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# SOCIO-DEMOGRAPHIC CHARACTERISTICS OF PREGNANT WOMEN AND PERCEPTION OF THE QUALITY OF ANTENATAL SERVICES PROVIDED BY MIDWIVES IN SOUTH- SOUTH, NIGERIA

PHOEBE NWAMAKA KANIKWU & EDITH NKECHI CHIEJINA

## ABSTRACT

*Pregnant women's perception is a reliable means of assessing quality of antenatal service delivery. Age, level of education, occupation and religion are very important health indicators that can influence perception. A cross sectional survey design is used for this study. 1500 pregnant women attending government-owned antenatal clinics were selected using multi-stage sampling technique. Data collected using the researchers-developed questionnaires were summarized with simple frequencies, percentages, mean and standard deviation. The result of the socio-demographic Characteristics of the respondents revealed that majority were within ages 25-31 years and their level of education is tertiary with business/trading as occupation. Lastly, the majority were Christians. The hypothesis tested revealed that there was no significant influence between the pregnant women's perception of the quality of antenatal services and the socio-demographic characteristics such as age ( $k = 3.20$ ,  $p$ -value = 0.53); level of education ( $k = 1.52$ ,  $p$ -value = 0.68); occupation ( $k = 2.18$ ,  $p$ -value = 0.70); and religion ( $k = 3.52$ ,  $p$ -value = 0.17). Further findings indicated that pregnant women had positive perception about the quality of antenatal services provided by midwives ( $\bar{x} = 3.52$ ). It is therefore recommended that Midwives should organize a regular forum to get feedback from pregnant women regarding the quality of antenatal services they provide.*

**Keyword:** Perception; socio-demographic characteristics; quality antenatal services

## INTRODUCTION

The third goal in Sustainable Development Goals (SDG) is “ensure healthy lives and promote well-being for all at all ages” (United Nations Development Programme, 2019). Precisely, target 3.1 of SDG aims at reducing the global maternal mortality ratio to less than 70 per 100 000 live births by year 2030 (United Nations, 2018). Mundodan (2015) stated that one way to achieve this target is by ensuring that the quality of antenatal care provided by available health facilities is good enough for patronage. Health service consumers are bound to make the choice of where to receive health care based on some factors Uchendu, Ilesanmi & Olumide, (2013). For a pregnant woman, such factors typically include physical environment, information received during health education, waiting time, politeness and skill of service provider as well as overall care [Paudel, et al., \(2015\)](#).

Antenatal services can be defined as the series of care provided by trained health care providers including Midwives and Obstetricians, to enhance the outcome of pregnancy for the mother and her foetus(es) Osungbade, Shaahu & Uchendu, (2011). Interestingly, Midwives and Obstetrical Nurses are key healthcare professionals as well as make up a larger portion of the health workforce responsible for providing antenatal services in most countries Khomami, Walker, Kilpatrick, De Jersey, Skouteris. & Moran, (2021). Antenatal services are grouped into three categories Osazuwa, (2016). The first is screening for health and socioeconomic factors likely to have a negative effect on the pregnancy. This is done from the first visit. The

second is to offer specific treatment when an abnormal condition is identified, while the third is education centred on what to expect in pregnancy, symptoms that may suggest problems and preparations for childbirth.

Nigeria with maternal mortality ratio (MMR) of 814 per 100,000 live births compared to global average of 210 Fagbamigbe & Idemudia, (2015) requires improvement both in ANC coverage and in the quality of antenatal service delivery. Existing studies have documented the fact that ANC coverage has improved in Nigeria (Federal Ministry of Health, 2013) which can be attributed to free antenatal services rendered in some parts of the country Akanbiemu, Manuwa-Olumide, Fagbamigbe & Adebowale, (2013). Unfortunately, increased ANC coverage has not translated to quality antenatal service delivery in Nigeria Fagbamigbe & Idemudia, (2015). According to the World Health Organization (2017) quality of care refers to the extent to which health care services provided to a client or patient improves desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people centred (WHO, 2018).

