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Perceived Factors Influencing Compliance to Antenatal Care Services among Pregnant Women Attending World Bank Primary Health Care Centre Umuahia Abia State, Nigeria

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Abstract

Antenatal care service is very essential. The goal is to improve the health of the mother and the growing baby. Inadequate antennal visit affects the health of the mother and baby. The aim of the present study was to examine perceived factors influencing compliance to antennal care services among pregnant women attending primary health care Centre World Bank Umuahia Abia State. The variables examined were mother-related factors, hospital -related factors, and health worker-related factors. A cross-sectional descriptive design was used for the study. 46 basic pregnant mothers completed the study. No sampling was carried out. A researcher developed Questionnaire was used as instrument of data collection. Collected data was subjected to descriptive statistics. Findings revealed that the respondents perceived that mother related factors had significant influence on compliance to ANC (Grand mean 2.7). Nevertheless, the respondents perceived that educational level do not affect compliance to ANC (mean 2.30), the respondents perceived that hospital-related factors had a significant influence on compliance to ANC services (mean 2.7). The respondents perceived that the cost of antenatal service is high (mean 3.1) and the clinic is too far from their houses (mean 2.9), the respondents perceived health worker-related factors as not a significant factor influencing compliance to antenatal (mean 2.3), the finding also identified that scolding of the pregnant mothers by midwives had significant influence on compliance to antenatal care services (mean 2.8). Based on the finding, it was recommended that Government should reduce the cost of antenatal care services and midwives should avoid scolding the patients.

Keywords: Perceived Factors, Compliance, Antenatal Care Services, Pregnant Women, Primary Health Care Centre

Introduction

Antenatal care is the care given to pregnant women so that they have safe pregnancy and healthy baby [1]. The provision of antennal care (ANC) services brings with it a positive impact on pregnancy as it enables the identification of risk factors and early diagnosis of pregnancy complications [2]. The positive impact can be achieved through screening for pregnancy problems,

assessing pregnancy risk, treating problems that may arise during the antenatal period, giving medication that may improve pregnancy outcomes, providing information to the pregnant woman, preparing physically and psychologically for childbirth and parenthood [1].

Generally, at the first antenatal visit to a healthcare facility, a pregnant woman is issued with an antenatal care card. This card is the principal record of the pregnancy and it is filled in whenever the woman goes for an ANC visit. After the first visit, the woman is considered to be booked for subsequent ANC visits to identify the complications and manage these complications in timely manner [1]. The first visit is important because it enables the midwives to do a total assessment of the pregnant women to identify their gestational ages as well as those at risk for pregnancy complications.

Antenatal care services help pregnant women by identifying complications associated with the pregnancy or diseases that might adversely affect the pregnancy. Through antenatal visits, women benefit from various interventions, including counseling about healthy lifestyles, the provision of iron/folic acid supplements, and tetanus toxoid vaccinations reported to protect newborns against neonatal death [3].

World health organization (WHO), recommended that pregnant women should have their first contact in the first 12 weeks' gestation, with subsequent contacts taking at 20, 26, 30, 34, 36, 38 and 40 weeks' gestation. The minimum of eight contacts is recommended to reduce perinatal mortality and improve women's health (WHO). Inadequate antenatal care contributes to increase in mortality and morbidity rate. Approximately, 536,000 maternal death occur annually of which over 95% occur in sub-Saharan Africa and Asia. Globally 30% of women between the age group of 15-40 years do not have ANC, 46% of those who did not have ANC are in South Asia while 34% are in sub-Saharan Africa. This low use of services leads to death and disability due to untreated hypertensive disorders or due to mal- or sub-nutrition like iron deficiency anemia [4].

Africa has the highest burden of maternal mortality in the world and sub-Saharan Africa is largely responsible for the dismal maternal death figure for that region, contributing approximately 98% of the maternal deaths for the region. Effects of antenatal care services on birth-weight, the importance of model specification and empirical procedure were used in estimating the marginal productivity of health inputs [4].

