

## MOTHERS PERCEPTION AND SATISFACTION WITH ANTENATAL CARE SERVICES: A FACILITY-BASED STUDY IN DUSTIN-MA NIGERIA

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### ABSTRACT

*Based on research, it was observed globally that a woman dies every minute from complications related to pregnancy and child birth. Pregnant mothers experience life threatening conditions such as; Hemorrhage, Eclampsia, Pregnancy induced hypertension, Vesico vagina fistula and maternal death in a more severe condition. The use of maternal health service is an effective approach to reduce the risk of maternal mortality and improve the quality of life. Antenatal care, delivery care and post- partum care can however lead to a reduction in maternal mortality and morbidity through early detection and prompt management of potential complication. This study determined the factors influencing utilization of maternal health services demographically and results obtained revealed how mothers can improvise using identified coping strategies accessible in Primary Health Care Dustin-MA, Kastina State. An exploratory survey design was used for the study. Subjects were women of child bearing age attending PHC Dustin-MA, Kastina State; with the target population between the ages being 15-49years. The convenient and non-probability sampling technique was employed and this was carried out at the convenience of the mothers and their availability to the antenatal care unit. Structured questionnaire was the tool for data collection. Demographic and socio economic factors in the utilization of maternal health services were examined. Results plainly showed that maternal age and level of education significantly affect the utilization of maternal health services. Results therefore suggest conception at a well matured age as well as adequate and continuous antenatal education for women of child bearing age.*

**KEYWORDS:** Maternal health, antenatal, knowledge, utilization

## INTRODUCTION

Primary Health Care forms the bedrock of the health-care services of a country. It is the quality of health care available to the majority of the population that determines the health status of the country and is the best indicator for the level of social development of the country (31). The important conditions of Primary Health-Care Services are that, they should be: Efficient with regard to cost, techniques and organization; readily accessible to those concerned; Acceptable to the community served; at a reasonable cost (2, 3, 11). Health-care services should be available in a manner and language that is suitable to the community and population it serves and accommodating to local traditions and customs, at a price which the population can afford. Patient satisfaction has been linked to increased patient compliance, continuity of care, better clinical outcomes, greater service utilization and risk management (8, 16, 19, 21). Patient satisfaction is thus a key marker for the quality of health-care delivery and an important indicator for evaluation and improvement of health-care services. Studies of Patient Satisfaction in health care originated in the USA during the 1950s showed that earliest studies attempted to identify patient characteristics such as age, gender and race to predict patient satisfaction levels (4, 5, 8, 9). Another group of studies analysed health-care attributes such as nursing care, physician care, etc. to identify attributes that influence overall patient satisfaction (6, 7, 10, 31).

Globally, a woman die every minute from complications related to pregnancy and child birth (26). According to world health organization in 2011, maternal health is the health of a woman during pregnancy, child birth, post-partum period and maintaining the health and general wellbeing of a woman from pregnancy through birth and six weeks after birth. The use of anti-natal service is an effective approach to reduce the risk of maternal mortality and improve the quality of life (31). Antenatal care, delivery care and post-partum care can lead to a reduction in maternal mortality and morbidity through early detection and prompt management of potential complication (11). Improvement on ante-natal service is important for women's advancement, although, low access and under-utilization of maternal care leave women vulnerable and under-served (27). Women die from preventable causes related to pregnancy, child birth and 99% of these maternal death occur in developing countries. The cause of maternal mortality varies from place to place (17). In America, there is an on-going program that provides care for the mother after six weeks of delivery. However, most maternal mortality and morbidity occur after delivery due to the decreased number of midwives. Most preventable maternal death occurs due to lack of expertise especially during postpartum period (19). Severe bleeding, high blood pressure and infection are the most contributors to maternal death (30). It fares worse in preventing pregnancy related deaths despite the participation in Millennium development goals [MDGs]. The maternal mortality ratio remains 17 per 100,000 live births (12). Also, to *Rohini et al.*, in 2022, they stressed on the importance of a health care team noting that multiple factors influence the high rate

