "Antenatal care is that key to modern obstetrics."

Antenatal care began particularly in Paris in 1888; it was originally designed to be an in-patient care from 36 weeks to delivery. Dobson (2001 p.305) however, in the United Kingdom, the concept of antenatal care began in Edinburgh in 1902, when first antenatal bed was allocated

for that purpose. (Dobson2001, P.303) notes that "Ballantyne first introduced his concern for pregnant women and this enabled him to study the physiology and pathology for pregnancy for the well being of the fetus/child. Later this spread to all other parts of the world."

In recognition of the importance of antenatal care for pregnant women, world congress launched the motherhood program in 1988 in FIGO conference held in Rio Brazil and directed the consultant national societies to orient the major part of their activity for safe motherhood initiatives. This initiative was particularly aimed at insuring the improvement in the quality of safety of lives of women, through adoption of health and non-health strategies.

A safe motherhood initiative is a global effort to reduce maternal mortality and morbidity. This project aims at curbing the problem of antenatal care, which according to Adekunle (2010) "has caused great challenges for Africans" Adekunle further remarks that that the problem of antenatal care in developing countries; particularly African countries, is that of absent or inadequate antenatal facility, he further adds that "even in situations where there are areas with adequate antenatal facilities, some reasons have always accounted for underutilizations of such facilities" Furthermore, Ikem (2005 p.77) adds that antenatal care aims at providing all those necessary facilities needed to ensure that there is safe delivery for pregnant mothers, and protection of the child" This attention to pregnant mothers Ikem notes, "is important to reduce the high rate of maternal and child mortality."

In addition, Parker (2006 p.55) posits "the concept of antenatal care represents a good model for preventive health which is targeted towards primary and secondary prevention of disease and pathological conditions during pregnancy." This conditions when properly managed, Parker adds, would reduce maternal mortality. Nuraini (2009 p.80) concurs with the above submission, as he reiterates "The need for reducing maternal mortality has become so paramount in developing countries, including Nigeria. One of the strategies that have not failed in ensuring that this goal is met is the provision of antenatal care (ANC) Studies however have revealed the benefits and shortfalls of antenatal care. The question at this point is what are the benefits of antenatal care?

## BENEFITS OF ANTENATAL CARE

Taking good care of the women during pregnancy is a very important practice. It is vital also beneficial to the unborn baby and in order to achieve a healthy and good development of the unborn baby, a proper antenatal care must be ensured. This assertion is hammered home, when Ornella (2009) argues that,

> Good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a crucial time to develop healthy behaviours and parenting skills. Good antenatal care links the links the woman and her family with the formal health system, and consequently increasing the chances of using skilled attendants at birth and also contributing to good health, through a life cycle.

Adequate care during this period she further notes breaks a critical link in the continuum of care and affects both women and babies. Beside the benefit mentioned here, studies have shown that there is plethora of advantages accruing from the proper antenatal care for pregnant mothers one of such studies notes that, it has been estimated that more than (25%) of maternal deaths occur during pregnancy, with variability between countries, depending on the prevalence of unsafe abortion, violence and disease in such area. Between a third and half of maternal deaths are due to causes as hypertension, (pre enclapsia and enclapsia) ante partum hemorrhage that directly correlates with inadequate care during pregnancy, of which three percent require hospitalization. Furthermore, certain pre-existing conditions become more severe during pregnancy. Malaria, HIV/AIDS, anemia and malnutrition are associated with increased maternal and newborn complications as well as, death where the prevalence of these conditions is high. Again, new evidence suggest that women who has been subjected to female genital mutilation are significantly more likely to have complications during childbirth (Anna 2003 p.104) So these women need to be identified during antenatal care to start addressing and early such condition. Gender based violence and exposure to workplace hazards are additional and often underestimated public health problems. Rates of depression may be as high, if not higher in late pregnancy as during the postnatal period. (Anna 2003p.108) says that "the number of complication associated with pregnancy and child birth could be considerably reduced when the womenfolk are educated on the importance of antenatal care and followed up to attend such care units."

On the other hand antenatal care could also be beneficial on the babies, thus reducing the rate of child mortality. In sub Saharan African, studies have shown that an estimated 900, 000 babies die as stillbirths during the last twelve weeks of pregnancy. It is estimated that babies who die before the onset of labour or antepartum stillbirths account for two- third of all stillbirths in countries where the mortality rate is greater than 22 per 1000 births, nearly all African countries. These stillbirths have a number of causes maternal infection, notably syphilis and pregnancy complications. Newborn babies are affected by problems during pregnancy, including preterm birth and restricted fetal growth as well as other factors affecting the baby's development, such as congenital infection. Nevertheless, studies have found out that sustained antenatal care for pregnant women has reduced the number of child mortality recorded in the recent years. Mujanja (2009)

Antenatal care programme has also provided women and their families with appropriate information and advice for a healthy pregnancy, safe child birth and post natal recovery including care of the newborn baby, exclusive breastfeeding and assistance with deciding on the future pregnancies. (Mujanja 2009) Akinrinola and Gilda (2006 p.50) opine that a proper and continued antenatal care programme "depends on competent health providers in a functioning health system with referral services, adequate laboratories and supplies. ANC they continued; improves the survival and the health of the baby directly by reducing stillbirths and neonatal deaths and indirectly by providing an entry point for health contacts with the woman at the key point in the continuum of a care." This assertion was supported by a study conducted by Nwosu (2008 p. 44) which had the following conclusion, "that if 90% of women

received proper antenatal care up to (14%) or 160, 000 people, more newborn lives could be saved in Africa."

Antenatal care again, saves the lives of mothers and their babies by promoting and establishing good health before childbirth and the early post natal period; this time as the period of highest risk. It is the antenatal care that also provides the first contact opportunity for a woman to connect with health service, thus offering an entry point for integrated care promoting healthy home practices, influencing care-seeking behaviours and linking women with pregnancy complications to referral system. Women are more likely to give birth with a skilled attendant, if they have had at least, one antenatal care visit. Merson (2006, p.69).
While research has demonstrated the benefits of antenatal care, through improved health of mothers and babies, the exact components of antenatal care and what to do at what time have been matters of debate. Merson notes that in recent years, "there has been a shift in thinking from the high risk approach to focused ANC. The high risk intended to classify the pregnant women as "low risk" or "high risk" based on predetermined criteria and involved many antenatal care visits" This approach was hard to implement effectively, notes Merson, "since women had one risk factor, and not all developed complications particularly during child birth." While focused or goal oriented antenatal care services provide specific evidence-based interventions for all women carried out at certain times in the pregnancy.