A number of studies have identified the lack of antenatal care as risk factor for maternal morbidity and mortality [9, 11]. Since inadequate ANC is associated with worse pregnancy outcomes, it is vital for health policymakers to better understand the factors influencing proper and prompt utilization of ANC. Utilization of services during pregnancy will lead to further utilization of additional maternal services like institutional delivery and seeking assistance for complications during delivery and postnatal period. Although, individual studies have highlighted many factors affecting the utilization of antenatal care in different contexts, these findings have not been synthesized collectively. Therefore, there was a need to carry out a literatu A number of studies have identified the lack of antennal care as risk factors for maternal morbidity [1]. Since inadequate ANC is associated with worse pregnancy outcomes, it is vital for health policymakers to better understand the factors influencing proper and prompt utilization of ANC services. Studies have highlighted many factors affecting the utilization of antenatal care in different contexts [5, 4, 1]. Results revealed that lack of awareness, (76.7%) and absence of health problems during last pregnancy, (73.4%) were factors affecting utilization [4]. Sali, *et al* discovered that low educational level, no media access, distance problem from the health facility, and not planned pregnancy were the factors that affect the utilization of ANC services [5]. Although, these studies were not done in Nigeria, the researcher during her clinical experience in a rural community in South East Nigeria discovered that some women developed complications as a result of pregnancy. The researcher also observed that women in the rural communities do not attend ANC clinic as specify by WHO. What can be the likely reasons for their non-compliance? Based on this question, the researcher deemed it necessary to carry out a research on factors influencing compliance to antenatal care among pregnant women attending primary health care centre world bank Umuahia Abia state.

Materials and Methods

In this chapter the method employed to carry out this study is discussed. The chapter is organized under the following headings: research design, research setting, target population, accessible population, sample and sampling technique, instrument for data collection, validity and reliability of instrument, method of data collection and method of data analysis and ethical consideration.

Research Design

A cross sectional descriptive design was used for the study. The researcher considered a cross sectional descriptive design as appropriate for this study because the present study was intended to observe and describe factors influencing compliancy to ANC among pregnant mothers without any researcher intervention or manipulation.

Study Setting

The setting for this study is World Bank Primary Health Care (PHC)**,** Umuahia, Abia State. Umuahia is the capital of Abia State. Abia is a state in the South Eastern part of Nigeria. Abia state was created in 1991 from part of Imo State. Umuahia is indigenously Igbo. Umuahia is located along the rail road that lies between Port Harcourt to its South, and Enugu to its North. Umuahia has a population of 359,230 [6].

World Bank Primary Health Care Umuahia is a Healthcare institution designed for 20 bed spaces. Its mission is to provide qualitative accessible and affortable medical services to patients of all ages. It is located at Umuahia north, urban 5 with facility code no 01/15/1/1/1/0084. It is located along Aba Road, Afara Layout, Umuahia. The PHC has outpatient clinic which operates on a daily bases.

Target Population

The target population of the study consists of a total number of 66 pregnant women that attended ANC in World Bank primary health center Umuahia in January 2022.

Sample and Sampling Technique (Subjects of the study)

No sampling was done. Based on the consideration that a target population of 66 was relatively small, the whole target population was used for the study.

Inclusion Criteria

- Must be a pregnant woman

- Must be attending ANC at World Bank Primary health center Umuahia in January 2022.

Instrument for Data Collection

The instrument for data collection was a semi- structured questionnaire designed by the researcher. The questionnaire has two (2) sections, Section A and Section B. Section A extracts the demographic profile of the mothers while Section B elicits the perceived factors influencing compliance to antenatal care among pregnant women, numbers 1-3 of Section B was based on mother-related factors, numbers 4-6 was based on hospital -related factors, while numbers 7-9 was based on health worker - related factors. The instrument measured variables of interest on a 4-point Likert-type scale. The instrument was worded in English.

Validity of Instrument

For face validity, the instrument was submitted to the project supervisor and two other experts in the Department of Nursing, Abia State University, Uturu. They cross checked the sequence and arrangement of questions on the questionnaire, they identified areas of temporary ambiguity and offered corrections, they verified that questions on the questionnaire corresponds with the operationalized variables of interest. Their corrections and suggestions were effected to better adapt the instrument to meet relevant objectives.

Reliability of the Instrument

To test the reliability of the study, a pre-testing of the instrument was carried out using 6 pregnant mothers attending Federal medical centre Umuahia. The instrument was administered once. The reliability of the instrument was computed using split-half method. A Cronbach's statistical index of 0.788 was obtained. A reliability index > 0.7 depicts good reliability.

