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Barriers and enabling factors to antenatal clinic attendance among pregnant women: A cross-sectional assessment at Federal Medical Center Asaba Delta State Nigeria

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Abstract

Increase antenatal care contact strengthen the chances of early identification of maternal and foetal risk; hence, early intervention to promote mother and child safety. This study identifies barriers and enabling factors to antenatal clinic attendance among pregnant women in FMC, Asaba Delta State, Nigeria. A descriptive cross-sectional study design was adopted, and a sample size of 300 pregnant women was employed in the study. A validated self-structured questionnaire was used for data collection. The reliability of the instrument was established through the Cronbach alpha method, which yielded 0.70. Data were analysed using the Statistical Package for Social Sciences (SPSS version 25). Descriptive and inferential statistics were used, and the significance level was set at 0.05. The result shows that several barriers were identified with the presence of co-wives (mean = 3.1) and paternal education (mean = 3.1) being the most implicated with an overall mean of 2.93. The most enabling factors for ANC in this study were health insurance/user-free exemption (mean = 3.3), involvement in decision-making (mean = 3.1), husband/partner's approval (mean = 3.3), and supportive spouse (mean = 3.2), with a general mean of 2.95. ANC attendance was significantly associated with age and parity and insignificantly associated with education. In conclusion, to improve ANC attendance, targeted education, awareness programs and health insurance as enabler be implemented, emphasising the importance of ANC and addressing socio-economic, and cultural barriers.

Keywords: Barrier factor; Enabling factor; Antenatal clinic; Pregnant women

1. Introduction

One of the purpose of human on earth should be to procreate, and it is a necessity to care for the progeny hence, the need for proper antenatal care (ANC). According to World Health Organization in Rotimi [1], Nigeria accounts for 23% of global maternal deaths in 2017 and her maternal mortality rate peaked at 556 deaths per 100,000 live births as against 190 globally [2]

In 2016, the minimum of four ANC visits recommended by WHO was increased to eight ANC contacts based on evidence that frequent visit improves maternal and foetal outcomes via-a-vis quality of care [3]. Early ANC initiation is particularly important as it facilitates the timely detection of complications such as preeclampsia, anaemia, and infections. Yet, global data in 2017 revealed that only 60% of women attended at least four ANC visits, with even lower attendance rates in Nigeria [4].

Barriers to ANC attendance in Nigeria are multifaceted, including socioeconomic, cultural, and healthcare system-related factors [5]. Long distances to health facilities, poor road infrastructure, and transportation challenges remain significant obstacles, particularly in rural areas [6]. Additionally, direct and indirect costs, such as fees for services and

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transportation, deter many women from seeking timely care, Socio-cultural factors, including limited spousal support, low levels of maternal education, and cultural norms, also play a critical role in ANC underutilisation [7, 8]. Healthcare system-related challenges, such as inadequate staffing, long waiting times, and perceptions of discrimination by healthcare providers, exacerbate the problem. Studies have shown that women who perceive healthcare services as inaccessible or of poor quality are less likely to attend ANC [9]. Addressing these barriers requires targeted interventions to improve access, affordability, and the quality of maternal healthcare services.

Contrary to the recent WHO recommendation of first ANC contact within 12 weeks of pregnancy, majority of pregnant women in Nigeria first ANC contact has been after 12 weeks of pregnancy [4]. Indicating late commencement of ANC among them, however, some of the enabling factors to utilization of ANC services include. Age, culture, income, education, religion, marital status and occupation [10, 11, 12].

Delayed antenatal care (ANC) attendance after 12 weeks of pregnancy is a growing public health concern [4]. Late initiation and inadequate use of prenatal care services are independently associated with multiple variables, including demographic characteristics, socio-economic factors, predisposing cultural and religious factors, social support [13, 14]. Inadequate utilization of ANC services is a major contributor to these statistics, as many pregnant women fail to start ANC early or do not complete the recommended number of visits (Venyuy *et al.,* 2020) Which could compromise the attainment of Sustainable Development Goal 3 and increasing the risk of complications and poor pregnancy outcomes [2]. Therefore, the researcher intends to examine the barrier and enabling factors to antenatal clinic attendance among pregnant women attending ANC in FMC Asaba, Delta State Nigeria.