There are so many other benefits of attending antenatal care and some of them (Nematovu 2010 p.11) report:

> It helps the pregnant women get familiar with the health facility and how it functions early enough. This reduces hospital related anxiety and time wasted in looking for special services in late pregnancy. Health workers also get to know pregnant mothers early enough and subsequent visits become easier and friendlier. Initial baseline investigations and assessment are done and the mothers are assigned special doctors depending on the findings. This is done for special cases, such diabetic, hypertensive, epileptic, syphilis urinary tract infection and others. There is also close and regular monitoring of blood pressures. Malaria prevention drugs are given at specific intervals to reduce complications like premature births or fetal deaths due to malaria. Certain blood tests are done to identify potential problems for example anemia, lack of anti bodies for measles, blood group and Rhesus factor, sexually transmitted infections. It is even during this of period of antenatal care that expectant mothers that they are carrying twins or triplets, and which would mean that they will need more close monitoring. It also during these antenatal care visits delivery and what you need for delivery are prepared.

## ANTENATAL CARE, NIGERIAN MOTHERS AND HIGH MATERNAL MORTALITY

According to statistics from UNICEF, "a woman dies from complication in child birth every minute, about 529, 000 each year and the vast majority of them in developing countries" A woman in Sub Saharan Africa has a one in sixteen chances of dying in pregnancy or childbirth compared to one to four thousand risk in developing countries, the largest difference between the poor and the rich countries of any health indicator. Furthermore, eight million babies die before or during delivery every year or in the first week of life. Tragically, many children are left motherless each year. These children are ten times more likely to within two years of their

mother's death. Appallingly, as staggering as these statistics are it might sound as a surprise to indicate that a majority these deaths and disabilities are preventable with a sustained and good antenatal care during pregnancy. Nevertheless irrespective of this fact Africa has recorded an astronomical rise in maternal mortality, Nigeria also is not an exception Kurkchaski (2013 p.33) notes that in Nigeria alone, "maternal mortality rate has reached up to 3200 women (number of mothers per 100,000 births dying within 42 days after the childbirth) in Northern Nigeria particularly, this death is even higher," a reason he attributed to "improper child spacing, bad hygiene and lack of access to medical treatment."

In addition Akiola (2009 p.123) reports that "although the United Population fund has reported that the number of maternal deaths around the globe has been reduced by half since 1990, disparity exists with Nigeria accounting for 14% of all maternal deaths every year" From 1990 to 2012 Akiola adds "Nigeria maternal mortality rate has increased from 470 maternal deaths to 630 maternal deaths for every one thousand life births. The consequences of maternal mortality go beyond mother's death, as it also obstructs the development of families, slow economic growth and leads to reduction in global productivity. Ikenga (2008 p.77). The origin of maternal mortality in Nigeria says Akiola, "is rooted in the countries poor economic state" Brock (2012 p.99) supports the submission when he writes "that in a country that has more than hundred million living in less than one dollar a day, with a poverty level of 55% in 2004 and 63% in 2010, there is the possibility that maternal mortality rate will have a corresponding rise."

In 2001, heads of African union countries met in Abuja, Nigeria to create a plan that will foster growth and improvement of the health sector of their respective countries. The Abuja declaration was formed and Article 26 of that convention describes the goal of the policy thus, "we commit ourselves to take necessary measures to ensure that the needed resources are made available from all sources and that they are efficiently and effectively utilized. We pledge to set a target of allocating at least 15% of the annual budget to the improvement of the health sector" The Nigerian government signed and ratified the declaration signifying their commitment to improve the health sector, which has implication for maternal mortality rates in the country, however, despite this agreement, the Nigerian government has fallen short of this promise. The World Health Organisation reports that in 2008, the Nigerian government had only pledged 5% 0f its annual budget to the health sector. What this presupposes is that the commitment of Nigerian government to improve maternal health becomes questionable, when promises to achieve health goals are not achieved.

In addition to the above data, maternal health statistical overview informs, "that in terms of actual number of maternal deaths, Nigeria is ranked second in the whole world behind India. Nigeria is also a part of group of six countries in 2008 that collectively accounted for more than 50% of maternal deaths globally. In terms of the maternal mortality ratio, Nigeria Nigeria is ranked eighth in sub Saharan Africa, behind Angola, Chad, Liberia, Niger, Rwanda, Sierra Leone and Somalia. This high rate of maternal mortality is higher in the Northern part of Nigeria, where qualitative evidence show that this has been so, as a result of; substandard care, poor child techniques in several hospitals in the north, poor child birth techniques, including substandard caesarian operation sessions.

However, irrespective of the surprising statistics and the position of Nigeria in the global chart of maternal mortality and the quest to address this issue, there seem to be hope, for at least, reduction of the rate of maternal deaths. Prominent among the factors that would paramount in the pursuit and quest to reduce the rate of maternal mortality in Nigeria is the sensitization of the Nigerian masses on the importance of antenatal car. It is in this regard that Nylander and Adekunle 2011 write:

> The problem of antenatal care in the developing countries, especially Nigeria may be considered from two angles; the areas where antenatal facilities are inadequate or absent and the areas where they are but are not properly utilized. The solution to the first problem would appear to be simple. The government concerned should provide these facilities. The second problem presents more difficulties due to a number of factors; the facilities are too distant and expensive, illiteracy and ignorance, traditional, cultural beliefs and prejudices. Whatever the case may be the bottom line is that for there to be effective antenatal care, the government must provide necessary facilities to carry out these programmes, educate the masses on the importance of attending antenatal care and encourage pregnant women to attend antenatal care programmes. These programmes when properly executed will no doubt provide a better antenatal care programme, and this will consequently translate to a reduced maternal mortality in Nigeria. Little wonder Gunning concludes in his work the health benefits of prevention, "that to decrease maternal mortality, morbidity and perinatal mortality, there is the need to make people more aware of their health, include health education in the curricular of primary education and the mass media and more importantly, provide antenatal care at the doorstep of every woman."

## INTERPERSONAL COMMUNICATION: A DEFINITION

When communication takes place between two or more persons, particularly in a face-to-face situation and producing an immediate feedback, such communication is referred to as interpersonal communication. In this type of communication Okunna (1994 p.15) "notes, "feedback is given in form of verbal and non verbal cues and the person participating in this type of face to face communication can utilize words as well as gestures and other non verbal cues to indicate that messages are being clearly received and understood." Ndidi (2005, p.116) defines interpersonal communication as a person-to-person interaction or dialogue by means of oral verbalization or use of signs commonly understandable by parties concerned.

The most basic interpersonal type of communication is called the dyadic communication. A dyad is basically made up of two persons and is therefore the smallest group of communication that can exist. This type of communication of communication can be illustrated by any conversation between two people. In this process the channel of communication is the voice, as it is carried through the air and has its destination is to the person who receives the message, when the receiver of the message responds either verbally or non- verbally, there is a feedback and this feedback completes the process of communication.

