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Knowledge and Attitude of Women of Child-Bearing Ages Towards the Utilisation of Antenatal Care Services at Ilorin West Local Government Area, Kwara State, Nigeria

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ABSTRACT

This study examined the knowledge and attitude of women of childbearing age towards the utilisation of antenatal care services at Ilorin West Local Government Area. A quantitative design was utilised for the study. The population of the study comprised all women of childbearing age in Ilorin West LGA, Kwara State. A multi-stage sampling procedure of simple random sampling, proportionate and convenience sampling techniques was employed to select three hundred and ninety-one (391) respondents for the study. The instrument used for data collection was a structured questionnaire and an interview guide. Mean score ranking analysis, inferential analysis of Chi-square was employed to provide answers to research questions and analyse the hypotheses. Ethical approval was obtained from the Ministry of Health, Ilorin. The study findings revealed that there is a good level of knowledge of antenatal care services among women of childbearing age in Ilorin West Local Government Area, Kwara State.

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Introduction

Antenatal care (ANC) is the clinical assessment of the mother and fetus during pregnancy for the purpose of obtaining the best possible outcome for both the mother and child (Luke et al., 2020). ANC is an important determinant of maternal mortality and perinatal mortality rate and one of the basic components of maternal care on which the life of mothers and babies depend (Ndidi & Oseremen, 2020). It exposes pregnant women to counseling and education about their own health and the care of their children. In Nigeria and other developing countries, maternal and perinatal mortality rates are still high, and this can be attributed to generally poor utilization of antenatal care services (Okunlola et al., 2018). For instance, about 600,000 women die of pregnancy-related problems globally per year; of this, a total of about 52,900 maternal deaths occur in Nigeria (Ndidi & Oseremen, 2020).

Health knowledge is considered to be one of the key factors that enable women to be aware of their rights and health status to seek appropriate health services. Studies conducted in different parts of the world have discovered that level of knowledge of mothers toward ANC is important for utilizing ANC service: The level

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of knowledge of pregnant mothers also varies in different parts of the world (Adedokun & Yaya, 2020). Despite all of the preventative interventions implemented via ANC, maternal mortality and morbidity remain important challenges in developing countries, with large differences between and among demographic groups (UNICEF et al., 2017). Nigeria bears a disproportionate amount of the global maternal and neonatal mortality burden, ranking first and second in the world for the largest number of maternal and neonatal deaths, respectively (Federal Ministry of Health, 2019; UNICEF et al., 2017).

A lot of initiatives are in place to encourage adequate FANC utilization, these include: capacity building of health care providers towards ANC Guideline and intensive information, education and communication (IEC) on maternal health services offered in all health facilities. It is worrying that despite availability of the reproductive health policy and initiatives promoting adequate utilization of FANC services, very few pregnant women utilize these services (Adedokun & Yaya, 2020). Therefore, this study aimed to assess the knowledge and attitude of woman of child bearing age towards the utilisation of antenatal care services

Research Methodology

Research Design

A quantitative design of descriptive survey was utilise for the study. This method was used because the study requires the researcher to collect information for the purpose of describing the study in detail.

Population of the Study

Babbie (2021) considered a study population as the collection of essentials from which a sample is actually selected. The population of this study comprised of all woman of child bearing ages that reside in Ilorin West Local Government Area, Kwara State. The target population cut across all eleven wards in Ilorin West Local Government Area. The population of women of childbearing ages in Ilorin West LGA is 268,399 (Kwara State Ministry of Women Affairs, 2025).

Sample Size Determination and Sampling Techniques

The sample size was determined based on the total population of the study which is more than 10,000. Hence, the sample size was determined following Hair *et al*. (2019) assumption that the sample size of 300 or more is usually discussed as enough to use multivariate analysis in educational research. at 95% level of confidence and 5% margin error.

A multi-stage sampling procedure was employed in this research. In the first stage, a simple random sampling technique was used to select 5 wards out of the 12 wards in Ilorin West Local Government Area. This was done by using fishbowl method of choosing 5 wrapped peppers out of 12 wrapped peppers. The selected wards are Ojuekun/Zaurmi, Oke-erin, Baboko, Adewole and Warrah/Egbe jila/Oshin.