Perception of the people seeking care is one of the most important qualitative indices of health care provision and has a very special importance in antenatal care Mohammed & Amal, (2015). Therefore, while increasing service availability and maintaining acceptable quality standards, it is important to assess maternal perception with care in order to make it more responsive and culturally acceptable, ultimately leading to enhanced utilization and improved outcomes. Simultaneously, it is necessary to assess socio-demographic characteristics such as age, level of education, religion and occupation that play significant role and have been occasionally linked to the perception of clients about the quality of care received Moron-Duarte, Varela, Bertoldi, Domingues, Wehrmeister & Silveira, (2015).

Many Health Care Facility Administrators are becoming increasingly concerned about providing quality service to their

clients/patients and rely on clients/patients' feedback based on their perceptions of service quality. It is against this background that the researchers decided to determine the influence of pregnant women's socio-demographic characteristics on perception of the quality of antenatal services provided by midwives in government-owned health care facilities in South-South, Nigeria, as a helpful approach to improving utilization and enhancing the facilities reputation.

### **Objective of the study**

The objective of this study was to determine the association between the pregnant women's socio-demographic characteristics and their perception of the quality of antenatal services provided by midwives at government-owned health care facilities in South-South, Nigeria.

### **METHODOLOGY**

This study is a cross sectional survey research design. The study took place in the Government-owned primary, secondary and tertiary level health care facilities in the South-South geopolitical zone of Nigeria. The six (6) States that comprise the South-South geopolitical zone are Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers State. The population of the study consisted of all pregnant women attending antenatal clinic in all the primary, secondary and tertiary level government-owned health care facilities in the six States of the south-south geopolitical zone of Nigeria.

All pregnant women in the first, second or third trimester, who were at least 18years of age, receiving antenatal service on out-patient basis in government-owned health care facilities in south-south Nigeria and were willing to participate in the study were recruited. Multi-stage sampling technique was used to select 1500 pregnant women for the study. In the first stage, purposive sampling was used to select one tertiary level health care facility in the States that have only one (Akwa Ibom and Cross River States). In the second stage, simple random

sampling technique was adopted in selecting one tertiary level health care facility from each of the four States which have more than one (Bayelsa, Delta, Edo and Rivers States).

In the third stage, simple random sampling technique was used to select two secondary and two primary level health care facilities from each state.

This technique ensured that each health care facility had equal chance of being selected within the group. This gave a total of 30 health care facilities namely twelve primary, twelve secondary and six tertiary health care facilities selected from across the six States. In the fourth stage, simple random sampling technique was used to select 50 pregnant women from each of the selected 30 government-owned health facilities. This technique allowed every pregnant woman in each facility to have equal opportunity of being selected for the study.

A Questionnaire on Quality Antenatal Services (QQANS) developed by the researchers based on WHO (2018) model on Quality Health Care Services (namely safety, effectiveness, timeliness, equitability, efficiency and people centredness) was used for data collection in this study. QQANS comprises two (2) sections (Sections A and B). Section A elicited information on the socio-demographic characteristics of the respondents and Section B comprised items on a five-point rating scale that were used to elicit information on quality of antenatal care under the six (6) domains namely; safety (the working area of the midwife is clean, the waiting area is clean, the toilets are clean), effectiveness (antenatal care received is in preparation for safe delivery, screening procedures performed during antenatal visit were to detect abnormalities, the treatments offered during antenatal visit are important, an so on), timeliness (example, midwives were not in a hurry when providing care, time spent at antenatal clinic per visit is not long, waiting time is not prolonged by the lateness of the midwife, an so on), equitability (example all pregnant women get seated during antenatal teaching sessions, health education is

done using simple and understandable terms, cost of registration for antenatal care in this centre is affordable, and so on), efficiency (midwife explained the importance of HIV test, received tetanus toxoid injection, midwife offered intermittent preventive treatment of malaria to pregnant women (IPTp)), and provision of people-centred antenatal services (was treated with courtesy/respect; being involved in decision making, records were safely kept by midwife, etc.) as perceived by the respondents. Section B of QQANS was designed into five-point rating scale namely: strongly Agree = 5points, Agree = 4points, Uncertain = 3points, Disagree = 2points and Strongly Disagree = 1point.

