

Knowledge of Antenatal Care Services among Pregnant Women attending Healthcare Facilities in Uzo-Uwani Local Government Area, Enugu State

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Abstract

The study assessed the knowledge of antenatal care services among pregnant women attending healthcare facilities in Uzo-Uwani LGA, Enugu State. Three specific objectives with corresponding research questions and one null hypothesis guided the study. Cross-sectional research design was adopted for the study. The population for the study consisted of 4200 registered pregnant women attending the 41 accredited healthcare facilities in Uzo-uwani LGA, Enugu State between January and December, 2020, and a total of 420 pregnant women were studied using two-stage sampling procedure. A researcher structured questionnaire with internal consistency of .83 was used for data collection. Mean, frequencies, and percentages were used to answer research questions while Chi-square was used to verify the hypotheses at .05 level of significance. The study revealed that greater proportion (88.5%) of pregnant women possessed knowledge of ANC services in Uzo-Uwani LGA, Enugu State. There was no significant difference in the knowledge of ANC services among pregnant women attending health facilities in Uzo-Uwani LGA, Enugu State based on age, $X^2(3) = 2.996$; $p = 0.39$. Therefore, there is need for ANC Services-Based Educational Programme to be developed by the government to sustain knowledge regarding ANC and other services for women especially those within childbearing age.

Keywords: Knowledge, Ante-natal, Pregnant women, Healthcare facilities.

Introduction

Antenatal care (ANC) service is a recognized public health initiative, concerned with improving maternal and neonatal health. The essence of ANC services is to reduce the incidence rates of maternal and neonatal morbidities and mortalities to zero per cent. Statistically, the United Nations Children's Fund (UNICEF, 2019) reported that approximately ninety per cent of pregnant women access antenatal care from qualified professionals. In developing regions, a statement by the World Health Organization (WHO, 2011) showed that 40 percent of women in low-income countries visit antenatal units. Although a minimum of four antenatal visits are recommended, research showed that only about 50 per cent of pregnant women receive adequate ANC services in developing countries (Finlayson, 2013).

Despite a worldwide focus on the need to improve maternal health, inadequate knowledge evident in poor ANC service utilization remains a significant problem in low-income countries including Nigeria (UNICEF, 2019). Fagbamigba and Idemudia (2015) observed that in Nigeria, the recommended minimum of four times ANC attendance is underutilized as report showed that over one third of pregnant women do not attend ANC services. In addition, Onasoga, Olayinka, Afolayan and Bukola (2012) opined that the rate of ANC services underuse can be attributable to some demographic factors which vary among states including Enugu.

Antenatal care services are help and directions given to pregnant women by the skilled health workers on care and management of their pregnancies. Chen, Yang, Wen and Walker (2007), opined that it includes care and support in obstetric emergency, it is a way of preparing women physically, mentally, and even logistically for childbirth. Antenatal care services could be affected by many factors. In view of the above facts Okeibunor, Onyeneho and Okonofua (2010), opined that antenatal practice is affected by lack of access to skilled and use of unskilled birth attendants in some parts of the state. The authors noted that the situation is further aggravated by poverty and ignorance and is believed to be the case in other rural and urban communities in Enugu State including Nsukka. Health promotion information like nutrition in pregnancy improves maternal knowledge which influences her utilization of ANC services.

Knowledge enhances positive attitude and practice. Knowledge refers to familiarity, awareness or understanding of something, such as facts, information, description or skills which is acquired, through experience or education. Adewoye et al. (2013) defined knowledge as the skills one gains through education and experience with the aim of helping the learner to learn strategies that will enable them think productively. Therefore, knowledge is the information, understanding and skills that one gains through education and experience. Contextually, knowledge refers to the act of having adequate information and understanding of ANC services and related concepts that enable the pregnant woman in Uzo-Uwani LGA to seek appropriate health care services. Status of knowledge is described as a way of rationalizing an agent's behavior (Lieto et al., 2018). Knowledge can be influenced by age, experience, repetition of information, and problem-based learning. Knowledge is important to man's quality of life because adoption of health promoting behaviors such as attendance of antenatal care services depend on the level of knowledge pregnant women possess (Onwurah & Nwimo, 2015). Adequate knowledge improves perception and high utilization of healthcare services such as antenatal care services.

A pregnant woman refers to a woman who has a developing foetus in the uterus. Roy et al. (2013) defined a pregnant woman as a person who is carrying an unborn baby in the womb from conception to parturition. Therefore, a pregnant woman needs supervision of a skilled health provider during pregnancy. Having a sufficient number of antenatal visits and receiving appropriate and timely care during pregnancy reduce the risks and ensure that pregnant women are adequately prepared for childbirth.