International communication can also take place in small number of people referred to as a micro group. An example of this micro group communication could be a board meeting or a round table discussion or a meeting of a group of villagers who has come for a sensitization programme. This type of communication has an immediate and direct feedback. This is simply

because communication in a face to face situation offers the participants ample opportunity to talk and respond Okunna (1994 p. 17).

Macro group communication is another type of interpersonal communication. In this type of communication situation, there is a large audience or group. A typical example of this type of interpersonal communication is a large group of people in an evangelical crusade or at a political rally.
Conversely, mass communication differs to a great extent with interpersonal communication, because in mass communication the modes of messages are to a huge audience through an artificial channel or machines called mass media. Idowu (2000 .p 44) This mass media Merrill and Lowestien (1979) "state, are referred to as artificial channel, since they have been set up to act as or for persons" They are, in effect institutionalized channels and as it were, considered to be newspapers, magazines, radio, television, films, books and more recently the computer and internet. This type of communication cannot take place in a face- to -face situation, because the audience is scattered and feedback in this situation is usually delayed.

Interpersonal communication has been identified to have a number of advantages over mass communication. These advantages include the following:

- It enables for a face to face situation and provides a situation where the communicator and the communicatee can exchange on a face to face situation cues, experiences, meanings, and ideas. The participants in this type of situation are more relaxed.
- In the interpersonal communication there is an immediate response and feedback. In this instance feedback is given as verbal or even non-verbal cues this is because people participating in this type of communication can utilize words as well as gesture and other non-verbal cues to indicate that messages are being clearly received. In Mass communication feedback is usually delayed.
- This type of communication further ensures a dyad, which is the smallest unit of communication. This type of communication experience might not be possible in mass communication.
- In this type of communication, the communicator might not need any mechanical channel to reach his or her audience. What this mean is that in a situation where there is no mechanical device to transmit the voice, the sender of the message can make use of his or her voice. However in mass communication there must always be a mechanical channel to send the message to the scattered audience. (Sandman et al 1973)
- This type of communication is also very easy and less expensive to run, this is unlike mass communication which requires electricity and heavy transmission gadgets for relay and transfer of messages
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On the other hand, Interpersonal communication has got its weaknesses. These weaknesses have always placed a barrier and limitation on the effective usage of the process. These weaknesses include:

- It does not guarantee the transfer of messages to a scattered audience, like the mass communication channel.

- Messages in interpersonal type of communication are sometimes transient and not retrievable, this weakness is seldom found in mass communication, as such channels of communication like the newspaper, magazine, films, books and even the internet retrievable and can always be recalled at intervals.

**ANTENATAL CARE AND INTERPERSONAL COMMUNICATION**

Effective communication, states Betts, (2012 p.134) "is crucial for health care professionals" she further adds that "studies over the last three decades identify communication problem as persistent causes for concern in the delivery of health care" When communication is lacking in the health care industry, there is poor medical care given, mistakes made and lack of clarity, with lives in the balance, effective communication is a must in health care.

The above submission lends credence to Parker's (2003 p.99) view with regards to effective antenatal care and proactive management of pregnancy "that effective communication is needed for every proper management of antenatal care, as almost everyone in the health in the health care industry is an agent of communication whether the communication are verbal or non verbal, millions of messages are being passed. Effective communication requires the ability to understand and to be understood."

Interpersonal communication has been identified as an effective way of passing antenatal messages as its messages have always proved to be clear. Furthermore, the health care industry survives on collaborative communication efforts between the doctors, nurses, specialist, insurance companies and other individuals. Interpersonal communication is the glue that holds the industry together.

Commenting on the on the importance of the face to face communication during the antenatal care sessions Ann (2009 p.77) has this to say "antenatal care is basically interpersonal and creates a platform where expectant mothers benefits from this face to face situation. A situation that guarantees safety and relaxation is created and these expectant mothers asks questions, relay their experiences and challenges".

In addition, during antenatal sessions these expectant mothers are given opportunity to ask questions on areas that border them. Such questions are given immediate feedback or response. What this shows is that the problem of delayed feedback is to a very significant extent, reduced. This position is re-echoed in a study carried out by Uddin (2009 p. 34) He tried to find out the most effective way of passing antenatal messages to the rural women of Bangladesh and found that:

> 89% of pregnant women received antenatal care at least once from a trained or untrained provider, among these, only 12% had access to the television, 25% of the population had access

to the radio and 53% of the expectant mother received the antenatal messages through instructors who organized a local rally and programme for expectant mothers.

## METHOD

This study was designed as a survey. The area of study was Anambra State, South-East Nigeria. It comprises 21 local government areas made up of largely rural towns. The state also hosts a few towns which include Onitsha, Nnewi, Awka and Ekwulobia. The study population was married women within the childbearing ages in Anambra State. This group numbers 1,102,032, according to the data supplied by the National Primary Health Care Development Agency (NPHCDA, 2013). A sample of 400 was drawn from this population based on Taro Yamane's formula n= N/1+ [N $(e)^2$]. The sampling procedure was multi-stage technique. Data collection instrument was the questionnaire. The questionnaire comprised entirely close-ended questions. A set of questions were designed to relate to particular research questions. The questionnaire had five sections: Section I had questions seeking the respondents' personal data; Section II had questions on access to antenatal care; section III had questions on understanding of antenatal communication; Section IV had questions on believability of antenatal communication; while Section V had questions on utilization of antenatal communication. To test the validity and reliability of the instrument, a pilot study was conducted using 20 respondents randomly selected from the study population. All ambiguities noticed were cleared before the questionnaire was administered.

## RESULTS

A total of 400 copies of the questionnaire were distributed to the respondents. Out of this number, 394 representing 98.5% were recovered while 6 representing 1.5% were not recovered. This is shown in Table 1 below.

Table 2: *Response Rate*

| | **Frequency** | **Percentage** |
|---|---|---|
| Number Returned | 394 | 98.5% |
| Number Not Returned | 6 | 1.5% |
| **TOTAL** | **400** | **100%** |

Data were sought and found on the demographics of the respondents as follows: age bracket, highest educational qualification, occupation, residency and last pregnancy count.

