

AN EXAMINATION OF THE QUALITY OF ANTE-NATAL CARE SERVICES ON MATERNAL MORTALITY IN DANDAGORO, BATAGARAWA LGA KATSINA STATE, NIGERIA

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Abstract

Antenatal care is one of the most essential care given to women during pregnancy. This study was carried out to assess the quality of antenatal care rendered to pregnant women attending antenatal clinic in primary health care Dandagoro, Batagarawa Local Government area. The research design was descriptive survey. The Study population are pregnant women attending Antenatal care at primary health care Dandagoro and Taro Yamani formula was used to determine the sample size of 137 which was selected through a simple random sampling technique. The socio-demographic data of this study revealed that majority of the respondents were between 21-30 years, most of them were Muslims, Hausa/Fulani and housewives. The results of this study showed that the quality of services rendered in primary health care Dandagoro, was good due to the fact that material resources were available but, no adequate human resources because majority of staff available are not skilled workers they are Community Health Extension Workers and other non-professionals. This study also reported that antenatal services are adequately utilized and majority of the women were satisfied with the services they received in the facility. It is therefore recommended that primary health care Dandagoro, Batagarawa Local Government area should serve as advocate to the local government and other nongovernmental organization to provide necessary facilities for the provision of quality antenatal care services.

Keywords: Antenatal Care, Pregnant Women, Primary Healthcare, Community Health Workers

Introduction

Globally, complications during pregnancy, childbirth and post-natal periods have been the leading causes of death and disability among reproductive age women. (Ashraf et al., 2017). As a result, 10.7 million maternal deaths are reported to occur before the age of 25 years globally. Thus 2.7 million neonatal death and 2.6 million still births were reported in the world from 1990-2015. (WHO, 2017). Additionally, nearly 99% of maternal deaths occurred in low- and middle-income countries particularly in south Asia and sub-Saharan Africa. In 2015, Nigeria's estimated maternal mortality ratio was over 800 maternal deaths per 100 000 live births, with approximately 58000 maternal deaths during the same year. By comparison, the total number of maternal deaths in 2015 in the 46 most developed country was 1700, resulting in maternal mortality ratio of 12 maternal deaths per 100 000 live births. In fact, a Nigerian woman has a 1 in 22 lifetime risk of dying during pregnancy, childbirth or postpartum/ post abortion. Whereas, in the most developed countries, the lifetime risk is 1: 4900. (WHO, 2020) The Nigerian Near-miss and Maternal Survey revealed that intra hospital quality of care issues, and delay in assessing the adequate level of care play major parts in the occurrence of maternal deaths. (WHO, 2020).

Maternal deaths can be reduced if women can access quality medical care during pregnancy, child birth and postpartum (WHO, 2017). The quality of care has an important role in prevention, monitoring, early

detection and treatment of maternal health problems, enhancing maternal satisfaction and health care utilization.

Maternal health care service in the health system constitutes a large range of curative and preventive health services of particular importance to the health of women of reproductive age and their infants. It includes population-based services such as attitudinal changes and health communication (e.g., promotion of ante-natal care) (Shehu, Abubakar, and Ukwu, 2018). Improving maternal health is one of the United Nations Millennium Development Goals. Obionu (2007) stated that the aim of Maternal health care services is to reduce maternal mortality and morbidity by ensuring that pregnant women remain healthy throughout pregnancy, have safe delivery of healthy babies and fully recover from physiological changes occurring during pregnancy. Hence, the use of maternal health services is an effective means of reducing the risks of maternal morbidity and mortality especially in places where the general health status of women is poor.

Obiageli et al, (2014) posited that Nigeria has high maternal and infant mortality and the country has embarked on measures to reform the health care system in recent years, this includes maternal health care (MCH) delivery, in a bid to attain Millennium Development Goals (4) and (5). Most healthcare reform efforts have been geared towards increasing

availability of health care services without commensurate increase in quality. Studies have also shown that increase in the availability of services does not always translate to improved access to health care hence for interventions to deliver optimally, there is need to ensure that quality of service is taken into consideration in the provision of maternal health service.