World Health Organization (WHO, 2016) has recommended a minimum level of care to be eight contacts throughout the pregnancy which emphasizes early ANC initiation in the first trimester of pregnancy that enables the identification of risk factors and early diagnosis of pregnancy complications like preterm delivery and appropriate management. However, many countries including Nigeria are still using the four visits model known as the Focus Antenatal Care (FANC). The WHO in Gupta et al. (2015) recommends that a woman without complications should have at least four antenatal visits which should take place during the first trimester. The four visits in the WHO's recommendation are such to be made to address specified components and at specific times (Kearns et al., 2015).

The components of antenatal care indicate the expected quality services to be received by the pregnant women. To assess the knowledge of antenatal care services in the present study, certain socio-demographic variables were studied. Tiruaynet and Muchie (2019), noted that socio-demographic variables such as maternal age and educational level influenced the level of knowledge of antenatal care services among pregnant women. Singh et al. (2014), observed that young maternal age (15-20) at first birth are associated with increased risks of poor health, social and educational outcomes and are more likely to utilize antenatal care services than older women of 30 years and above who may show lack of interest. Maternal education is another strong factor that may influence knowledge of ANC services. Level of education may be seen in four different dimensions; no formal education, primary, secondary and tertiary education.

Antenatal care services are specifically provided for the maintenance and promotion of health of mothers and unborn babies for the identification of high risk cases and appropriate management, prevention of pregnancy-related complications, reduction in maternal and neonatal mortality and morbidity Tiruaynet and Muchie (2019). The authors further opined that despite the benefits of ANC services, pregnant women are still having complications, poor health, increase maternal and infant morbidity and mortality, poor nutrition, hygiene and numerous cases of unplanned pregnancy. Consequently, the researcher finds it necessary to conduct the present study with the intention to assess knowledge of antenatal care services among pregnant women in Uzo-Uwani LGA of Enugu State as the findings may be used by public health educators in modifying health topics and improving their professional skills on varying concepts related to understanding of antenatal care services particularly by pregnant women.

Objectives of the Study

The purpose of the study was to investigate knowledge of antenatal care services among pregnant women attending health facilities in Uzo-Uwani Local Government Area, Enugu State. Specifically, the study sought to assess the:

1. proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State?
2. proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State based on age?
3. proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State based on level of education?

Research Questions

The following research questions were formulated and guided this study.

1. What is the proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State?
2. What is the proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State based on age?
3. What is the proportion of pregnant women who possessed knowledge of antenatal care services in Uzo-Uwani LGA, Enugu State based on level of education?

Hypotheses

1. There is no significant difference in the knowledge of ANC services among pregnant women attending health facilities in Uzo-Uwani LGA, Enugu State based on age ($p \leq 0.05$).

Materials and Methods

Design: To achieve the purpose of this study, the cross-sectional research design was adopted. A cross-sectional research design is a type of design that analyses data from a population, or a representative subset, at a specific point in time (Assegid et al., 2017).

Study Area: The study was conducted in Uzo- Uwani Local Government Area (LGA). The inhabitants of Uzo-Uwani LGA are predominantly farmers and civil servants. The indigenes are highly industrious, hardworking and are known for multiple childbirths. The knowledge of ANC services would improve the use of ANC thus improve quality of health of both the mother and unborn child and reduce maternal and neonatal morbidity and mortality rates in the LGA.

Population and Sample: The population for the study consisted of all the registered pregnant women (estimated at 4200) who attended the forty-one (41) accredited healthcare facilities in Uzo-uwani LGA, Enugu State between January and December, 2020. In line with the recommendation of Shahnaz, Muhammad, Iram and Muhammad (2018), 420 registered

pregnant women were selected. Multi-stage (2-stage) sampling technique was employed. First stage, involved selection of 20 health facilities using simple random sampling technique. The second stage involved the use of simple random sampling technique to select 21 pregnant women from each of the sampled 20 health facilities totaling 420 respondents.