In the second stage, proportionate sampling techniques was used to select 0.35% of the total population of women of childbearing age that fit the inclusive criteria from each of the 5 selected wards. This took the total population of the women sample for the study to 391.

In the final stage, convenience sampling technique was used to select the 391 respondents as women of childbearing ages met in the selected wards were sampled once their consent is gotten.

Research Instrument

The main instrument that was used to gather data from the respondents was a researcher's structured questionnaire titled “Knowledge and attitude of woman of child bearing age towards the utilisation of antenatal care services in Ilorin West Local Government Area”. The questionnaire consisted of two section, A and B. Section A of the questionnaire elicited information on the demographic characteristics of the respondents, while section B elicited information on the variable under study. The questionnaire was a closed-ended type of four-point Likert rating scale format of strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) and also Always, Often, Rarely and Never. A pilot study was conducted in wards outsides the selected wards for the study (Ogidi Ward). The result of Pearson Product Moment Correlation (PPMC) co-efficient of 0.78r was gotten, which shows that the instrument was reliable.

Reliability of the Instrument

Reliability is the extent to which an instrument is free from random error, this measuring over time and variables it intended to measure having the same result. Split-half method was used to carry out the reliability of the instrument. The instrument was administered to selected sample of the respondents in wards outsides the selected wards for the study (Ogidi Ward). The result was then split into two and compared using Pearson Product Moment Correlation (PPMC). After analyzing the results using Pearson Product Moment correlation (PPMC), the correlation co-efficient of 0.78r was gotten, which shows that the instrument was reliable.

Method of Data Analysis

The data collected from the respondents was sorted, coded, and subjected to appropriate statistical analysis. No missing data was recorded. Section A which entailed the demographic data of the respondents was analyzed using descriptive statistics of frequency and

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percentage; also, mean and standard deviation was use to answer research questions while the inferential statistics of chi-square was used to test the postulated hypotheses at 0.05 alpha level to criterion whether to reject or retain the stated hypotheses used for the study.

Ethical Consideration

Ethical approval was obtained from Ministry of Health, Ilorin with the use of school identity card, school ethical form and research proposal to enable the researcher obtain approval for the study. Informed consent from respondents' prior administration of the questionnaire was ensured. The principle of confidentiality and anonymity was upheld throughout the study as participants were not required to disclose their personal information on the questionnaire.

Results

Demographic Information of Respondents

Table 1: Demographic Characteristics of Respondents

S/N	Characteristics	Frequency	Percentage (%)
1.	Age Range		
	20-25years old	92	23.5
	26-30years old	128	32.7
	31-35years old	101	25.8
	35years and above	70	18.0
	Total	391	100.0
2.	Level of Education		
	No formal education	78	19.9
	Primary education	84	21.5
	Secondary education	102	26.1
	Tertiary education	127	32.5
	Total	391	100.0
3.	Number of Children		
	1-2	182	46.5
	3-4	169	43.2
	5 and above	40	10.3
	Total	391	100.0

Table 1 shows the demographic characteristics of the 391 women of childbearing age who participated in the study. The largest proportion of respondents, 128 (32.7%), were aged 26–30 years, followed by 101 (25.8%) in the 31–35 years' group. Younger women aged 20–25 years accounted for 92 (23.5%), while those aged 36 years and above were the least represented, with 70 (17.9%). In terms of religion, most respondents were Muslims, 236 (60.4%), while Christians accounted for 155 (39.6%). Regarding educational attainment, the majority of women, 127 (32.5%), had tertiary education, followed by 102 (26.1%) with secondary education. Respondents with no primary education were 84 (21.5%), while those with no formal education were the least, 78 (19.9%). On the number of children, most women, 182 (46.5%), had between 1–2 children, followed by 169 (43.2%) with 3–4 children. Only a smaller proportion, 40 (10.2%), reported having five or more children.

Answer to Research Questions

Research Question One: What is the level of knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State?