WHO defined quality health care to consist of proper performance according to standard. Antenatal care is an important part of preventive medicine and health care professionals providing these services can reduce the risk of complications through education, counselling and various interventions. Quality of health care is seen as a factor closely related to effectiveness, compliance and continuity of care, as patient's satisfaction has traditionally been linked to quality of service given and the extent to which specific needs are met. Satisfied patients are likely to come for the services and recommend services to others, (Asadi-Lari, Tamburini and Gray 2014).

In developing countries, including Nigeria, standard of quality of care are often set by health managers and care providers. Although there are several policies and guidelines to ensure quality of care, the extent to which they are adhered to is not well known. (Obiageli et al, 2014) Women's perception of antenatal visits significantly influences their assessment of quality services that are provided. As a result of this focus, measurement of customer's satisfaction has become equally important in assessing system performance. Various factors including attitude of staff, cost of care, time spent at hospitals and doctor's communications have been found to influence patient's satisfaction (Kamil and Koshrid 2013). In many resource limited settings, the little amount of focus on quality care has been from the health care providers view point with professional standards being used as the index of quality. However, studies have shown that perception of quality by pregnant women may be more concerned with other sensitive issues such as interpersonal relations with care providers, fulfilment of their information needs, birth positions and social support during labour.

Nikiema, Kameli and Capon, (2010) observed that most women who utilize antenatal care (ANC) services in sub-Saharan Africa do not receive adequate attention as care providers are overwhelmed by the number of pregnant women seeking ANC. Some writers have argued for the adoption of focused ANC in which case a woman attends ANC four times during pregnancy, at specific intervals for uncomplicated pregnancies. This allows for adequate attention to be given to each pregnant

woman and provides opportunity for monitoring high risk pregnancies. Advocates of this strategy believes that this will enhance quality of ANC services provided as well as reduce morbidity and mortality associated with high-risk pregnancies. (Mrisho et al, 2009).

Primary health care provides the entry point into the healthcare delivery system of the country and thus represents an ideal setting for prevention of pregnancy complications by identification of risk-prone pregnancies and provision of immediate linkage of high-risk women to specialist care. Information on the quality of the antenatal care services provided in the context of the primary health care system, therefore, can be used to improve on the responsiveness of the health system to the needs of the majority of pregnant Nigerian women. It is expected that this study will serve as baseline data for improving quality of antenatal care services in primary health care Dandagoro, and subsequently contributing to reduction of maternal mortality in the country by providing basic information which may be relevant to health care providers on how to take care of their clients. The aim of this research is therefore, to assess the quality of antenatal care services rendered to pregnant women attending primary health care Dandagoro Batagarawa LGA Katsina State. The quality of antenatal care services rendered to pregnant women will be determined in terms of availability of both material and human resources, utilization of ANC services by women, and women's satisfaction with antenatal care.

Objectives of the Study

1. To examine availability of material resources for providing quality antenatal care services in primary health care, Dandagoro.
2. To examine availability of human resources on the provision of antenatal care services in primary health care, Dandagoro.
3. To assess utilization of available antenatal care services among pregnant women attending Primary health care, Dandagoro.
4. To determine level of satisfaction with the quality of antenatal care services rendered to pregnant women attending antenatal clinic in primary health care, Dandagoro.

Research Questions

1. What effects have the quality of available material resources on antenatal care services to pregnant women?
2. What effects have the quality of available human resources on antenatal care services in Dandagoro LGA?

3. What is the contribution of the available antenatal care services to the well-being of pregnant women in Dandagoro LGA?
4. What is the level of satisfaction with the quality of antenatal care services among pregnant women attending Primary Health Care Dandagoro?