Data collection: The instrument for data collection was researcher’s designed questionnaire known as “Knowledge and Utilization of Antenatal Care Services Questionnaire [KUACSQ]” which is comprised of three main sections namely A, B and C. The face validity of the instrument was established by three from the Department of Human Kinetics and Health Education, and two experts from Science Education (Measurement and Evaluation Unit), all from University of Nigeria, Nsukka. The reliability coefficient of 0.86 was obtained and considered appropriate. This is in line with the suggestion of Nworgu (2015) that a reliability index of .60 and above must be obtained before an instrument is considered reliable for use in the study. The researcher administered the copies of the KUACSQ to the pregnant women.

Data Analysis: Returned copies of the questionnaire were analyzed using Statistical Package for Social Sciences (SPSS) version 25. Frequency and percentage were used to answer research questions. In determining the knowledge of ANC services, the proportion of the pregnant women who got the answers correctly was used. The postulated null hypothesis was tested using Chi-Square statistics at .05 level of significance.

Results

Table 1: Frequencies and Percentages of Knowledge of Antenatal Care Services among Pregnant Women attending Health Facilities in Uzo-Uwani LGA, Enugu State (n=400)

| False | True |
|---|---------------------|
| S/N Items f(%) | f(%) |
| ANC services imply the | |
| 1. Care given to pregnant women and their unborn babies during pregnancy by skilled health care professionals in the health facilities. | 400(100.0) 0(0.0) |
| 2. Treatment of pregnancy-related illnesses such as diabetes, hypertension, miscarriages, eclampsia, and sepsis. | 364(91.0) 36(9.0) |
| 3. Accessing and monitoring of the health status of both the mother and unborn baby during pregnancy. | 385(96.3) 15(3.8) |
| 4. Taking of blood pressure measurement of pregnancy women by doctors or midwives in the health facilities. | 362(90.5) 38(9.5) |
| 5. Collection of blood sample during antenatal visits for proper blood screening and examination, urine testing for sugar and protein. | 308(77.0) 92(23.0) |
| 6. Giving of tetanus vaccine to pregnant women for the protection against tetanus infection for mother and baby. | 320(80.0) 80(20.0) |
| 7. Giving of intermittent preventive treatment in pregnancy (IPTP) to prevent malaria infection during pregnancy. | 281(70.3) 119(29.8) |
| 8. Act of de-worming repeatedly during pregnancy to prevent worm infestation. | 364(91.0) 36(9.0) |
| 9. Receiving of iron-folic acid supplement by pregnant women during visitations. | 367(91.8) 33(8.3) |
| 10. Receiving health education and counselling on the health of the pregnant woman and child. | 387(96.8) 13(3.3) |
| Average | 88.5 11.5 |

Key: f-frequency, %-percentage

Results in Table 1 show that overall, greater proportion (88.5%) of pregnant women possessed knowledge of ANC services in Uzo-Uwani LGA, Enugu State.

Table 2: Frequencies and Percentages of Knowledge of Antenatal Care Services among Pregnant Women attending Health Facilities in Uzo-Uwani LGA, Enugu State based on Age (n=400)

| S/N Items | 15-24 yrs (n=152) | | 25-34 yrs (n=140) | | 35-44 yrs (n=92) | | ≥45 years (n=16) | |
|---|----------------------|---------------|----------------------|---------------|---------------------|---------------|---------------------|---------------|
| | True f(%) | False f(%) | True f(%) | False f(%) | True f(%) | False f(%) | True f(%) | False f(%) |
| ANC services imply the: | | | | | | | | |
| 1. Care given to pregnant women and their unborn babies during pregnancy by skilled health care professionals in the health facilities. | 152(38.0) | 0(0.0) | 140(35.0) | 0(0.0) | 92(23.0) | 0(0.0) | 16(4.0) | 0(0.0) |
| 2. Treatment of pregnancy-related illnesses such as diabetes, hypertension, miscarriages, eclampsia, and sepsis. | 142(93.4) | 10(6.6) | 132(94.3) | 8(5.7) | 80(87.0) | 12(13.0) | 10(62.5) | 6(37.5) |
| 3. Accessing and monitoring of the health status of both the mother and unborn baby during pregnancy. | 146(96.1) | 6(3.9) | 133(95.0) | 7(5.0) | 90(97.8) | 2(2.2) | 16(100.0) | 0(0.0) |
| 4. Taking of blood pressure measurement of pregnancy Women by doctors or midwives in the health facilities. | 136(89.5) | 16(10.5) | 119(85.0) | 16(10.5) | 21(1.1) | 91(98.9) | 1(1.1) | 16(100.0) |
| 5. Collection of blood sample during antenatal visits for proper blood screening and examination, urine testing for sugar and protein. | 121(79.6) | 31(20.4) | 92(65.7) | 48(34.3) | 79(85.9) | 13(14.1) | 16(100.0) | 0(0.0) |
| 6. Giving of tetanus vaccine to pregnant women for the protection against tetanus infection for mother and baby. | 120(78.9) | 32(21.1) | 109(77.9) | 31(22.1) | 75(81.5) | 17(18.5) | 16(100.0) | 0(0.0) |
| 7. Giving of intermittent preventive treatment in pregnancy (IPTP) to prevent malaria infection during pregnancy | 106(69.7) | 46(30.3) | 97(69.3) | 43 (30.7) | 66(71.7) | 26(28.3) | 12(70.0) | 4(25.0) |
| 8. Act of de-worming repeatedly during pregnancy to prevent worm infestation. | 139(91.4) | 13(8.6) | 128(91.4) | 12(8.6) | 83(90.2) | 9(9.8) | 14(87.5) | 2(12.5) |
| 9. Receiving of iron-folic acid supplement by pregnant women during visitations. | 141(92.8) | 11(7.2) | 128(91.4) | 12(8.6) | 84(91.3) | 8(8.7) | 14(87.5) | 2(12.5) |
| 10. Receiving health education and counselling on the health of the pregnant woman and child. | 147(96.7) | 5(3.3) | 139(99.3) | 1(0.7) | 86(93.5) | 6(6.5) | 15(93.8) | 1(6.3) |
| Average | 88.81 | 11.2 | 87.4 | 12.6 | 80.0 | 20.0 | 80.6 | |