1.1. Research Questions

- What are the barriers to pregnant women antenatal clinic attendance at FMC, Asaba.
- What is the enabling factors to pregnant women antenatal clinic attendance at FMC, Asaba Delta state

1.2. Hypothesis

There is no significant association between demographic data (age, education and parity) and antenatal visit by the pregnant women at FMC, Asaba Delta state.

2. Material and methods

This study adopted the descriptive cross-sectional study design to assess the barriers and enabling factors to antenatal clinic attendance among pregnant women at FMC, Asaba, Delta State.The clinic holds four (4) days a week and has an average visit of 35 pregnant women (Pre-field Survey). The sample size for this study was 300 and a convenience sampling technique was used to select participants. the inclusion criteria is the willing of pregnant women between ages of 15 to 49 years visiting federal medical centre within the period of this study to participate.

A validated, self-structured tool , with Cronbach's alpha value of 0.7 was used to collect data from the respondent. the tool comprising section A for biodata and 16 likert-like questionnaire section B for assessing barrier and enabling factors respectively Ethical clearance was obtained from the Research and Ethics Committee of the federal medical center Asaba Delta state. Collection of data from the pregnant women was carried out on the clinic days (Mondays, Wednesdays, Thursdays and Fridays) over a six (6) week period from 4th of March, 2024 to 12th of April, 2024.

Statistical Package for Social Sciences (SPSS version 25) was utilized for analyses of the collated data. Descriptive statistics used focused on frequency distributions, using measures of central tendency like the mode. The Likert scale was coded as follows: SA = 4, A= 3, D= 2, and SD= 1. The benchmark of 2.50 and below was set at agreed while that above 2.50 disagreed. The Chi-square test was used for inferential statistics. The significance level of the P-value was 0.05.

3. Results

Table 1 shows that the most common barrier factors of ANC attendance among the studied population include; Husband/partner education and occupation (mean score 3.1); the presence of co-wives (mean score 3.1); the maternal final say on her healthcare (mean score 3.0); and parity/family size and household size (mean score 3.0). Others include, maternal age and education, maternal occupation and religion, lack of knowledge of the benefits of ANC, and the health facility is too far from the place of residence.

Table 1 Barrier factors of ANC attendance among the studied population n = 300

Variables	SA	C	D	SD	Mean Score	Decision
Maternal age and education	113(452)	93(279)	59(118)	35(35)	2.9	Accepted
Husband/partner education and occupation	99(396)	101(303)	99(198)	36(36)	3.1	Accepted
Maternal occupation and religion	106(424)	83(249)	87(174)	24(24)	2.9	Accepted
The presence of co-wives	100(400)	120(360)	80(160)	0(0)	3.1	Accepted
The maternal final says on her Healthcare	100(400)	96 (288)	104(208)	0(0)	3.0	Accepted
Parity/family size and household size	90(360)	116(348)	90(180)	20(20)	3.0	Accepted
Lack of knowledge of the benefits of ANC	96(384)	86(258)	68(136)	50(50)	2.7	Accepted
The health facility is too far from the place of residence	85(340)	97(291)	55(110)	63(63)	2.7	Accepted
Grand mean					2.93	

Decision: mean score 2.5 and above is accepted (a barrier) while mean score below 2.5 is rejected (not a barrier).