Methodology

The research design used in this study was descriptive. The study was conducted in primary health care Dandagoro. Dandagoro is located in the central part of Katsina State under Batagarawa Local Government Area. Dandagoro primary health care, is one of the few primary health care centres in Batagarawa Local Government area of Katsina State. Since the inception of primary health care centre, it caters for the health needs and promotion of Dandagoro community and neighbouring villages surrounding Dandagoro. It renders basic primary health care services ranging from immunization, procurement and distribution of essential drugs, pre- and antenatal care services, growth monitoring of infants and treatment of minor illnesses. It also refers complicated cases to secondary health care services located at the city and receive minor cases from other PHC's with less facility. It has staff strength of 1 nurse, 1 Community Health Officer (CHO), 9 Community Health Extension Workers (CHEWs) and others. It has bed capacity 30. The estimated population of the whole local government according to 2006 census is about 184,575 (NPC, 2006).

The Study population are pregnant women attending Antenatal care at primary health care Dandagoro. To determine the sample size for the study, Yamane 1967 formula was adopted. Therefore, the minimum sample size was 137. A simple random sampling technique was employed to select 137 respondents.

Questionnaire and checklist were used to collect data for the study. The questionnaires were used to obtain information from pregnant women to assess the quality of ANC services they enjoy from the centre. The questionnaire is divided into five sections, viz: Section A is on the demographic data; Section B is on Availability of Material Resources; Section C is on Availability of Human Resources; Section D is on Utilization of antenatal care services, while Section E is on Satisfaction of women with quality of ANC. The

checklist was used to assess the availability of human resources, and availability of material resources in primary health care centres in Dandagoro community. Validity and Reliability of the instrument was assessed by means of a pretest conducted among 10% of the sample, women attending antenatal clinic at another PHC using Cronbach alpha reliability method and yielded reliability coefficient of 0.8 hence the instrument was considered reliable and valid. Two trained research assistants were recruited to participate in the data collection. The selection criteria were attainment of the Certificate of Secondary Education and fluency in Hausa and English languages. They were first taken through the objectives and methodology of the study. The training also involved guidance on questionnaire administration. Data was collected using interviewer administered structured questionnaire and the check list.

Letter of introduction was obtained from the Department of nursing ABU, Zaria to the primary health care management for Permission, informed written consent was obtained from each respondent, after explanation on the purpose, procedure and benefits of the study. Confidentiality, self-respect and dignity of the respondents was assured. The respondents were briefed on the purpose of the study and confidentiality was assured, voluntarily consent, self-respect and dignity were also maintained. The data obtained was entered, cleaned and coding was done where necessary and analysis was carried out using SPSS version 23 software. Descriptive statistics (frequency, percentage) was used to describe socio-demographic characteristics of the respondents. Inferential statistics, t-test was used to test for significant differences. Decision was taken at alpha level $p < 0.05$.

Results

Table 1 showed the demographics of respondents, many of the respondents who participated in the study were between the age range of 21-30 years (57.2%). Majority of the respondents were Muslims with 82.9%. Hausa Fulani participated most in the study with percentage of 74.3%. Majority of the respondent's level of education was secondary education with 45.7%. Most of the respondents were housewives with percentage 42.9%.

Table 1: Socio-demographic distribution of the Respondents

Variable	Categories	N	%
Age	Less than 20	48	34.2
	21-30	80	57.2
	31-40	9	8.6
	41-50	0	0
	Total	137	100
Religion	Islam	116	82.9
	Christianity	21	17.1
	Total	137	100
Level of education	No formal education	24	17.2
	FSLC	32	22.8
	SSCE	64	45.7
	Bachelor degree	17	14.3
	Total	137	100
Tribe	Hausa/Fulani	104	74.3
	Yoruba	24	17.1
	Igbo	3	2.9
	Others	6	5.7
	Total	137	100
Occupation	House wife	60	42.9
	Self employed	40	28.5
	Student	12	8.6
	Civil servant	25	20
	Total	137	100

Research Question 1:

What effects have the quality of available material resources on antenatal care services to pregnant women?

