KNOWLEDGE AND ATTITUDE OF PREGNANT WOMEN TOWARDS
ANTENATAL SERVICES IN NSUKKA LOCAL GOVERNMENT AREA
OF ENUGU STATE, NIGERIA

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ABSTRACT
The purpose of this study was to ascertain the knowledge and attitude of pregnant
women towards antenatal services in Nsukka LGA of Enugu State. This study
adopted the descriptive survey design. Specifically, five objectives with five
corresponding research questions were formulated to guide the study. A multi-
stage sampling technique of balloting without replacement was used to select 259
pregnant women in Nsukka LGA of Enugu State. Data were collected using
structured questionnaire and analysis was done using simple percentage and mean
responses. Results showed that pregnant women had moderate level of knowledge
of concept of antenatal services. Pregnant women from urban area had high level
of knowledge of the concept of antenatal services while their counterpart from
the rural setting had moderate level of knowledge. Also, it was realized that
pregnant women with secondary and tertiary education had positive attitude while
those with no formal and primary education had negative attitude to antenatal
services, and pregnant women from both urban and rural settings had positive
attitude. Based on the findings, the study recommends among other that all health
educators and other health professionals should adopt better educational strategies
to improve the knowledge and utilization of antenatal services among pregnant
women.

Keywords: Knowledge, attitude, and antenatal services

INTRODUCTION
Antenatal services comprise complete health supervising of the pregnant women in
order to maintain, protect and promote health and well being of the mother and the
fetus (Ojo, 2004). These services, according to Ojo (2004), are rendered to a pregnant
woman at monthly intervals, to 28 weeks of gestation, then fortnightly until 36 weeks
and finally weekly visit until the birth of the baby. Similarly, Adesokan (2010)
describes antenatal services as the attention, education, supervision and treatment
given to the pregnant women from the time conception is confirmed until the
beginning of labour, in order to ensure safe pregnancy, labour and puerperium.
Qualitative antenatal services are care given to a pregnant woman by a stilled or
trained health provider to promote the health and survival of mother and child
(Adesokan, 2010). The focused antenatal services refer to minimum number of four
antenatal clinic visits, each of which has specific items of client assessment, education
and care to ensure early detection and prompt management of complication
(Adesokan, 2010). Obionu (2006) postulates some justification for focused antenatal
services. These include that all pregnant women are at risk of developing
complication, that more attention are given to individuals in the high risk group but the risk approach to antenatal services are no longer considered effective in detecting which woman will have problems and that antenatal services increase the likelihood that a skilled healthcare providers will be present at birth. Functions of good antenatal services according to Lucas and Gilles (2003) are immunizing mothers with anti-tetanus toxiod; regular examination from midwives or health instructors, measuring of weight and height and continued monitoring of weight, physical examination by a doctor at least one or two times during the pregnancy especially where there are no existing complications. They maintained that some of these services that make a good and functional antenatal must be available to pregnant women to enable they have access to them.

Knowledge has been variously defined. Hornby (2006) describes knowledge as the information, understanding and skills that one gains through education or experience. Knowledge is critical to man's quality of life because everything that is done depends on knowledge. WHO Report (1996) asserts that knowledge is prerequisite for any health action. The report maintains that many of the ailments people suffer from are to large extent self inflicted by anti-health practices due to lack of knowledge. Knowledge, according to Agbo (2003), is the sum of conceptions, views and propositions which have been established and tested. In the context of this study, knowledge refers to the act of having adequate information and understanding of the concept of antenatal services. This knowledge can be obtained through health education, electronic media, prints and health education programmes.

It could be in realization of the above assertion that Obionu (2006) and Nzeako (2007) maintained that knowledge of pregnant mothers is a major factor in determining the extent of utilization of antenatal services. According to them, the educational status of pregnant mothers is an influencing determinant in the effective utilization of maternal and child health (MCH) services. Igboekwe (2008) indicated that urban and rural locations have great impact on the utilization of antenatal services. Expectant mothers in the urban area utilize antenatal services better than their counterparts in the rural area who have the problems of accessibility to MCH services; some pregnant mothers in the rural area may have basic knowledge of the importance of antenatal services but due to problems of accessibility to health facilities will hinder them from such services (Igboekwe, 2008).