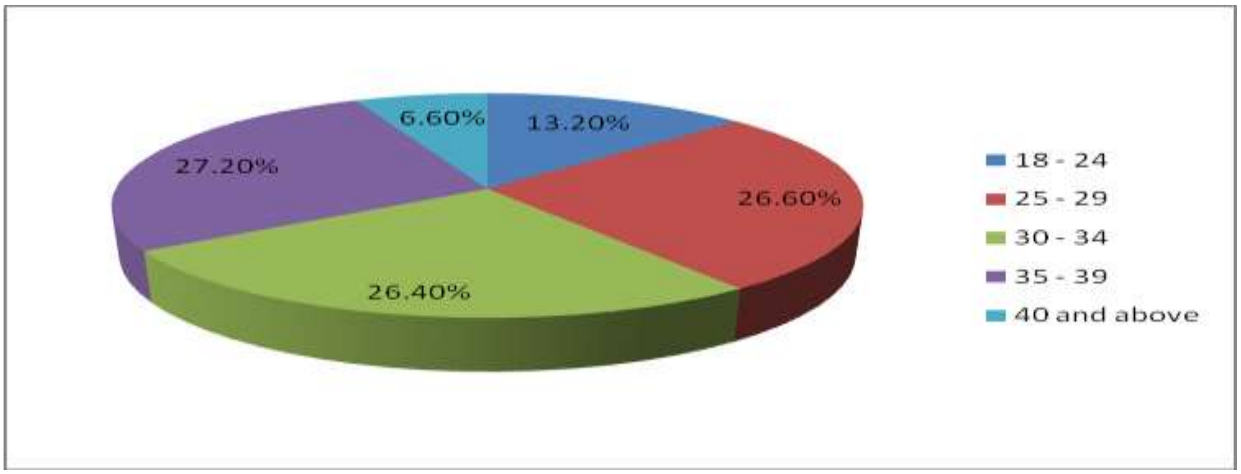


*Figure 1*: Age Bracket

Figure 1 shows that 13.2% of the respondents were 18 – 24 years, 26.6% were 25 – 29 years, 26.4% were 30 – 34, 27.2% were 35 – 39, while 6.6% were 40 and above.

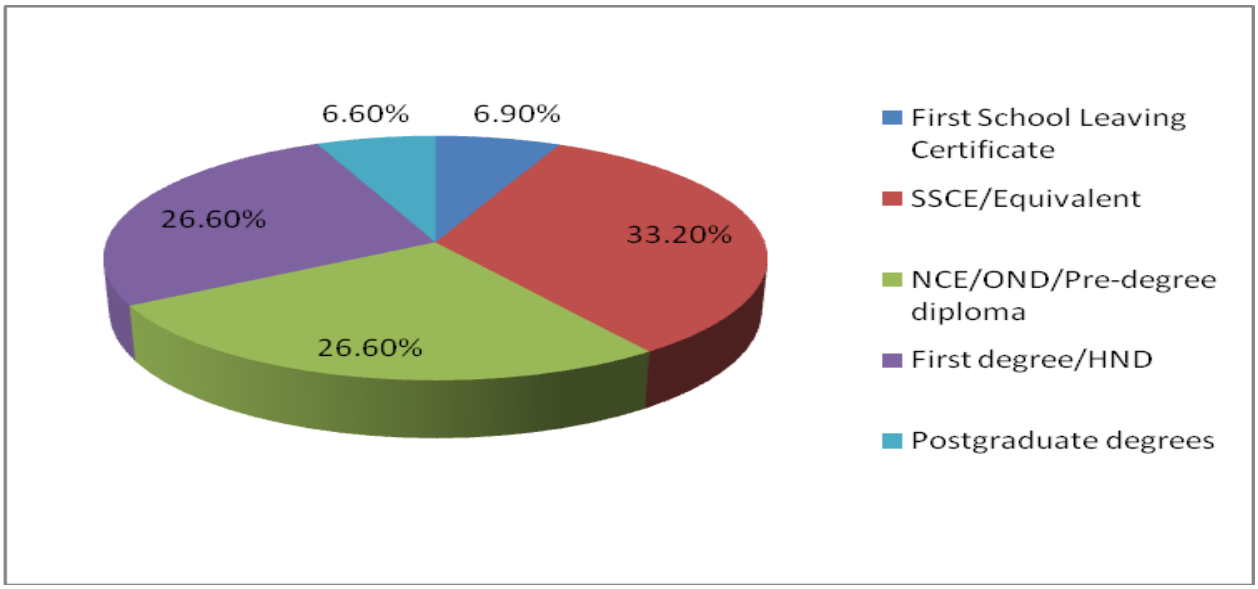


*Figure 2*: Educational Qualification

Figure 2 shows that 6.9% of the respondents had First School Leaving Certificate, 33.2% had SSCE/Equivalent, 26.6% had NCE/OND/Pre-degree Diploma, 26.6% had First degree/HND, while 6.6% had postgraduate degrees.

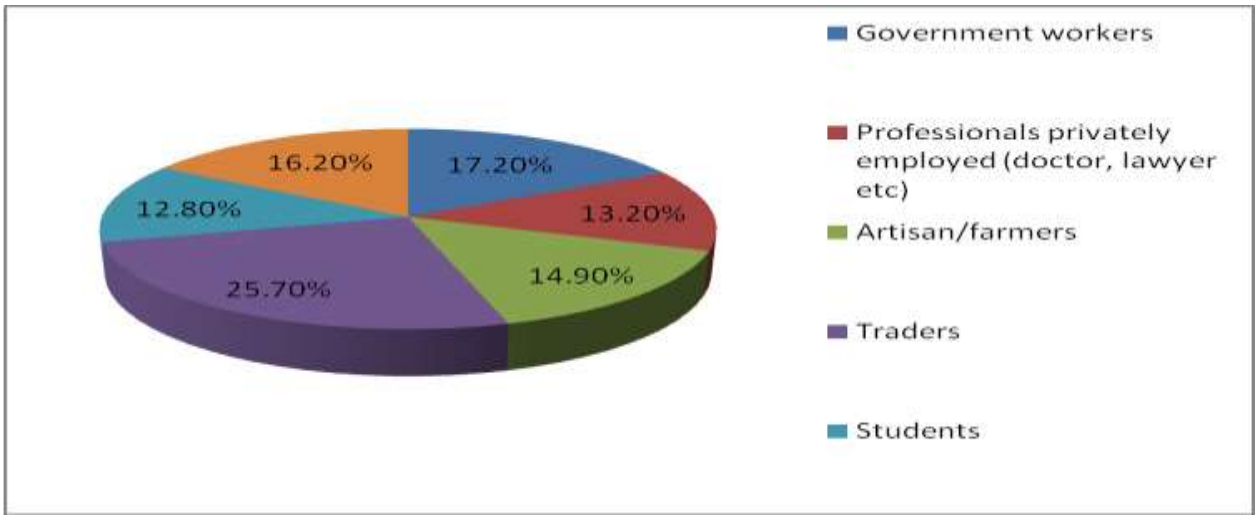


*Figure 3*: Occupation

Figure 3 shows that 17.2% of the respondents were government workers; 13.2% were privately employed professionals; 14.9% were artisans/farmers; 25.7% were traders; 12.8% were students; while 16.2% belonged to other professions.