P-ISSN: 2811-1516
E-ISSN: 2811-1524

Table 2: Mean Scores Showing the Level of Knowledge of Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA

S/N	Items	SA	A	D	SD	Mean	Stand. Dev.
1	I know the recommended number of antenatal care visits a pregnant woman should attend.	102 (26.1%)	113 (28.9%)	171 (43.7%)	5 (1.3%)	2.80	0.84
2	I am aware that antenatal care helps detect and prevent complications during pregnancy.	110 (28.1%)	160 (40.9%)	106 (27.1%)	15 (3.8%)	2.93	0.86
3	I know that taking iron and folic acid supplements during pregnancy is part of antenatal care.	70 (17.9%)	150 (38.4%)	131 (33.5%)	40 (10.2%)	2.64	0.89
4	I can identify at least three services provided during antenatal care visits.	88 (22.5%)	142 (36.3%)	136 (34.8%)	25 (6.4%)	2.75	0.88
5	I understand the importance of attending antenatal care even if I feel healthy during pregnancy.	115 (29.4%)	160 (40.9%)	101 (25.8%)	15 (3.8%)	2.96	0.85
	Grand Mean ($\bar{X}$)					2.99	

Negative Value= 0.00-2.44, Positive Value= 2.45-4.00

Table 2 presents the responses of 391 women of childbearing age on their knowledge of antenatal care (ANC) services in Ilorin West LGA. The grand mean of 2.99 falls within the positive range of 2.44, indicating that respondents generally demonstrated a good level of knowledge of ANC services. Hence, there is good level of knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

Research Question Two: What is the attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State?

Table 3: Mean Scores Showing the Attitude towards Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA

S/N	Items	SA	A	D	SD	Mean	Stand. Dev.
6	I encourage other pregnant women to attend antenatal care services.	140 (35.8%)	165 (42.2%)	66 (16.9%)	20 (5.1%)	3.09	0.87
7	I willingly attend antenatal care appointments when I am pregnant.	150 (38.4%)	160 (40.9%)	61 (15.6%)	20 (5.1%)	3.12	0.86
8	I believe antenatal care is important for the health of the mother and baby.	160 (40.9%)	165 (42.2%)	51 (13.0%)	15 (3.8%)	3.20	0.82
9	I feel confident discussing my pregnancy concerns with antenatal care providers.	135 (34.5%)	160 (40.9%)	76 (19.4%)	20 (5.1%)	3.05	0.88
10	I prioritize attending antenatal care over other non-emergency commitments.	145 (37.1%)	155 (39.6%)	71 (18.2%)	20 (5.1%)	3.08	0.87
	Grand Mean ($\bar{X}$)					3.11	

Negative Value= 0.00-2.44, Positive Value= 2.45-4.00

Table 3 presents responses from 391 women of childbearing age on their attitudes towards antenatal care (ANC) services in Ilorin West LGA. The grand mean of 3.11 falls within the positive range of 2.44, indicating a favorable overall attitude toward ANC services among respondents. Overall, the findings highlight that women in Ilorin West LGA hold strongly positive attitudes toward antenatal care services.

Test of Hypotheses

$H0_1$: There is no significant knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

P-ISSN: 2811-1516
E-ISSN: 2811-1524

Table 4: Chi-Square Analysis Showing the Knowledge of Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA

Variable	N	Df	Cal. χ^2 value	Crit. χ^2 value	P value	Remark
Knowledge of Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA	391	12	174.31	21.026	0.000	$H0_1$ Rejected

Table 4 shows the calculated chi-square value of 174.31 which is greater than the critical chi-square value of 21.026 (Cal. χ^2 val. > Crit. χ^2 val.) with a degree of freedom of 12 at 0.05 alpha level. Since the calculated χ^2 value is greater than the critical value, the null hypothesis which stated that there is no significant knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State was rejected. This implies that there is significant knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

$H0_2$: There is no significant attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

Table 5: Chi-Square Analysis Showing the Attitude towards Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA

Variable	N	Df	Cal. χ^2 value	Crit. χ^2 value	P value	Remark
Attitude towards Antenatal Care Services among Women of Childbearing Ages in Ilorin West LGA	391	12	202.48	21.026	0.000	$H0_2$ Rejected