Studies conducted in Nigeria and Ghana by UNICEF (2000) showed that educated expectant mothers access antenatal services more than their uneducated counterparts. Katjiuanje and Titus (2001) noted that the proportion of deaths associated with pregnant related diseases appeared to be higher among uneducated pregnant women, and the high rate is associated with non-utilization of antenatal services by this group of women. Ideyi (2002) agreed that education of mothers have tremendous effect on utilization of MCH services by pregnant women. Also, inadequate knowledge concerning health related matters usually lead to negative attitude towards the health issue (Ideyi, 2002). Attitude is person's affective feelings
of like and dislike. Attitude emerges out of personal experience and can be positive or negative. It is positive when a person develops a strong attraction of like for the situation, objects or other persons or groups while it is negative when the person develops a strong dislike for situation, objects, persons, group or any other identifiable aspects of our environment. Odunukwe (2002) states that attitude is our strong like and dislike for situation, objects, persons or any other identifiable aspects of our environment.

According to Odunukwe (2002), attitude is how reality is perceived by the individual or group. It is learned that attitude towards an individual, group or object develops with time upon when, where and how it all happens (Odunukwe, 2002). Park (2009) views attitude as acquired characteristics of an individual which predisposes him or her to respond in some preferential manner. In the present context, attitude refers to expectant mother’s affective feelings of like and dislike to antenatal services. Thus, the pregnant women’s personal experience to antenatal services can be positive or negative. Ojo (2004) asserts that the level of education has a significant influence on the attitude of pregnant women to antenatal services. Pregnant women with basic education usually manifest positive attitude (Ojo, 2004).

Location as indicated by Igbokwe (2008) is an environmental factor which could be associated with the attitude of childbearing mothers (CBMs) towards health programmes. He further argues that CBMs in the urban areas tend to manifest positive attitude towards the utilization of MCH services more than their rural counterparts. According to Igbokwe (2008), the extended family system still predominate in the rural areas and thus affecting them in the utilization of MCH services with resultant manifestation of negative attitude to health programmes. However, Myles (2009) has asserted that urban or rural location has no impact on the attitudes of CBMs to health programmes (Myles, 2009).

CBMs in any location that internalizes the concepts of health programmes will manifest positive behaviour to such health issue, therefore, knowledge appears to be very paramount in the attitude of people to any health related programme (Myles, 2009). This could be perhaps why Mauksch (1981) has stated that knowledge is essential to determine both the extent and quality of information that persons have about a particular issue or behaviour before a change can be effectively initiated. Knowledge and attitude, according to Okun (1996) are means to practice. Incidentally, no report of evaluative studies or basic surveys exist that focused on knowledge of and attitude to antenatal services among pregnant women in Nsukka LGA of Enugu State. Knowledge of and attitude to antenatal services among pregnant women as applied to this study describe the information, understanding and the feelings of like and dislike of these pregnant women to antenatal services.

Nsukka LGA is predominantly urban (University of Nigeria, Nsukka exclusive) and its suburbs that have rural features. The inhabitants of the area are mainly civil servants, probably due to the siting of the University of Nigeria in the area. However, there are few farmers and petty traders. Nevertheless, there are some
literate business men and women while the rest are predominantly teachers with majority of them belonging to CBMs. However, majority of the people live in the rural areas with poor socio-economic characteristics and with common cultural values, beliefs and traditional norms.

Regrettably, as laudable as safe motherhood is, which antenatal services is an integral part of, pregnant women in Nigeria appear to portray observable ignorance and lukewarm attitude to antenatal services (UNICEF, 2005). This bizarre phenomenon has resulted to poor knowledge of and attitude to antenatal services among pregnant women. It is therefore not surprising that UNICEF (2005) reports that out of the estimated 27 million reproductive age of mothers in Nigeria, one in thirteen die due to pregnant-related disease which antenatal services could have prevented. This necessitates the present study designed to determine the knowledge of, and attitude to antenatal services among pregnant women in Nsukka LGA of Enugu State. In order to accomplish this task, five study questions were formulated thus:

1. What is the knowledge of concept of antenatal services among pregnant women in Nsukka LGA?
2. What is the knowledge of concept of antenatal services among pregnant women according to location in Nsukka LGA?
3. What is the attitude to antenatal services among pregnant women in Nsukka LGA?
4. What is the attitude to antenatal services among pregnant women according to level of education in Nsukka LGA?
5. What is the attitude to antenatal services among pregnant women according to location in Nsukka LGA?