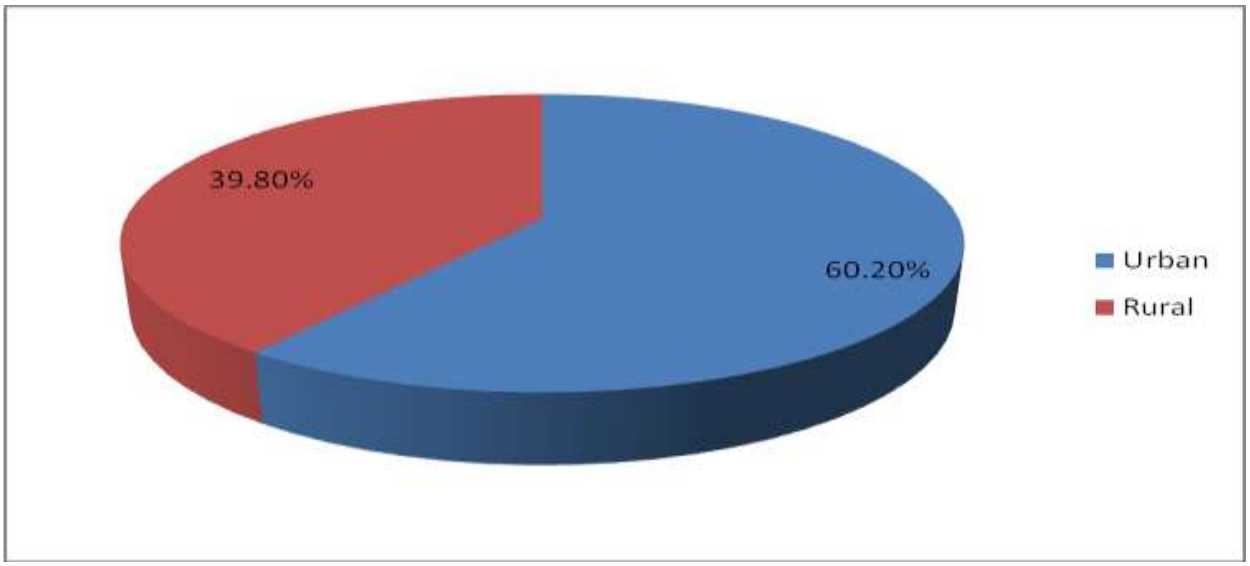


*Figure 4*: Residency

Data in Figure 4 show that while 60.2% of the respondents were urban dwellers, 39.8% were rural dwellers.

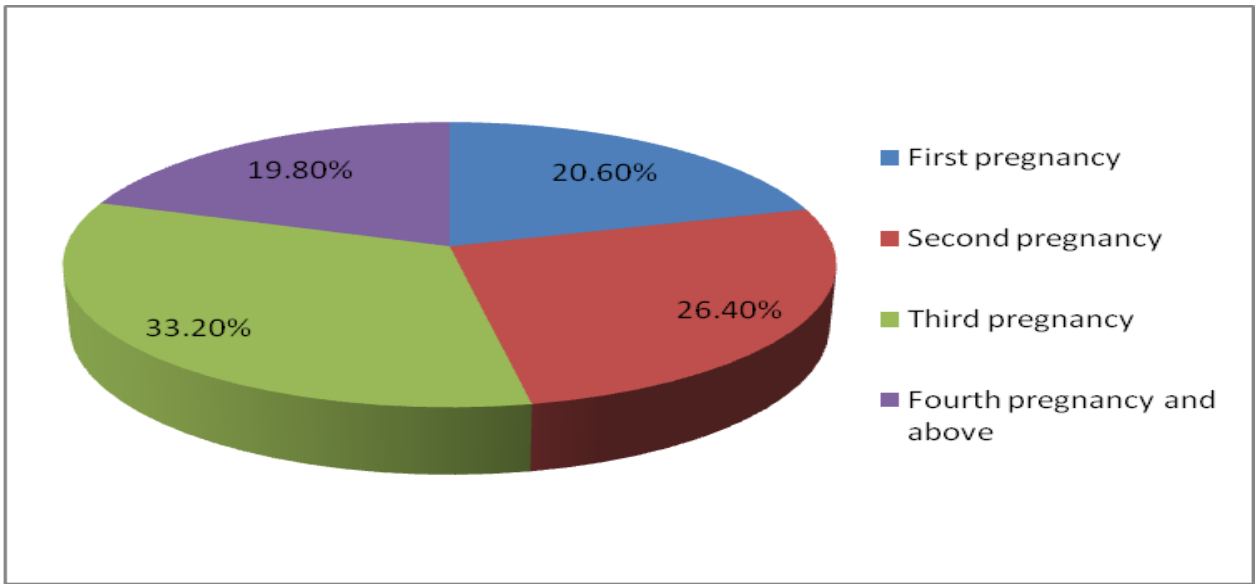


*Figure 5:* Last Pregnancy Count

Figure 5 shows that the last pregnancy of 20.6% of the respondents was their first, that of 26.4% was their second; for 33.2% it was their third, while for 19.8% it was either their fourth or above that.

**Access to Antenatal Care**

Table 2: *Accessibility of antenatal*

| | Frequency | Percent |
|---|---|---|
| Yes | 391 | 99% |
| No | 3 | 1% |
| **TOTAL** | **394** | **100%** |

Table 2 shows that about 99% of the respondents said they could access antenatal care.

Table 3:*Difficulty in Accessing of Antenatal*

| | Frequency | Percent |
|---|---|---|
| Yes | 79 | 20.1% |
| No | 315 | 79.9% |
| **TOTAL** | **394** | **100%** |

Table 3 shows that 20.1% of the respondents said they have difficulty accessing antenatal care as against 79.9% that answered otherwise.

Table 4: *Nature of Difficulty in Accessing Antenatal*

| | **Distance** | **Finance** | **Time constraint** | **Others** |
|---|---|---|---|---|
| Yes | 13.2%<br>N = 52 | 13.5%<br>N = 53 | 0%<br>N = 0 | 13.2%<br>N = 52 |
| No | 6.9%<br>N = 27 | 6.6%<br>N = 26 | 20.1%<br>N = 79 | 6.9%<br>N = 27 |
| No answer | 79.9%<br>N = 315 | 79.9%<br>N = 315 | 79.9%<br>N = 315 | 79.9%<br>N = 315 |
| **TOTAL** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** |

Data in Table 4 show that 13.2% of the respondents experience difficulty of distance in accessing antenatal care, 13.5% experience that of finance, 0% experience that of time constraint, while 13.2% experience other kinds of difficulty.