Table 2 Enabling factors of ANC attendance among the studied population n = 300

Variables	SA	A	D	SD	Mean Score	Decision
Household wealth/socioeconomic Status	72(288)	69(207)	91(182)	68(68)	2.4	Rejected
Distance from health facilities	51(204)	110(330)	99(198)	40(40)	2.8	Accepted
Health insurance/user-free exemption	140(560)	114(342)	35(70)	11(11)	3.3	Accepted
Involvement in decision-making	130(520)	72(216)	83(166)	15(15)	3.1	Accepted
Husband/partner's approval	106(424)	164(492)	30(60)	0(0)	3.3	Accepted
Knowledge of the objective of ANC care	38(152)	149(447)	86(172)	27(27)	2.7	Accepted
Supportive spouse	143(572)	79(237)	78(156)	0(0)	3.2	Accepted
The language used by health workers is friendly and well understood.	108(432)	70(210)	66(132)	56(56)	2.8	Accepted
Grand mean					2.95	

Decision: mean score 2.5 and above is accepted (an enabling factor) while mean score below 2.5 is rejected (not an enabling factor).

Table 2: Reveals that the most common enabling factors of ANC attendance among the studied population are health insurance/user-free exemption (mean score 3.3), husband/partner's approval (mean score 3.3), supportive spouse (mean score 3.2). Others include, distance from health facilities, the language used by health workers is friendly and well understood, and knowledge of the objective of ANC care. Household wealth/socioeconomic status was indicated by the respondents as non-enabling factor (mean score = 2.4).

3.1. Research Hypotheses

- H_0: there would be no significant association between the antenatal clinic attendance and socio-demographic characteristics.

Table 3 showed that ANC attendance was significantly associated with age, and parity ($p<0.05$ respectively) and insignificant educational level

Table 3 Association between the antenatal clinic attendance and socio-demographic characteristics

Variables	Antenatal clinic attendance		X^2	P value
	<4 times	>4 times		
Age (years)				
15-24	29 (56.9%)	22 (43.1%)	21.387	0.001
25-29	44 (51.8%)	41 (48.2%)		
30-34	49 (42.2%)	67 (57.8%)		
35-39	16 (55.2%)	13 (44.8%)		
40-44	0 (0%)	0 (0%)		
45-49	0 (0%)	4 (100%)		
Trader	30 (46.1%)	35 (53.9%)		
Education				
Primary	40 (46%)	47 (54%)	0.495	0.781
Secondary	70 (47.6%)	77 (52.4%)		
Tertiary	28 (42.4%)	38 (57.6%)		
Parity				
None	75 (68.8%)	34 (31.2%)	88.017	0.001
One	13 (25%)	39 (75%)		
Two	50 (46.7%)	57 (53.3%)		
Three and above	0 (0%)	32 (100%)		

All the variables in this table were significant at $p<0.05$

4. Discussion

The respondent in this study implicated all items on barriers to antenatal attendance and also are the enabling factors except household wealth or socioeconomic status.

4.1. Barrier factors of ANC attendance

Among the jutting barriers are the education and occupation of husbands or partners. Education and occupation of the husband identified in this study corroborate the finding of [13, 14], where higher education of the husbands increases ANC utilisation in the urban area of Nigeria. This implies the higher the educational status and occupation of the husband, the higher the chances of having their wives visit an ANC facility for care. Research consistently demonstrates that higher educational levels and better employment status of male partners positively influence ANC attendance. Educated partners are more likely to understand the importance of ANC and support their wives in attending these services [12].

The presence of co-wives in polygamous families also emerged as a striking barrier. This was consistent with the findings in West Africa, where the presence of a co-wife or polygamous setting presented with a low level of ANC services uptake [15]; as such households, resources and attention may be divided among multiple wives, potentially limiting the support for each woman for attending ANC [10]. Additionally, when a woman does not have the final say in her healthcare decisions, her ability to seek timely ANC may be compromised.

.Past studies [16] have indicated parity as a barrier factor for ANC services utilisation, which is consistent with this finding. The acceptance of parity as a barrier in this study could be a result of the respondent experiences associated with pregnancy and childbirth. On the contrary, high parity and large household sizes correlate with decreased ANC attendance due to the increased demands on the woman's time and resources [17]. Maternal age was also implicated,

as it plays a dual role; younger mothers might lack the experience or knowledge to seek ANC, while older mothers with many children might neglect ANC due to overconfidence or time constraints [18].