Table 5 shows the calculated chi-square value of 202.48, which is greater than the critical chi-square value of 21.026 (Cal. χ^2 val. > Crit. χ^2 val.) with a degree of freedom of 12 at 0.05 alpha level. Since the calculated χ^2 value is greater than the critical value, the null hypothesis which stated that there is no significant attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State was rejected. This implies that there is significant positive attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

Discussion

Answer to research question one shows that there is good level of knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State because the grand mean of 2.99 falls within the positive range, indicating that respondents generally demonstrated a good level of knowledge of ANC services. This finding is in corroboration with the finding of descriptive cross-sectional study, which was carried out in February 2022 in the Ilorin East Local Government Area, Adewoye et al. found that 87.7% of the respondents were aware of ANC, out of which most of them had good knowledge (Onasoga et al., 2022). This comport with Andersen's Behavioral Model of health services utilization which believe that knowledge about health services is influenced by different factors attributed to certain geographical area (Babitsch *et al*., 2022).

Answer to research question two shows that women in Ilorin West LGA hold strongly positive attitudes toward antenatal care services because the grand mean of 3.11 falls within the positive range, indicating a favorable overall attitude toward ANC services among respondents. This finding is consistent with the finding of Fagbamigbe and Idemudia (2015) revealed that women with higher levels of education and health literacy were more likely to have a positive attitude towards ANC and attend the recommended number of visits. Conversely, Andersen's Behavioral Model helps to understand that attitude towards health services would be positive if personal and contextual variables that shape the utilization of antenatal care (ANC) services is favourable among women of childbearing age in Ilorin West Local Government Area.

Hypothesis one shows the calculated chi-square value of 174.31 which is greater than the critical chi-square value of 21.026 (Cal. χ^2 val. > Crit. χ^2 val.) with a degree of freedom of 12 at 0.05 alpha level. Since the calculated χ^2 value is greater than the critical value, the null hypothesis which stated that there is no significant knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State was rejected. This implies that there

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E-ISSN: 2811-1524

is significant knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State. This finding is in line with the findings of study conducted in Metekel zone, North West Ethiopia, 65.6% of women interviewed knew at least half of the knowledge questions on ANC and so labeled as knowledgeable (Tur, 2019). Different factors can influence the knowledge of the women towards ANC service.

Hypothesis two shows the calculated chi-square value of 202.48 which is greater than the critical chi-square value of 21.026 (Cal. χ^2 val. > Crit. χ^2 val.) with a degree of freedom of 12 at 0.05 alpha level. Since the calculated χ^2 value is greater than the critical value, the null hypothesis which stated that there is no significant attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State was rejected. This implies that there is significant positive attitude towards antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State. This finding align with the findings of studies in rural areas of the developing world which shown an association of specific attitudes with the utilization of and access to health services. The attitude towards ANC at government health facilities was significantly associated negatively with ANC and shows low utilization of ANC. Studies have reported negative attitudes as a major barrier to ANC utilization (Effendi, Isaranurug & Chompikul, 2018).

Conclusion

The findings of the study conclude that there is good level of knowledge of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State. Also, women in Ilorin West LGA hold strongly positive attitudes toward antenatal care services. Finally, there is significant knowledge and positive attitude towards of antenatal care services among women of childbearing ages in Ilorin West Local Government Area, Kwara State.

Recommendations

Based on the conclusion of the study, the following recommendations were made;

Since women in Ilorin West LGA already possess a good level of knowledge of antenatal care (ANC), continuous health education campaigns should be maintained and expanded to ensure information reaches younger women and first-time mothers.

Community-based advocacy programs should be implemented to reinforce women's positive attitudes toward ANC, using role models, mother support groups, and community leaders to further promote ANC attendance.

Programs should be designed to engage men actively in maternal health, while policies that subsidize or make ANC services more affordable should be strengthened. Respectful maternity care should be a core principle in all health facilities to build trust and encourage utilization.

Limitation of the Study

The study is limited to women of childbearing age in Ilorin West Local Government Area, Kwara State. A quantitative design was utilise for the study which means the finding cannot be generalized to women from different geographical locations.

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