Table 5: *Understanding of Antenatal Communication*

| | STIs/HIV | Nutritional Need | Alcohol and Drug Abuse | Body and Environmental hygiene | Blood pressure and diabetes | Physical Exercise |
|---|---|---|---|---|---|---|
| Yes | 86.5%<br>N = 341 | 93.4%<br>N = 368 | 79.7%<br>N = 314 | 100%<br>N = 394 | 66.8%<br>N = 263 | 93.4%<br>N = 368 |
| No | 13.5%<br>N = 53 | 6.6%<br>N = 26 | 20.3%<br>N = 80 | 0%<br>N = 0 | 33.2%<br>N = 131 | 6.6%<br>N = 26 |
| **TOTAL** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** |

Table 5 shows that 86.5% of the respondents understand antenatal communication as it relates to STIs/HIV, 93.4% understand it as it relates to nutritional need, 79.7% understand it in regard to alcohol and drug abuse and 100% understand it in regard to body and environmental hygiene. Similarly, 66.8% understand antenatal communication as it relates to blood pressure and diabetes, while 93.4% understand it in the area of physical exercise.

However, to achieve a more precise picture, respondents who understood 5 to 6 aspects of antenatal communication were scored as having "high" understanding, those who understood 3 to 4 were classified as having "average" understanding, while those who understood 2 and below were classified as having "low" understanding. The obtained aggregate data are as below.

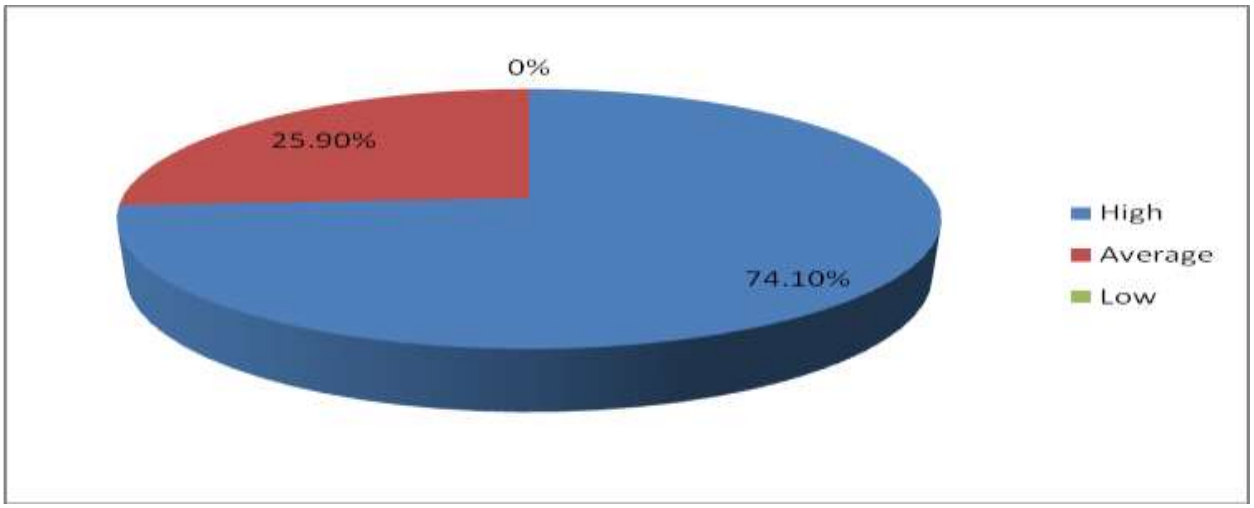


*Figure 6*: Understanding of Antenatal Communication

Figure 6 shows that 74.1% of the respondents have high understanding of antenatal communication, 25.9% have average understanding, while none has low understanding.

Table 6: *Believability of Antenatal Communication*

| | STIs/HIV | Nutritional Need | Alcohol and Drug Abuse | Body and Environmental hygiene | Blood pressure and diabetes | Physical Exercise |
|---|---|---|---|---|---|---|
| Yes | 93.7%<br>N = 369 | 60.2%<br>N = 237 | 99.7%<br>N = 393 | 99%<br>N = 390 | 88.5%<br>N = 341 | 100%<br>N = 394 |
| No | 6.3%<br>N = 25 | 39.8%<br>N = 157 | 0.3%<br>N = 1 | 4%<br>N = 1 | 13.5%<br>N = 53 | 0%<br>N = 100 |
| **TOTAL** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** | **100%<br>N = 394** |

Table 6 shows that 93.7% of the respondents believe antenatal communication as it relates STIs/HIV, 60.2% believe it as it relates to nutritional need, 99.7% believe it as it relates to alcohol and drug abuse, while 99% believe it as it relates to body and environmental hygiene. In the same vein, 88.5% believe it

However, to achieve a more precise picture, respondents who believe 5 to 6 aspects of antenatal communication were scored as having "high" belief, those who believe 3 to 4 were classified as having "average" belief, while those who believe 2 and below were classified as having "low" belief. The obtained aggregate data are as below.

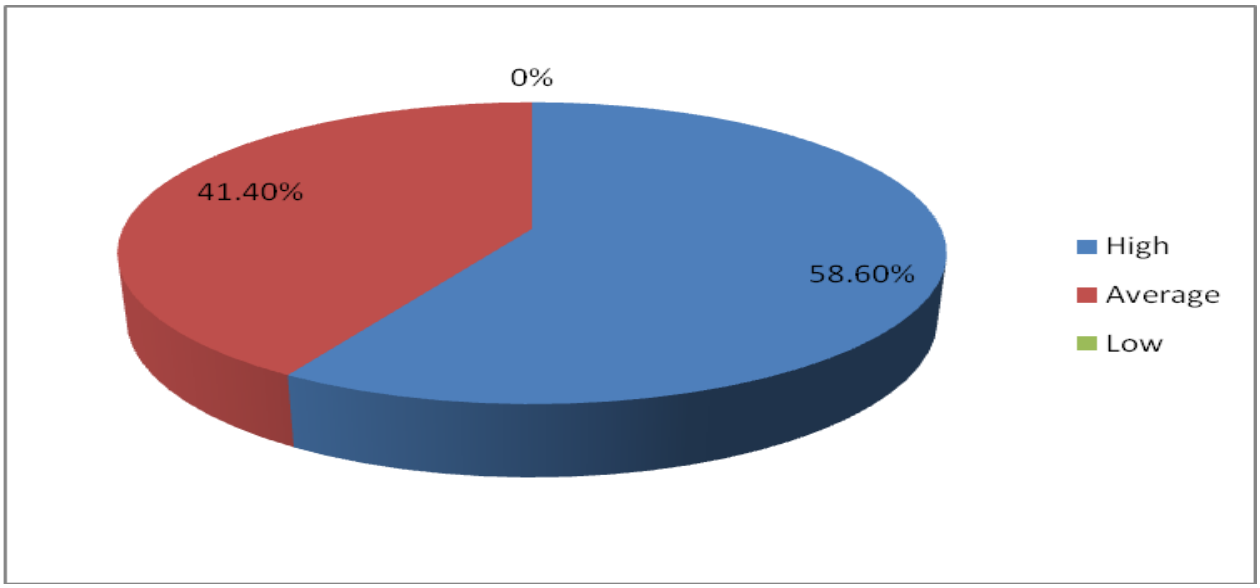


*Figure 7*: Believability of Antenatal Communication

Data in Figure 7 show that 58.6% of the respondents have high belief on antenatal communication, 41.4% have average belief while none has low belief.