of maternal mortality including the woman's age at first birth and systemic conditions such as hypertension, diabetes, and coronary artery disease (30). An ideal health team in her view would include physicians, nurses, obstetricians, cardiologists and midwives. In China, every mother and child has the right to a positive and safe birth experience (2). The advance of ante-natal service has greatly reduced maternal mortality rate. The success has been attributed to improved living standards, public health measures, and a good access to health services (24). However, there are still women who die from preventable causes related to pregnancy. The maternal mortality rate increased in rural areas and poorer communities with the leading cause of death as unsafe abortion, infection and obstructed labor which can be prevented and treated with adequate and skilled health care that focuses on mother's health during pregnancy, delivery and post-partum period (8, 13, 14, 18). The purpose of this study is to look into the factors influencing utilization of ante-natal care services at PHC, Dutin-ma, considering the mother perspective and satisfaction level. In Nigeria, ante-natal service is comprehensive as it includes educational, social, nutritional services as well as medical care during and post-partum period. Cultural, spiritual, and socio-economic factors affect the utilization of maternal health services thereby increasing the maternal mortality rate (25, 28). Maternal mortality was estimated to be 800 deaths per 100,000 live births in 2015 which is due to delay in making prompt decision to seek maternal health services, delay in locating and arriving at the medical facility and delay in receiving skilled maternal care when the woman get to the facility (1, 26). The three delays brought about the goal to improve the accessibility, availability, affordability and care quality in primary health care facilities (15). In Dutsin-ma, Kastina State of Nigeria, a free maternal health service was launched against the high maternal mortality and morbidity due to limited manpower and inadequate facilities to properly manage maternal conditions

## **MATERIALS AND METHODS**

### **Subjects**

The data for the study was obtained from pregnant women attending ante-natal care services at primary health care, Dutin-ma, specifically, 100 mothers of 15-49 years of age bracket. An exploratory survey design was used for the study. The design does not involve any manipulation, provides an efficient and accurate means of assessing information about the population of interest. It intended to examine mothers' perception and satisfaction with ante natal care services in primary health care. The sampling technique used was convenient non probability sampling technique and this was carried out at the convenience of the mothers and their availability to the antenatal care unit. Instrument for data collection was from both primary and secondary sources. The primary source included a well-structured questionnaire which was used to elicit information on the perception and satisfaction of ante-natal care services. The secondary source of data collection was from textbooks, journals and scholarly materials. Study

involved sharing hundred [100] questionnaire among the respondents, response from questionnaire were collected and analysed. Qualitative studies used assess women perception, barriers as well as attitudes towards seeking maternal health care services using the demographic factors of age, parity, and maternal education, family income and employment status.

### **Age**

Women's age have an influence on the use of ante-natal care services. Younger women are open to new ideas or better informed about maternal health service while older women may have culture biases against formal health care. Accumulated knowledge on maternal health have more confidence about pregnancy and child birth or less comfortable with modern medicine more reluctant to take advantage of available services and give less importance to use of maternal services (24). Another study found that the place of delivery utilization does not differ significantly with the age of the mother (14).

### **Parity**

There is a strong association between number of birth and utilization of ante-natal care services. The uncertainty and perception of risk associated with first pregnancies causes women to seek medical attention for the first birth than subsequent ones (15, 18). Navaneetham and Dharmalingan in 2022 showed in their study that women with parity of four and above receiving antenatal care were reduced by 60% compared to parity of two. They noticed that there was no statistical significant difference in the likelihood of obtaining antenatal care between women that had their first and second births. Women who had first birth were almost two to three times more likely to deliver in health facilities and use skilled attendants at delivery than those with second births, while those with four and above births were less likely to use any of the services (27).

### **Women's Education**

Many studies have consistently shown maternal education to be strongly and positively associated with utilization of maternal health service and consistently associated with improved health outcome as they better able to comprehend the importance of receiving maternal health services and where to get them (30). It is argued that there are other factors such as place of residence, socio- economic status, husband's education among others interact to dilute the strong effect of education on the utilization of maternal health services (30).

### **Family Income**

It is recognized that increased income positively affects utilization of ante natal care services (12). Women from poor families or those with limited financial resources have difficulty paying for transportation, user fee [formal or informal], medications and other supplies available in the primary health care (11). Results show that removal of user fees can have positive impact on utilization of maternal health services in some cases among the poorest. The removal of user fees in Niger state in 2006 doubled antenatal care visits, birth in hospital rose to 61% utilization

rates in government facilities increased by 50% and proportionately more among the poor, while in Nigeria, introduction of user fees drastically declined the hospital births(15, 19). Studies have also shown that women are more likely to use maternal health services when they have control over finances(26).

### Employment Status

Women who are working and earning money will have better financial ability to pay for services. The contextual differences in women's employment status have presented mixed results in the association between employment and maternal health service utilization(13, 18). A study by Sari *et al.*, in 2011 found that antenatal care visit tend to start earlier for women in paid employment (31). Evidence suggests that women employment has a positive effect on maternal health and is associated with reduced maternal morbidity and mortality. In Nepal, it has been found that working women are more likely to use some maternal health services than non-working women (24).On the contrary,research showed that non-working women were four times more likely to die from causes related to pregnancy and child birth than those who are working.