Method of Data Collection

Contact with the respondents was made after routine ANC service had been obtained. Data collection was done on a daily basis in the selected health centers from 8am to 5pm. This was to improve the chances of respondent participation in filling in the instrument of data collection. A questionnaire was given to each respondent and they were allowed to fill the questionnaire after oral consent has been obtained. A total of 66 copies of the questionnaire were administered.

Method of Data Analysis

The responses were collected and tallied. Collated data was subjected to descriptive statistics (frequency and percentage). The results of data analysis were presented in tables.

Ethical Consideration

After the research topic was approved as ethical by the Research Committee of Department of Nursing University of Abia State University, oral permission was obtained from the clinic manager before data collection commenced. Careful explanation of purpose of the study was done and voluntary participation of the respondents was sought. All the respondents were accorded their due
respect and anonymity during the study. Confidentiality of the information given by the respondents was ensured and maintained.

Results

This chapter dealt with the presentation of results. Out of 66 copies of the questionnaire administered, 46 copies were retrieved as completely filled giving a return rate of 69.7%. The results were represented in tables based on the research questions.

Respondents Demographic Distribution

Table 1 summarizes the socio-demographic profile of the respondents.

Table 1: Demographic Characteristics of Respondents (n = 46)

Category	Details	Frequency	Percentage
1. Age	18-25 years	11	23.9
	26-33 years	19	41.3
	34 and above	16	34.8
2. Marital Status	Married	39	84.8
	Single	7	15.2
3. Religion	Christianity	46	100

Table 1 showed that majority (41.3%) of the respondents was aged 26 to 33 years old. Most of the respondents were married (84.8%). All (100%) the respondents practiced Christianity.

Research Question 1: What are the perceived mother-related factors influencing compliance to antenatal care among pregnant women attending primary health care centre world bank Umuahia Abia State.?

Items 4 to 6 were analyzed to answer research question 1.

Table 2: Mother -related factors influencing compliance to antenatal care n = 46

Category	No.	Questions	SA [4] f	A [3] f	D [2] f	SD[1] F	Mean	Grade
Mother related factors	**4**	I live very far from clinic and is affection my compliance to ANC	28	11	1	0	3.10	Sig
	5	My educational level affects my compliance to ANC	9	11	15	11	2.30	Not Sig
	6	I am always thinking of how to pay for my antenatal services	5	34	4	2	2.80	Sig.
		Grand mean					**2.70**	**sig.**

Decision rule: Mean > 2.5 = Significant; Mean < 2.5 = Not Significant

Generally, Table 2 demonstrated that the respondents perceived that mother related factors had significant influence on compliance to ANC (Grand mean 2.7). Nevertheless, the respondents perceived that educational level do not affect compliance to ANC (mean 2.30).

Research Question 2: What are the perceived hospital -related factors influencing compliance to antenatal care among pregnant women attending primary health care centre World Bank Umuahia Abia State?

Table 3: Hospital -related -related factors influencing compliance to ANC services (n = 46)

Category	No.	Questions	SA [4] F	A [3] f	D [2] f	SD[1] F	Mean	Grade
Hospital related factors	**7**	The cost of antenatal service is high	19	8	16	13	3.1	Sig.
	8	The hospital environment is neat and attractive	9	9	12	16	2.20	Not Sig.
	9	The clinic is too far from my house	7	33	3	2	2.93	Sig.
		Mean					**2.7**	**Sig.**

Decision rule: Mean > 2.5 =Significant; Mean < 2.5 = Not Significant

Generally, Table 3 showed that the respondents perceived that hospital-related factors had a significant influence on compliance to ANC services (mean 2.7). The respondents perceived that the cost of antenatal service is high (mean 3.1) and the clinic is too far from their houses (mean 2.9).

Research Question 3: What are the perceived health worker -related factors influencing compliance to antenatal care among pregnant women attending primary health care centre World Bank Umuahia Abia State?

Items 10 to 12 were analyzed to answer research question 3.