Table 7: *Utilisation of Antenatal Communication*

| | STIs/HIV | Nutritional Need | Alcohol and Drug Abuse | Body and Environmental hygiene | Blood pressure and diabetes | Physical Exercise |
|---|---|---|---|---|---|---|
| Yes | 73.9% N = 291 | 66% N = 260 | 73.6% N = 290 | 100% N = 394 | 54.3% N = 214 | 61.2% N = 241 |
| No | 26.1% N = 103 | 34% N = 134 | 26.4% N = 104 | 0% N = 0 | 45.7% N = 180 | 38.8% N = 153 |
| **TOTAL** | **100% N = 394** | **100% N = 394** | **100% N = 394** | **100% N = 394** | **100% N = 394** | **100% N = 394** |

Table 7 shows that 73.9% of the respondents utilise antenatal communication as it relates to STIs/HIV, 66% utilise it as it relates to nutritional need, 73.6% utilise it as it relates to alcohol and drug abuse, while all utilise it as it relates to body and environmental hygiene. Similarly, 54.3% utilise it as it concerns blood pressure and diabetes, while 61.2% utilise it as it concerns physical exercise.

However, to achieve a more precise picture, respondents who utilise 5 to 6 aspects of antenatal communication were scored as having "high" utilisation, those who utilise 3 to 4 were classified as having "average" utilisation, while those who utilise 2 and below were classified as having "low" utilisation. The obtained aggregate data are as below.

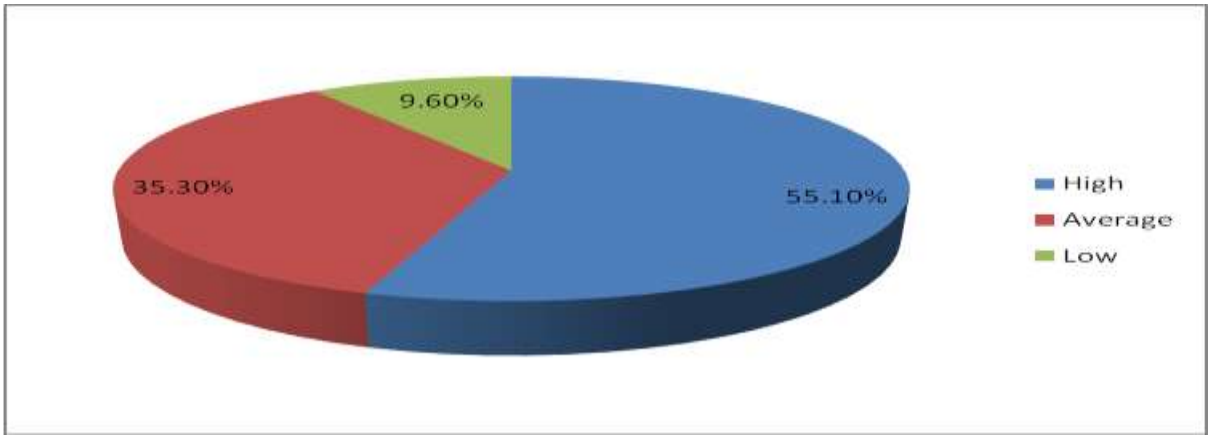


*Figure 8*: Utilization of Antenatal Communication

Data in Figure 8 indicate that 55.1% of the respondents have high utilisation of antenatal communication, 35.3% have average utilisation, while 9.6% have low utilisation.

Table 8: *Cross-Tabulation of Respondents' Highest Educational Qualification with Utilisation of Antenatal Communication*

| | Utilisation of Antenatal Communication | | | **TOTAL** |
|---|---|---|---|---|
| | High | Average | Low | |
| First School Leaving Certificate | 51.9%<br>N = 14 | 25.9%<br>N = 7 | 22.2%<br>N = 6 | **100%**<br>**N = 217** |
| SSCE/Equivalent | 42.0%<br>N = 55 | 53.4%<br>N = 70 | 4.6%<br>N = 6 | **100%**<br>**N = 217** |
| NCE/OND/Pre-degree diploma | 68.6%<br>N = 72 | 31.4%<br>N = 33 | .0%<br>N = 0 | **100%**<br>**N = 217** |
| First degree/HND | 60.0%<br>N = 63 | 21.9%<br>N = 23 | 18.1%<br>N = 19 | **100%**<br>**N = 217** |
| Postgraduate degrees | 55.1%<br>N = 13 | 35.3%<br>N = 6 | 9.6%<br>N = 7 | **100%**<br>**N = 217** |

$X^2$=61.818; df 8; p<.000

Table 8 shows that among respondents with First School Leaving Certificate, 51.9% have high utilization of antenatal communication, 25.9% have average utilization, while 22.2% have low utilization. Also, among those with SSCE/Equivalent, 42% have high utilization, 53.4% have average utilization, while 4.6% have low utilization. Similarly, for holders of NCE/OND/Pre-degree diploma, 60% have high utilization, 31.4% have average utilization, while none has low utilization. In the same vein, 60% of the respondents with First degree/HND have high utilization, 21.9% have average utilization, while 18.1% have low utilization. Finally, for those with postgraduate degrees, 55.1% have high utilization, 35.3% have average utilization, while 9.6% have low utilization. Generally, a look at the table shows that utilization of antenatal communication is fairly evenly distributed among the various educational qualifications and that this is statistically significant at .000 level.

Table 9: *Cross-Tabulation of Respondents' Residency with Utilisation of Antenatal Communication*

| | Utilisation of Antenatal Communication | | | **TOTAL** |
|---|---|---|---|---|
| | High | Average | Low | |
| Urban | 53.2%<br>N = 126 | 33.3%<br>N = 79 | 13.5%<br>N = 32 | **100%**<br>**N = 217** |
| Rural | 58.0%<br>N = 91 | 38.2%<br>N = 60 | 3.8%<br>N = 6 | **100%**<br>**N = 217** |

$X^2$=10.209; df 2; p<.006

Table 9 shows that among the respondents living in urban area, 53.2% have high utilisation of antenatal communication, 33.3% have average utilisation, while 13.5% have low utilisation. On the other hand, 58% of the respondents living in rural area have high antenatal communication utilisation, 38.2% have average utilisation, while 3.8% have low utilisation. Incidentally, the rural dwellers seem to have higher utilisation of antenatal communication than their urban counterparts and this is statistically significant at .006 level of significance.