METHOD

The survey design was adopted for this study. This method was chosen because it is concerned with the present and tries to determine the status of the phenomena under study. Asogwa and Igbokwe (2010) used the design to determine the competencies necessary for effective consumptions of goods and services in Enugu State. Therefore, the design is considered appropriate for this study. The population for this study consisted of all pregnant women who attended antenatal services in eight functional health facilities in Nsukka LGA. According to monitoring and evaluation (M&E) unit of the Health Department, Nsukka LGA, there are about 2627 expectant mothers who attended antenatal services in the area between January and November 2011. The simple random sampling technique of balloting without replacement was utilized to select 259 expectant mothers, using 10 per cent from every health facility in Nsukka LGA. This is in line with Ejifuagha (1998) principle who stated that when a population is in thousands 10 per cent of such population can be used as a sample size. This technique was a success through the co-operation of four research assistants that are
midwives in the Local Government Area. The structured questionnaire was the instrument used for data collection. The questionnaire was administered to the respondents with the help of the four research assistants. Two days were set aside for the exercise. Completed copies of the questionnaire were collected on the spot on each day. At the end of the exercise, it was discovered that five copies of the questionnaire were badly completed and were rejected leaving a total of 254 usable copies for analysis. Percentages using modified Okafor's (1997) criteria for describing level of knowledge were adopted.

In this regard, a population of less than 20% was considered very 'low', 21-39% 'low', 40-59% 'moderate'; 60-80% 'high' and above 80% 'very high' level of knowledge about antenatal services. The Likert attitude measurement scale modified by Osuka (2005), and Nworgu (2006) on a four point scale was also used to answer questions on the knowledge and attitude of pregnant women to antenatal services. In the positive statements, 4, 3, 2 and 1 were assigned to strongly agree, agree, disagree and strongly disagree with 2.5 as criterion mean point. The total percentage was used in the interpretation of the responses, while the grand mean was used for table interpretation of the responses. The results were presented on tables according to the research questions.

**RESULTS AND DISCUSSION**

**Table 1:** Knowledge of Concept of Antenatal Services among Pregnant women (N=254)

<table>
<thead>
<tr>
<th>Items</th>
<th>freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care given to expectant mothers during blood transfusion</td>
<td>32</td>
<td>12.5</td>
</tr>
<tr>
<td>Services provided to pregnant women from the time of conception,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>through labour and puerperium</td>
<td>142</td>
<td>55.9</td>
</tr>
<tr>
<td>Services given to pregnant women when their husband divorce them</td>
<td>26</td>
<td>10.2</td>
</tr>
<tr>
<td>Services provided to pregnant women when they have complications</td>
<td>21</td>
<td>8.2</td>
</tr>
<tr>
<td>associated with delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services provided to pregnant women when their health needs and</td>
<td>33</td>
<td>12.9</td>
</tr>
<tr>
<td>problems are not met</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Survey, 2011*

**Table 2:** Knowledge of Antenatal Services by Pregnant women according to Location (N=254)

<table>
<thead>
<tr>
<th>Items</th>
<th>Urban (n=142)</th>
<th>%</th>
<th>Rural (n=112)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care given to pregnant women during blood transfusion</td>
<td>08</td>
<td>56</td>
<td>18</td>
<td>16.0</td>
</tr>
<tr>
<td>Services provided to pregnant women from time of conception,</td>
<td>105</td>
<td>73.9</td>
<td>52</td>
<td>46.4</td>
</tr>
<tr>
<td>through labour and puerperium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services given to pregnant women when their husband divorce them</td>
<td>14</td>
<td>9.8</td>
<td>19</td>
<td>16.9</td>
</tr>
<tr>
<td>Services provided to pregnant women when they have complications</td>
<td>11</td>
<td>7.7</td>
<td>17</td>
<td>15.1</td>
</tr>
<tr>
<td>associated with delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services provided to pregnant women when their health needs and</td>
<td>04</td>
<td>2.8</td>
<td>06</td>
<td>5.3</td>
</tr>
<tr>
<td>problems are not met</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Survey, 2011*
Table 3: Attitude to Antenatal Services by Pregnant women (N=254)