Table 4: Health worker -related factors influencing compliance to antenatal care (n= 46)

Category	No.	Questions	SA [4] f	A [3] f	D [2} f	SD[1} f	Mean	Grade
Health worker related factors	**10**	There is cordial relationship between the midwives and pregnant women	12	6	6	22	2.1	Not sig.
	11	Midwives do always scold pregnant mothers	5	34	4	2	2.8	Sig.
	12	Midwives uses visual aid in health education	9	8	16	13	2.2	Not Sig.
		Mean					**2.3**	**Not Sig.**

Decision rule: Mean > 2.5 = Significant; Mean < 2.5 = Not Significant

Generally, Table 4 revealed that the respondents perceived health worker-related factors as not a significant factors influencing compliance to antenatal (mean 2.3). The respondents perceived that cordial relationship between the midwives and pregnant women (mean 2.1) and midwives using of visual aid in health education (mean 2.2) had no significant influence on compliance to antenatal care services. Scolding of the pregnant mothers by midwives had significant influence on compliance to antenatal care services (mean 2.8).

Discussion

Research Question 1: What are the perceived mother-related factors influencing compliance to antenatal care among pregnant women attending primary health care centre world bank Umuahia Abia State.?

The present study found that the respondents perceived that mother related factors had significant influence on compliance to ANC (Grand mean 2.7). Nevertheless, the respondents perceived that educational level do not affect compliance to ANC (mean 2.30). The present finding was in agreement Teka who in a study on the factors influencing antenatal Care Service Utilization Among Pregnant Women in Pastoralist Community in Menit-Shasha District, Ethiopia found that utilization of antenatal care was influenced by the residential distance from health post [4]. The convergence in findings may be linked to design used. Both studies used cross sectional descriptive design. The study was not in line with Sali, *et al* who investigated on factors associated with barriers in the number of antenatal care service visits among pregnant women in rural parts of Ethiopia, found that low education influence utilization of antennal care service [5]. The divergence in the finding may be attributed to the location of the studies. The present study was done in Abia state in Nigeria while Sali, *et al* study was done in Ethiopia [5].

Research Question 2: What are the perceived hospital -related factors influencing compliance to antenatal care among pregnant women attending primary health care centre world bank Umuahia Abia State.?

The present study showed that the respondents perceived that hospital-related factors had a significant influence on compliance to ANC services (mean 2.7). The respondents perceived that the cost of antenatal service is high (mean 3.1) and the clinic is too far from their houses (mean 2.9). This finding would imply that cost of antenatal care service and the location of the clinic affect the rate of compliance to antenatal care. The present finding was in agreement with Teka who in a study on the factors influencing antenatal Care Service Utilization Among Pregnant Women in Pastoralist Community in Menit-Shasha District, Ethiopia found that utilization of antenatal care was influenced by the residential distance from health post [4]. The convergence in findings may be linked to design used. Both studies used cross sectional descriptive design. The present finding was also in agreement with Okedo-Alex and Akamike who investigated on the determinants of antenatal care (ANC) utilization in sub-Saharan Africa found that high cost of service affect utilization [7]. The similarity in the findings may be linked to the location. Both studies were done in Africa countries.

Research Question 3: What are the perceived health worker -related factors influencing compliance to antenatal care among pregnant women attending primary health care centre world bank Umuahia Abia State?

The present study revealed that the respondents perceived health worker-related factors as not a significant factors influencing compliance to antenatal (mean 2.3). The respondents perceived that cordial relationship between the midwives and pregnant women (mean 2.1) and midwives using of visual aid in health education (mean 2.2) had no significant influence on compliance to antenatal care services. Scolding of the pregnant mothers by midwives had significant influence on compliance to antenatal care services (mean 2.8) This finding was not supported by Okedo-Alex and Akamike who investigated on the determinants of antenatal care (ANC) utilization in sub-Saharan Africa found that good personal relationship influence compliance to antenatal care positively [7]. Cordial relationship improves the rate of antenatal visit by pregnant women. The divergence in the studies may be linked to the locations of the study. The present study was done in Abia State, Nigeria while Alex and Akamike was done in sub-Saharan Africa.

Conclusion

This study thus concluded that perceive factors influencing compliance to antennal care visit were mother- related factors and hospital related factors, however, health care related factors was not significant (mean = 2.3) although scolding of pregnant mother by health care workers was identified as significant factor that affect compliance (mean = 2.8).

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