Table 10: *Zero Order Correlation Matrix Showing Relationship Between Key Demographic Variables and Exposure to, Understanding, Believability, and Utilisation of Antenatal Communication*

| | Age | Educational Qualification | Residency | Believability of Antenatal Communication | Understanding of Antenatal Communication | Utilisation of Antenatal Communication |
|---|---|---|---|---|---|---|
| Age | 1 | .309** | .330** | .106* | .434** | -.239** |
| Educational Qualification | . | 1 | .181** | -.046 | .007 | -.013 |
| Residency | | | 1 | .116* | .194** | -.107* |
| Believability of Antenatal Communication | | | | 1 | .257** | .094 |
| Understanding of Antenatal Communication | | | | | 1 | -.294** |
| Utilisation of Antenatal Communication | | | | | | 1 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Data in Table 10 show that age correlates positively with educational qualification (r = .309), believability of antenatal communication (r = .106) and understanding of antenatal communication (r = .434). It then correlates negatively with utilisation of antenatal communication (r = -.239). Also, educational qualification correlates positively with residence (r = .181) while residence correlates positively with believability of antenatal communication (r = .116), understanding of antenatal communication (r = .194) and then negatively with utilisation of antenatal communication (r = -.107). Believability of antenatal communication correlates positively with understanding of antenatal communication (r = .257), while understanding of antenatal communication, on the other hand, correlates negatively with utilisation of antenatal communication (r = -.294).

**Analysis of the Research Questions**

**Research Question 1:** To what extent do expectant mothers in Anambra State access antenatal care?

To answer this research question, reference was made to Tables 2, 3 and 4 above. Table 2 shows that all the respondents said they have access to antenatal care. Table 3, on the other hand, shows that only a minority (20.1%) said they do this with difficulty particularly in the area of distance and finance. Based on the foregoing, the first research question was answered by

stating that there is high access to antenatal care among expectant mothers in Anambra State and that only a few of them have difficulty in doing so.

**Research Question 2:** To what extent do expectant mothers in Anambra State understand antenatal communication?

To answer this research question, reference was made to Table 5 and Figure 6 above. Data in Table 5 shows that the respondents have high understanding of antenatal communication in all its aspects - STIs/HIV, nutritional need, alcohol and drug abuse, body and environmental hygiene, blood pressure and diabetes, and physical exercise. Figure 6 then shows that cumulatively, majority of the respondents (74.1%) have high understanding of antenatal communication. Based on these, the second research question is answered by admitting that expectant mothers in Anambra State have a high understanding of antenatal communication in all relevant aspects.

**Research Question 3:** To what extent do the mothers utilize the information they receive at antenatal care?

To answer this research question the researcher referred to Table 6 and Figure 7 above. Data in Table 6 indicate that there is high believability of antenatal communication among the respondents in all the dimensions of it - STIs/HIV, nutritional need, alcohol and drug abuse, body and environmental hygiene, blood pressure and diabetes, and physical exercise. Similarly, Figure 7 shows that almost 60% of the respondents have high believability on antenatal communication while more than 41% have average believability. Consequently, the third research question is answered by stating that there is considerable belief of antenatal communication among expectant mothers in Anambra State.

**Research Question 4:** To what extent do the mothers utilize the information they receive at antenatal care?

To answer this research question, reference was made to Table 7 and Figure 8. Data in Table 7 show that generally the respondents have considerable utilisation of antenatal communication in all relevant aspects, i.e. STIs/HIV, nutritional need, alcohol and drug abuse, body and environmental hygiene, blood pressure and diabetes, and physical exercise. Similarly, Figure 8 shows that more than half of the respondents have high utilisation while more than 35% have average utilisation. Consequently, the fourth research question is answered by stating that there is adequate utilisation of antenatal communication among expectant mothers in Anambra State.

**Testing the Hypotheses**

$H_1$. There will be correlation between educational level of expectant mothers and their utilisation of antenatal communication.

$H_0$. There will be no correlation between educational level of expectant mothers and their utilisation of antenatal communication.

In testing this hypothesis, reference is made to Table 10. Data in the table show that there is no correlation (positive or negative) between the respondents' highest educational qualification and their utilisation of antenatal communication. Based on this, the researcher failed to reject the null hypothesis and accepting that there will be no correlation between educational level of expectant mothers and their utilisation of antenatal communication.

$H_2$. There will be correlation between rural/urban residency of expectant mothers and their utilisation of antenatal communication.

$H_0$. There will be no correlation between rural/urban residency of expectant mothers and their utilisation of antenatal communication.

Again data in Table 10 were relied on for testing this hypothesis. The table shows that there is negative correlation between the respondents' residency and their utilization of antenatal communication. Based on this, the researcher rejected the null hypothesis and accepted that there will be correlation between rural/urban residency of expectant mothers and their utilization of antenatal communication.

## CONCLUSION

The findings of this study lead to a number of conclusions. First, there appears to be a strong culture of awareness of and positive attitude to antenatal care among expectant mothers in Anambra State. Second, interpersonal communication – as the platform for conveying antenatal message – appears to have proved effective in inducing understanding, believability and utilization. While the efficiency of interpersonal communication (and its strengths vis-à-vis the mass media) is a widely accepted thesis in scholarship circle (Bittner, 1989, p.13; Baran, 2010, p.198), the assumption made here would, nonetheless, require further validation through further studies that would control extraneous variables that could have been of influence here.

## RECOMMENDATIONS

This study makes the following recommendations:

1. Efforts should be intensified towards increasing accessibility of antenatal care in rural areas. Though the study found no correlation between rural/urban dichotomy and utilization of antenatal communication, the researcher observed that difficulty in accessing antenatal care was more among the rural women than among their urban counterparts. By making more primary healthcare centres available at subsidized rates to the rural dwellers, the difficulty of distance and finance would be minimised.

2. More effort should be made towards more utilisation of interpersonal communication in other areas of health education with the view to exploring its strengths towards the overall wellbeing of the society. Thus, health campaigns like polio immunization, malaria prevention and HIV/AIDS control should utilize more interpersonal channels for better effectiveness.

3. This research should be repeated with the view to improving on its limitations. Hence, the area of study could be expanded to include other states other than Anambra and the sample accordingly increased. Other variables could equally be integrated to reflect areas not covered by the present study.

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