Maternal education is another crucial finding in this study, which corroborates the finding in India where educated mothers had at least 4 ANC visits before putting to bed [6]. Women with higher educational attainment are more informed on the benefit of ANC, which suggests more visitation in the study, which is consistent with findings in [19].

Religious beliefs and distance to health facilities were well-documented barriers in this study, which corroborate [11, [20]; on the contrary, the study contradicts the finding in sub-Saharan Africa [21]. Certain religious doctrines may either support or discourage the use of medical interventions during pregnancy, affecting women's ANC behaviours [7]. Moreover, a significant portion of the population may lack adequate knowledge about the benefits of ANC, which underscores the need for comprehensive health education campaigns.

4.2. Enabling factors of ANC attendance

The study identifies several enabling factors that significantly contribute to antenatal care (ANC) attendance among the studied population. One of the most impactful enablers is the presence of health insurance or user-free exemptions. Health insurance significantly reduces the financial barriers associated with accessing health care services, thus promoting higher ANC attendance rates. This finding aligns with numerous studies that highlight the positive effect of financial support mechanisms on maternal health service utilisation [12].

The approval and support of husbands or partners also play a crucial role in enabling ANC attendance. When husbands or partners approve and actively support their spouses' healthcare decisions, women are more likely to attend ANC appointments [10]. This supportive dynamic underscores the importance of male involvement in maternal health initiatives, as advocated by various health organizations [22, 23].

The proximity of health facilities is another significant enabling factor revealed in this study. This finding is consistent with the finding in sub Saharan Africa, particularly Nigeria, where 75% of respondents attest to the long distance of health facilities as a hindrance to utilisation of ANC services [11]. Invariably, Shorter distances to health facilities reduce travel time and transportation costs, making it easier for pregnant women to access necessary care (Eke et-al 2021). This finding suggests that improving the geographic accessibility of healthcare services can substantially enhance ANC attendance rates

The language used by health workers also emerged as an important enabler. When health workers use friendly and easily understood language, it creates a more welcoming and effective communication environment for expectant mothers. Effective communication fosters trust and understanding, which necessitate the need to use skilled health care provider [5],[12]

Knowledge of the objectives and benefits of ANC is a crucial factor in enabling attendance. Women who are well-informed about the importance of ANC are more likely to seek and adhere to the recommended care schedules [16]. Health education campaigns that emphasize the benefits of ANC can thus play a vital role in increasing attendance rates [5], [12]

Interestingly, household wealth or socioeconomic status was indicated as a non-enabling factor, which is inconsistent with Ogbo [16] whose study revealed increase ANC service utilization in relation to family wealth. Conversely having a mean score of 2.4 in this study is somewhat counter-intuitive, given that higher socioeconomic status is often associated with better access to healthcare services.

4.3. Socio-demographic associations

The hypothesis of this study reveals a significant association between ANC attendance among pregnant women with their age and parity; most of the time, those with teenage pregnancies eschew activities that expose them to the public to avoid pregnancy stigmatisation until after delivery [17]. On the contrary, this test showed that educational level is irrelevant to the frequency of ANC contact, which is not in line with Ogbo [16].

5. Conclusion

This study provides valuable insights into the Barriers and enabling factors to antenatal clinic attendance among pregnant women. It reveals that education and occupation of husbands or partners, presence of co-wives, maternal say on her healthcare and parity/family size, religion, maternal education distance to health facility as barrier. Women aged

25-34 years are higher in ANC contact. The enabling factors requires a comprehensive approach, including promoting health insurance schemes, encouraging male partner involvement, improving healthcare accessibility, ensuring effective communication by health workers, and enhancing community awareness about the benefits of ANC.

Compliance with ethical standards

Disclosure of conflict of interest

There is no conflict of interest to be disclosed.

Statement of informed consent

Inform consent was obtained from each respondent in this study.

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