## RESULTS

The results of the findings from this study are presented in the tables below.

Table 1: Age of Respondents

Variables (Years)	Frequency (F)	Percentage (%)
15 - 24	20	20%
25 - 32	50	50%
33 - 40	16	16%
41 - 49	14	14%
<b>Total</b>	<b>100</b>	<b>100%</b>

The data shows that 50% are within the age of 25 -32 years, 20% are within the age of 15 - 24 years, 16% are within the age of 33 – 40 years while 14% are within the age of 41 – 49 years. Analysis indicates that most of the respondents are young adults.

Table 2: marital status

Variable	Frequency (F)	Percentage (%)
Single	20	20
Married	70	70
Divorce	10	10
<b>TOTAL</b>	<b>100</b>	<b>100%</b>

The data shows that 70% of the respondents are married, 20% are single mothers, 10% are Divorced. Analysis indicate that majority of the respondents are married.

Table 3: Numbers of children

Variable	Frequency (F)	Percentage (%)
1	15	15%
2	23	23%
3	26	26%
4 and above	36	36%
<b>TOTAL</b>	<b>100</b>	<b>100%</b>

The data shows that 36% have four and above number of children, 26% have three children, 23% have two children while, 15% have a child.

Analysis indicates that majority of the respondents are multi porous women.

Table 4: Level of Knowledge of mothers on antenatal service at Dutsin ma Primary Health Care

S/N	Statement	Responses	Frequency	Percentage
1.	Maternal health services are given to women of child bearing age?	True	91	91%
		False	9	9%
	<b>Total</b>		<b>100</b>	<b>100%</b>
2.	Maternal health services help to ensure the wellbeing of both mother and child?	True	87	87%
		False	33	33%
	<b>Total</b>		<b>100</b>	<b>100%</b>
3.	Antenatal care helps to detect early abnormalities during pregnancy	True	81	81%
		False	29	29%
	<b>Total</b>		<b>372</b>	<b>100%</b>
4.	Adequate care are rendered during delivery and after delivery?	True	74	574%
		False	36	36%
	<b>Total</b>		<b>100</b>	<b>100%</b>

Analysis of the above data shows that 91% choose true while 9% choose false, that maternal health services are given to women within child bearing age. The data above shows that 87% choose true while 33% choose false, that maternal health services help to ensure the well-being of both mother and child. The data above shows that 81% choose true while 96% choose false, that antenatal care helps to detect early abnormalities during pregnancy. The data above shows that 74% choose true while 36% choose false, that adequate care is rendered during and after delivery.

Table 5: Level of satisfaction of mothers on ante-natal services provided at Dutsin ma Primary Health care

S/N	Statement	Responses	Frequency	Percentage
1.	Are you satisfied with the antenatal services?	Yes	68	68%
		No	32	32%
	<b>Total</b>		<b>100</b>	<b>100%</b>
2.	Did you enjoy the interaction with the health workers?	Yes	66	66%
		No	34	34%
	<b>Total</b>		<b>100</b>	<b>100%</b>
3.	Was the environment conducive?	Yes	49	59%
		No	51	51%
	<b>Total</b>		<b>100</b>	<b>100%</b>
4.	Are you satisfied with the charges?	Yes	71	71%
		No	29	29%
	<b>Total</b>		<b>100</b>	<b>100%</b>

Analysis of the table above shows that 68% choose yes while 32% choose No, which implies that mothers are satisfied with the antenatal services provided in Dutsin-ma Primary Health Care. The above data shows that 66% choose Yes while 34% choose No, which implies that mothers enjoyed the interaction with the health workers in Dutsin-ma Primary Health care. The above data shows that 42% choose Yes while 58% choose No, which implies that the environment was not conducive for antenatal services. The above data shows that 71% choose Yes while 29% choose No, which implies that mothers are satisfied with the charges for services provided in Dutsin-ma Primary Health care.