The questionnaire was validated by three (3) experts. One was Deputy Director of Nursing Services in antenatal clinic from Federal Medical Centre, Asaba. The other two (2) were lecturers in Maternal and Child Health Nursing specialty from Nnamdi Azikiwe University, Nnewi Campus and Measurement and Evaluation unit from Nnamdi Azikiwe University, Awka. The reliability of the instrument was established among one hundred and fifty (150) respondents through test-retest method at two (2) weeks interval in the antenatal clinics of Irrua Specialist Teaching Hospital, Irrua, General Hospital, Obiaruku and Primary Health Centre, Agudama-Epie. The Cronbach alpha coefficient obtained was 0.738. Copies of the questionnaire were administered face to face by the researchers and Two (2) registered nurse-midwives in each tertiary and secondary facility as well as one (1) registered nurse-midwife in each Primary Health Facility.

The research assistants were instructed on how to assist the researchers in the administration, interpretation and retrieval of the questionnaire. The completed copies of the questionnaire were retrieved on the spot. A total of 1500 copies of the questionnaire were administered to the respondents and there was 100% return rate. The data collection lasted for a period of two (2) months. Ethical approval for the study was obtained from the Health Research Ethics

Committee of the Ministries of Health of Akwa Ibom State, Bayelsa State, Cross River State, Delta State, Edo State, and Rivers State.

The researchers obtained informed consent from the health facility heads to be allowed access to the respondents. Also informed consent was obtained from the respondents who were also informed that their participation in the study was voluntary. The respondents were assured of anonymity, privacy and confidentiality during and after data collection. Data collected from QQANS were analyzed using frequencies, percentages, mean and standard deviation. The research questions were answered using mean. Mean score of 3 and above indicated positive perception and a mean score below 3 indicated negative perception. Kruskal-Wallis test was used to determine the association between socio-demographic characteristics and the perception of quality of antenatal services. All the hypotheses were tested at 0.05 level of significance. The data analysis was done using Statistical Package for Social Sciences

(SPSS) version 22. All the results were presented in tables.

**RESULTS**

Table 1 shows that majority 914 (60.93%) of the respondents were within the age bracket of 25-31years, while minority 26 (1.74%) were aged 39years and above. 880 (58.67%) of the respondents had tertiary level of education, while the least number 2 (0.13%) had non-formal level of education. The occupation of 510 (34%) respondents was business/trading, while 14 (0.93%) were farmers. 1457 (97.13%) of the respondents were Christians, while a few 13 (0.87%) practiced Traditional African Religion. The socio-demographic Characteristics of this study shows that the majority of the respondents were within ages 25-31 years and their level of education is tertiary with business/trading as occupation. Lastly, majority of the respondents were Christians.

**Table 1: Socio-demographic Characteristics of the Pregnant Women. n=1500**

S/N	Variables	Variable Classification	Frequency	Percentage
1.	Age (in years)	18-24	296	19.73
		25-31	914	60.93
		32-38	264	17.60
		39-45	13	0.87
		46 and above	13	0.87
2.	Level of education	Non-formal	2	0.13
		Primary	43	2.87
		Secondary	575	38.33
		Tertiary	880	58.67
3.	Occupation	Nil	499	33.27
		Farming	14	0.93
		Artisan	72	4.80
		Business/Trading	510	34
		Employed	405	27
4.	Religion	Christianity	1457	97.13
		Islam	30	2.00
		Traditional African	13	0.87

Table 2 revealed that there were no significant associations between the pregnant women's perception of the quality of antenatal services and their age (k = 3.20, p-value = 0.53); level of

education (k = 1.52, p-value = 0.68); occupation (k = 2.18, p-value = 0.70); as well as religion (k = 3.52, p-value = 0.17).

**Table 2: Kruskal -Wallis test result showing the Association between Socio - demographic Characteristics of Pregnant Women and Perception of Quality of Antenatal Services Provided by Midwives**

SCORES	MEAN RANKS					K	P
	AGE						
Perception of quality of antenatal services	18-24	25-31	32-38	39-45	≥46		
Total perception score	767.4	748.8	750.5	672.5	569.3	3.20	0.53
	Level of education						
Perception of quality of antenatal services	Non-formal	Primary	secondary	Tertiary			
Total perception score	1118.8	739.3	753.7	748.5		1.52	0.68
	Occupation						
Perception of quality of antenatal services	Farming	Artisan	Bus./Trad	Employed			
Total perception score	NIL	628.0	731.6	765.7	746.8	2.18	0.70
	Religion						
Perception of quality of antenatal services	Christianity	Islam	Trad. Afr. Rel.				
Total perception score	753.3	706.6	537.8			3.52	0.17