Key: f-frequency, %-percentage

Table 2 shows that overall, high proportion of pregnant women of different age groups possessed knowledge of ANC services in Uzo-Uwani LGA, Enugu State (15-24 years = 88.7%; 25-34 years = 87.4%; 35-44 years = 80%; ≥45 years = 80.6%).

Table 3: Frequencies and Percentages of Knowledge of Antenatal Care Services among Pregnant Women attending Health Facilities in Uzo-Uwani LGA, Enugu State based on Level of Education (n=400)

| S/N Items | NFE (n=15) | | Pri. Edu. (n=70) | | Sec. Edu (n=177) | | Tert. Edu. (n=138) | |
|---|---------------|---------------|---------------------|---------------|---------------------|---------------|-----------------------|---------------|
| | True f(%) | False f(%) | True f(%) | False f(%) | True f(%) | False f(%) | True f(%) | False f(%) |
| ANC services imply the: | | | | | | | | |
| 1. Care given to pregnant women and their unborn babies during pregnancy by skilled health care professionals in the health facilities. | 15(100.0) | 0(0.0) | 170(100.0) | 0(0.0) | 177(100.0) | 0(0.0) | 138(100.0) | 0(0.0) |
| 2. Treatment of pregnancy-related illnesses such as diabetes, hypertension, miscarriages, eclampsia, and sepsis. | 10(66.7) | 5(33.3) | 59(84.3) | 11(15.7) | 159(89.8) | 18(10.2) | 136(98.6) | 2(1.4) |
| 3. Accessing and monitoring of the health status of both | | | | | | | | |

| | | | | | | | |
|--|-----------|----------|-------------|-------------|-------------|-------------|-------------|
| the mother and unborn baby during pregnancy. | 15(100.0) | 0(0.0) | 64(91.4) | 6(8.6) | 173(97.7) | 4(2.3) | 133(96.4) |
| 5(3.6) | | | | | | | |
| 4. Taking of blood pressure measurement of pregnancy women by doctors or midwives in the health facilities. | 15(100.0) | 0(0.0) | 55(78.6) | 15(21.4) | 163(92.1) | 14(7.9) | 129(93.5) |
| 9(6.5) | | | | | | | |
| 5. Collection of blood sample during antenatal visits for proper blood screening and examination, urine testing for sugar and protein. | 15(100.0) | 0(0.0) | 46(65.7) | 24(34.3) | 130(73.4) | 47(26.6) | 117(84.8) |
| 21(15.2) | | | | | | | |
| 6. Giving of tetanus vaccine to pregnant women for the protection against tetanus infection for mother and baby. | 14(93.3) | 1(6.7) | 43(61.4) | 27(38.6) | 148(83.6) | 29(16.4) | 115(83.3) |
| 23(16.7) | | | | | | | |
| 7. Giving of intermittent preventive treatment in pregnancy (IPTP) to prevent malaria infection during pregnancy. | 5(33.3) | 10(66.7) | 37(52.9) | 33(47.1) | 130(73.4) | 47(26.6) | 109(79.0) |
| 29(21.0) | | | | | | | |
| 8. Act of de-worming repeatedly during pregnancy to prevent worm infestation. | 13(86.7) | 2(13.3) | 65(92.9) | 5(7.1) | 158(89.3) | 19(10.7) | 188(92.8) |
| 10(7.2) | | | | | | | |
| 9. Receiving of iron-folic acid supplement by pregnant women during visitations. | 14(93.3) | 1(6.7) | 56(80.0) | 14(20.0) | 165(93.2) | 12(6.8) | 132(95.7) |
| 6(4.3) | | | | | | | |
| 10. Receiving health education and counselling on the health of the pregnant woman and child. | 14(93.3) | 1(6.7) | 69(98.6) | 1(1.4) | 170(96.0) | 7(4.0) | 134(97.1) |
| 4(2.9) | | | | | | | |
| Average | | | 86.7 | 13.3 | 80.6 | 19.4 | 88.8 |
| | | | 11.2 | 92.1 | 7.9 | | |