<table>
<thead>
<tr>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending antenatal clinics as and when due are very essential aspect of safe motherhood initiative</td>
<td>592</td>
<td>150</td>
<td>76</td>
<td>18</td>
<td>836</td>
<td>3.2</td>
</tr>
<tr>
<td>Regular antenatal services prevent complication during labour</td>
<td>480</td>
<td>156</td>
<td>84</td>
<td>40</td>
<td>760</td>
<td>2.9</td>
</tr>
<tr>
<td>Regular antenatal services provide good marital relationship among couples</td>
<td>176</td>
<td>120</td>
<td>36</td>
<td>152</td>
<td>484</td>
<td>1.9</td>
</tr>
<tr>
<td>Regular antenatal services guarantee sexual satisfaction during pregnancy</td>
<td>584</td>
<td>144</td>
<td>84</td>
<td>18</td>
<td>830</td>
<td>3.2</td>
</tr>
<tr>
<td>Attending antenatal clinics as and when due assure general well-being of pregnant women</td>
<td>552</td>
<td>156</td>
<td>24</td>
<td>52</td>
<td>784</td>
<td>3.0</td>
</tr>
<tr>
<td>Grand mean (x)</td>
<td>2.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey, 2011

Table 4: Attitude to Antenatal Services by Pregnant women according to Level of Education (N=254)

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending antenatal clinics as and when due are very essential aspect of safe motherhood initiative</td>
<td>2.3</td>
<td>2.6</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Regular antenatal services prevent complication during labour</td>
<td>2.0</td>
<td>2.4</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Regular antenatal services provide good marital relationship among couples</td>
<td>2.6</td>
<td>2.1</td>
<td>2.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Regular antenatal services guarantee sexual satisfaction during pregnancy</td>
<td>2.7</td>
<td>2.3</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Attending antenatal clinics as and when due assure general well-being of pregnant women</td>
<td>2.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Grand mean</td>
<td>2.3</td>
<td>2.4</td>
<td>2.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: Survey, 2011. Note: 1 No formal Education, 2 Primary Ed, 3 Secondary Ed and 4 Tertiary Ed

Table 5: Attitude to Antenatal Services by Pregnant women according to location (n=254)

<table>
<thead>
<tr>
<th>Items</th>
<th>Urban (n=142) x</th>
<th>Rural (n=112) x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending antenatal clinics as and when due are very essential aspect of safe motherhood initiative</td>
<td>3.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Regular antenatal services prevent complication during labour</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Regular antenatal services provide good marital relationship among couples</td>
<td>2.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Regular antenatal services guarantee sexual satisfaction during pregnancy</td>
<td>2.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Attending antenatal clinics as and when due assure general well-being of pregnant women</td>
<td>3.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Grand mean</td>
<td>2.8</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Survey, 2011

Out of the total number of 254 expectant mothers whose responses were analyzed, 20.4% had no formal education; 26.7% had primary education; 37.7% and 14.9% had tertiary education. Also 55.9% of the respondents were from the urban setting while 44.2% respondents were from the rural setting of Nsukka LGA. Table 1 shows that 55.9% of pregnant women had moderate level of knowledge of antenatal services in the area of study. Table 2 shows that 73.9% of pregnant women from the urban setting had high level of knowledge of antenatal services 46.4% had moderate level of knowledge from rural setting. Table 3 indicates that attitude of pregnant women towards antenatal services was positive. Table 4 reveals that attitude...
of pregnant women with secondary school and tertiary education was positive while pregnant women with no formal education and primary educations was negative respectively. Table 5 shows that pregnant women in the urban and rural settings had positive attitude. Consistent with expectation, there was moderate level of knowledge 55.9% of antenatal services among pregnant women as shown on table 1. The result was expected because emperical evidence has shown that greater percentage of pregnant women are exposed to one form of education or another in the area of study. This finding was in line with the assertion of Obionu (2006) and Nzeako (2007) who stated that knowledge of antenatal services among pregnant women is a major factor in determining the extent of utilization of antenatal services. They maintained that knowledge is critical to man’s quality of life because everything one does depend on knowledge. This, however, could be the reason WHO Report (1996) has asserted that knowledge is prerequisite for any health action. The report maintains that many of the ailments people suffer from are to large extent as a result of inadequate knowledge of health practices.