In table 3, the overall average mean score for perception about the safety of antenatal services provided by Midwives = 3.72, perception about effectiveness of antenatal procedures performed by Midwives = 4.27, perception about timeliness in the provision of antenatal care by Midwives = 3.23, perception about equitability of antenatal services

provided by Midwives = 3.67, perception efficiency of Midwives in the provision of antenatal services = 3.89, perception about the provision of people-centred antenatal services by Midwives was 3.52. This study indicates that pregnant women had positive perception about the quality of antenatal services provided by Midwives (3.71).

**Table 3: Summary of Pregnant Women’s perception of the quality of antenatal services provided by midwives in government-owned health care facilities n=1500**

S/N	Domains of Pregnant Women’s Perception of Quality of Antenatal Services provided by Midwives	Mean	Std Dev.
1.	Perception of pregnant women about the safety of antenatal services provided by Midwives	3.72	1.03
2.	Perception of pregnant women on the effectiveness of antenatal procedures performed by Midwives	4.27	0.68
3.	Perception of pregnant women about timeliness in the provision of antenatal care by Midwives	3.23	1.17
4.	Perception of pregnant women about the equitability of antenatal services provided by Midwives	3.67	1.19
5.	Perception of pregnant women about the efficiency of Midwives in the provision of antenatal services	3.89	0.98
6.	Perception of pregnant women about the provision of people-centred antenatal services by Midwives	3.52	1.24
		<b>3.7</b>	<b>1.048</b>

**Discussion**

This study examined the Influence of Pregnant Women's Socio-Demographic Characteristics on Perception of the Quality of Antenatal Services Provided by Midwives in South-South, Nigeria. Findings of the socio-demographic Characteristics of this study revealed that many of the respondents are within ages 25-31 years and their level of education is tertiary with business/trading as occupation. Lastly, the majority are Christian. This study revealed that there was no significant influence between the pregnant women's perception of the quality of antenatal services and their age, level of education. Occupation, as well as religion This study supports Nwaeze, *et al.* (2013) who reported

that there was no significant association between occupation including educational level of pregnant women and their perception on antenatal care quality in Ibadan, Oyo State This study is in contrast with Fagbamigbe and Idemudia (2015) who noted that pregnant women's educational level significantly influenced their perception of antenatal care in South-West, Nigeria. The researchers' opined that despite the absence of significant influence between educational level and pregnant women perception on the quality of antenatal services, other factors like parity of pregnant women could influence their perception of the prenatal care they receive. They further believed the multiparous woman with no formal education could evaluate the antenatal

care she receives based on the care she had received in her previous pregnancy. Moreover, expectant women can use the information they obtain from peers to judge the quality of the antenatal care they are receiving.

Furthermore, this study indicated that majority of pregnant women has positive perception 3.52, indicating that pregnant women had positive perception about the quality of antenatal services provided by Midwives.

### **Implication for Nursing**

Pregnant women in South-South Nigeria generally had positive perception of the quality of antenatal services provided by midwives. This is a challenge to midwives to improve their skills in the antenatal services they render to pregnant women. The perception of pregnant women about the quality of antenatal services provided by midwives appears to be uninfluenced by their socio-demographic characteristics. This implies that socio-demographic characteristics had limited impact on perception of the quality of antenatal services which may have been expressed by the pregnant women in a general sense, even when they expressed negative perception in some specific items on perception of the quality of antenatal services.

### **CONCLUSION**

No significant association existed between the socio-demographic characteristics of pregnant women and their perception of the quality of antenatal services provided by midwives. The researchers recommend that Midwives in government-owned health care facilities should organize a regular forum to get feedback from pregnant women regarding the quality of antenatal services provided by midwives. This will serve as a means of periodically evaluating the quality of antenatal services provided by midwives for appropriate strategies geared towards sustenance of quality care to be instituted. Also, administrators of

government-owned health care facilities should make sufficient resources available for providers to offer client-friendly and client-centred care, thereby improving the overall quality of antenatal services.

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