Key: f-frequency, %-percentage

Table 3 shows that overall, high proportion of pregnant women of different level of education groups possessed knowledge of ANC services in Uzo-Uwani LGA, Enugu State (NFE = 86.7%; primary education = 80.6%; secondary education = 88.8%; tertiary education = 92.1%).

Table 4: Summary of Chi-square Analysis Showing Difference in the Knowledge of ANC Services among Pregnant Women attending Health Facilities in Uzo-Uwani LGA, Enugu State based on Age (n=400)

| Variables | N | Knowledge of ANC Services | | X ² | df | P-value |
|-------------|-----|---------------------------|--------|----------------|----|---------|
| | | True | False | | | |
| 15-24 years | 152 | 144(145.5) | 8(6.5) | | | |
| 25-34 years | 140 | 133(134.0) | 7(5.9) | 2.996 | 3 | 0.39 |
| 35-44 years | 92 | 91(88.1) | 1(3.9) | | | |
| ≥45 years | 16 | 15(15.3) | 1(0.7) | | | |
| Total | 400 | | | | | |

Note: O = observed frequencies; E = expected frequencies; X² = Chi square; df = degree of freedom.

Table 4 shows that there was no significant difference in the knowledge of ANC services among pregnant women attending health facilities in Uzo-Uwani LGA, Enugu State based on age, $\chi^2(3) = 2.996$; $p = 0.39$. Since the p-value was greater than 0.05 level of significance, the null hypothesis was not rejected. This implies that pregnant women did not differ in the knowledge of ANC services based on age.

Discussion

Results showed that greater proportion (88.5%) of pregnant women possessed adequate knowledge of ANC services in Uzo-Uwani LGA, Enugu State. Findings also showed that high proportion of pregnant women of different age categories possessed adequate knowledge of ANC services in Uzo-Uwani LGA, Enugu State. However, there was no significant difference in the knowledge of ANC services among pregnant women attending healthcare facilities in Uzo-Uwani LGA, Enugu State based on age, implying that the knowledge of ANC services by the respondents did not differ significantly based on age. The finding was not surprising rather

expected. It is a clear demonstration that the peoples' age was not a limitation in acquiring knowledge relating to health promotion and disease prevention. This finding is quite encouraging and expected especially in recent times where people gain knowledge of certain phenomenon through social media and other internet related platforms. Results further showed significant difference in the knowledge of ANC services among pregnant women attending health facilities in Uzo-Uwani LGA, Enugu State based on level of education. The finding demonstrated that the level of education was significant in possessing quality knowledge regarding ANC services by the respondents. The finding could also be attributed to the fact that every family in Uzo-Uwani LGA is informally initiated into pregnancy, sex education and childbirth. The expected finding was in line with Akhater et al. (2018) who opined that pregnant women with university degree possessed high knowledge of ANC services more than their counterparts with FSLC and WASSC in the community of Hussain Abad Lahore.

Conclusion

The researcher concluded that greater proportion of pregnant women possessed knowledge of ANC services in Uzo-Uwani LGA, Enugu State, irrespective of their age groups and levels of education. However, adequate knowledge does not translate to positive attitude and utilization of ANC services, hence, the need for sensitization programmes especially for CBMs.

Recommendation

Based on the findings of this study, the researcher recommends that routine seminars, workshops and conferences be organized by the government or health agencies as well as concerned bodies for the pregnant women targeted on knowledge sustainability regarding ANC services.

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