The findings on table 2 indicated that urban pregnant women had high level of knowledge 73.9% of concept of antenatal services while the rural pregnant mothers had moderate level of knowledge 46.4% of antenatal services. The result was plausible. The implication of this finding is that urban pregnant women were knowledgeable of antenatal services to compare with their rural counterparts. This result agrees with Igbokwe (2004) who reports that location has great impact on the utilization of antenatal services. Pregnant women in the urban areas are knowledgeable of the concept of antenatal services and therefore utilize the services more than their counter-parts in the rural settings (Igbokwe, 2004). He argued that some pregnant mothers in the rural areas may have basic knowledge of the concept of antenatal services but due to problems of accessibility may hinder them from demonstrating such knowledge (Igbokwe, 2004).

The findings on table 3 showed that the attitude to antenatal services by pregnant women was positive. The result is very interesting as it demonstrated the characteristics of pregnant women in the area of study. The result was in line with the assertion of Odunukwe (2002) who stated that attitude is our strong like and dislike for situation and how reality is perceived by the individual. It could be in realization of the above assertion that Ojo (2004) who states that the level of education of an individual has a significant influence on the attitude of such individual. Pregnant mothers with basic education on certain health issue manifest positive attitude to such health issue (Ojo, 2004).

Pregnant mothers with secondary and tertiary education qualification had positive attitude to antenatal services while the attitude to antenatal services by pregnant women with no formal education and primary education showed negative as indicated on Table 4. The findings were not expected in view of the available speculation by UNICEF (2000) that educated pregnant women manifest positive attitude to antenatal services more than their uneducated counterparts. Katijuanjo
and Titus (2001) agreed with the above assertion as they stated that the proportion of deaths associated with pregnant related diseases appeared to be high among uneducated pregnant women. They associated the high deaths due to negative attitude to antenatal services by pregnant women. The findings on table 5 reveal that both urban and rural pregnant women had positive attitude to antenatal services. The result was plausible and agrees with the assertion of Myles (2009) who states that urban or rural location has no impact on the attitude of CBMs towards health programmes. According to her, CBM in any location that internalizes the concept of any health programme will manifest positive behaviour to such health issue. She therefore maintained towards that knowledge appear to be very paramount in the attitude of people to any health related programme. This could be perhaps why Mausksch (1981) stated that knowledge is essential to determine both the extent and quality of information that persons have about a particular issue or behaviour before a change can be effectively initiated.

CONCLUSION AND RECOMMENDATIONS

The study was conceptualized as a public health study which will be useful to all health educators and other health professionals in the field of research on issues that concern pregnant women and antenatal services. The study like many other studies in Nigeria with its rural characteristics found that the knowledge and attitude to antenatal services among pregnant women in Nsukka LGA of Enugu State call for review. Therefore, health education is a strong force which could be utilized by members of the society for the solution of its social, moral, economics and political problems. The process of educating the individual or community on the prevailing health problems and methods of controlling them through organized health education programme. Antenatal services are considered in this study as challenges for health educators. Therefore, health education is considered by many as the first and most important component of primary health care through which pregnant women should develop the necessary health knowledge and attitude towards health related problems.

Knowledge of, and attitude to antenatal services among pregnant women appear to be very vital and critical for effective utilization of MCH services by all members of the society. Therefore, there is urgent need for all health educators and other health professionals to ensure that this group of women benefit maximally through the utilization of MCH services for proper improvement of health care delivery system in the society. It was observed that the concept of knowledge of antenatal services among pregnant women in the area of study showed moderate level of knowledge. Pregnant women in the urban areas showed high level of knowledge of concept of antenatal services more than their rural counterparts who indicated moderate level of knowledge. Pregnant women in the area of study with secondary and tertiary education had positive attitude while pregnant mothers with no formal education and primary education had negative attitude. Pregnant women
in both urban and rural settings had positive attitude to antenatal services. Based on the findings, the following recommendations are made: Continuing education programmes, seminars, and workshops should be organized for pregnant mothers to improve their level of knowledge on the concept of antenatal services. All health educators, institutions and other stakeholders in healthcare delivery system should design better educational strategies to increase level of knowledge of pregnant women on antenatal services. All community health practitioners, public health educators and social workers should devise appropriate technique to modify the attitude of some pregnant women on the concept of antenatal services.

REFERENCES