Table 6: Utilization of Maternal Health services provided in Dutsin ma Primary Health Care

Variable	Frequency	Percentage
<b>Do you attend the antenatal care regularly?</b>		
Yes	64	64%
No	25	25%
Fairly	11	11%
<b>Total</b>	100	100%
<b>At what trimester did you register for antenatal care?</b>		
1 <sup>st</sup> Trimester	63	63%
2 <sup>nd</sup> Trimester	33	33%
3 <sup>rd</sup> Trimester	4	4%
<b>Total</b>	100	100%
<b>What was the number of times you attended antenatal care in your last pregnancy?</b>		

≤4	13	13%
4-7	28	28%
≥8	59	59%
<b>Total</b>	100	100%
<b>Were you able to access any support services such as social services or counselling, during your pregnancy?</b>		
Yes	27	27%
No	39	39%
Fairly	34	34%
<b>Total</b>	100	100%
<b>What are the challenges you faced in during antenatal care?</b>		
Lack of drugs and materials	45	25.86%
Nurses and Doctors attitude	57	32.75%
Cultural practices	72	41.37%
<b>Total</b>	174	100

The above data shows that 64% choose Yes while 25% choose No, and 11% choose fairly which implies that mothers attend the antenatal care regularly. And 63% registered at their 1st trimester and 33% at the 2nd trimester, and 4% registered at the 3rd trimester. 13% of the mothers attended the antenatal care less than 4 times during their last pregnancy, 28% attended four to seven times in their last pregnancy, and 59% attended more than eight times during their last pregnancy. The above data also shows that 27% choose Yes that they Were able to access support services such as social services and counselling, during their pregnancy, and 39% chose No and 34% choose fairly for the challenges faced during antenatal care, where mothers were allowed to choose more than one options.

## DISCUSSION OF FINDINGS

Results from the findings of this research shows that most of the respondents are young adults based on the percentage of the sample of 50%, Who are within the ages of 25 -32 years, This implies that the young women are more likely to utilize maternal health services. The analysis was supported by some research work which says that younger women are more open to new ideas or are better informed about maternal health service (8, 13, 14). 36%

of the respondents are multiparous women. The analysis was supported by some studies which revealed that women seek maternal health services for their first birth than subsequent births because of experience (11, 20, 27). 81% of the respondents agreed that antenatal care helps to detect early abnormalities during pregnancy. The analysis was supported by Kamalet *al.*, 2011 which says antenatal care provides means to detect any form of abnormalities and prompt treatment of condition which improves maternal health outcome resulting in the reduction of maternal and infant mortality (24). The satisfactory situation of the educational attainment of the respondents reflects that educational facilities were not only accessible but also affordable to the people. The study done by Rohiniet *al.*, in 2013 revealed that maternal education has a strong and positive impact on the utilization of maternal health services (30). Majority of the respondents are multiparous women which revealed the strong association between number of birth and utilization of maternal health services. This was affirmed by some studies which revealed that women seek medical attention at first birth than subsequent births (12, 25, 29). The findings of the study revealed that utilization of maternal health services presently is high. The result conforms to the study done by another where 80% of the respondents used maternal health services because it was not only accessible but affordable (26). The study revealed that majority of the respondents registered for antenatal during their early trimester. This was affirmed by a study done by McGillivray *et al.*, in 2018 which revealed that antenatal care helps to ensure that both mother and child are safe during the period of pregnancy (25). Majority of the respondents had more three visits to the antenatal care clinic. This conforms to the study done by Ashley *et al.*, in 2021 which revealed that antenatal care clinic provides opportunities for broad range of services (8). The findings of the study revealed that the respondents made use of health facilities during delivery. This was affirmed by a study done by Njokuet *al.*, in 2021 which revealed that usage of health facilities helps to provide prompt health care delivery. The study revealed that the respondents made use of maternal health services during pregnancy. The level of utilization includes; antenatal care, delivery and post-partum care. The study was affirmed by Njokuet *al.*, in 2021 which showed that adequate care was rendered before, during and after pregnancy which ensure the safety of both mother and child (28). This study showed that majority of the respondents agreed that antenatal care helps to detect early abnormalities during pregnancy. The study was affirmed by a study done by Mirkuzieet *al.*, in 2013 which revealed that antenatal care given to pregnant women helps to ensure that they have safe pregnancy and healthy babies (26). The satisfactory situation of the care rendered during and after delivery [80%] reflects that there is adequate utilization of maternal health services. This was confirmed by a study done by McGillivray *et al.*, in 2018 which revealed that care helps to ensure the welling being of both mother and child (25). The findings of the study also revealed that there was administration of five doses of tetanus toxoid vaccines. This was in line with the study done by Njokuet *al.*, 2021 which revealed that broad range of services including administration of tetanus toxoid vaccine helps to reduce the risk of complication (28).

This study is plainly on pregnant women attending antenatal care services at primary health care, Dutin-ma, Kastina State, regardless of their race, education and occupation which might reduce the likelihood of confounding by the important sociodemographic characteristics employed.

Conclusively, the results obtained showed that maternal age and level of education significantly affect the utilization of maternal health services. Results therefore suggest conception at a well matured age as well as adequate and continuous antenatal education for women of child bearing age.

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