Answer to this research question is presented in Tables 2 and 3. As presented in Table 2, 66.4% of material resources were available and functioning in the facility, few 10.9%, of the material resources were not functioning, while 22.6% where not available.

Table 2: Availability of Material Resources in Primary Health Care

General Infrastructure	N	%
Available and functioning	91	66.4
Available and not functioning	15	10.9
Not available	31	22.6
Total	137	100

Further Table 3 showed that 44% of the respondents were given information during ANC visits about nutrition, family planning, danger signs and labour signs while 56% said they were not given. 60% of respondents were giving counselling sheets during ANC visits on nutrition, family planning, danger signs and labour signs. While 30% said they were not given such sheets and 10% don't know. When asked whether there was provision for obstetrics scan to assess the level of pregnancy and development of the foetus during their ANC visits, 35.2% said there was provision such scan while 64.8% there were no such provision. Finally, respondents were asked whether it was easy to get prescribe medications during antenatal visits, 89.1% said it was easy while 10.9 said it was not., which also showed inadequacy of material resources in most developing countries. This study conclude that material resources were available.

Table 3: Availability of Material Resources in Primary Health

Items	Yes	No	Don't know
Given information during ANC visits about nutrition, family planning, danger signs and labour signs.	44	56	-
Given counselling sheets on nutrition, family planning, danger signs and labour signs.	60	30	10
Is there provision for obstetrics scan to assess the level of pregnancy and development of the foetus during ANC visits	35.2	64.8	-
Is it being easy to get prescribe medications during antenatal visits	89.1	10.9	-
	57.1	40.4	2.5

Research Question Two

1. What effects have the quality of available human resources on antenatal care services in Dandagoro LGA?

As presented in Table 4, many staff are available during each session of Antenatal care services (ANC) are Community Health Extension Workers (CHEW) 45% and others paramedical personnel 45%, while Nurses 5% Community Health Officers, 5%. This study concludes that there are no adequate human resources because majority of staff available are not skilled workers.

Table 4: Availability of Human resources

Staff	N	%
Medical Doctors	0	0%
Nurse	1	5%
CHO	1	5%
CHEW	9	45%
Others	9	45%
Total	20	100

Research Question Three

1. What is the contribution of the available antenatal care services to the well-being of pregnant women in Dandagoro LGA?

Table 5 showed that majority of the women (71.5%) utilizes the facility for antenatal care services and most of them received the service while 28.5 are not utilizing the facility adequately. This study indicated that antenatal services are adequately utilized

Table 5: Utilization of Antenatal Care Services

Variables	N	%.
Utilized the services	98	71.5
Do not utilized the services	39	28.5
Total	137	100

Research Question Four

What is the level of satisfaction with the quality of antenatal care services among pregnant women attending Primary Health Care Dandagoro?

Table 6 revealed that majority of the women were satisfied with the services they received in the facility (71.5%) while (28.5%) we're not satisfied with the services they received in the facility by the health personnel's. It is implied that

Table 6: Satisfaction of Women with Quality of Care

What do you have to say about the services you received	N	%
Satisfied	98	71.5
Not satisfied	39	28.5
Total	137	100

Discussion of Findings

This research determines the quality of antenatal care services rendered to pregnant women attending primary health care Dandagoro Batagarawa LGA Katsina State. The socio-demographic data shows that majority of the respondents were between 21-30 years, most of them were Muslims, Hausa/Fulani and housewives. This study is not in line with study conducted by Abuzahr & Wardlaw (2014), where majority of the women were civil servant and most of them were Christians.

Majority of the women had at least primary education and most of the women were between 25-34 years. The results of this study showed that the quality of services rendered in primary health care Dandagoro, was good. This study is not in agreement with Carolli, Viller, & Piago (2014) who reported that the quality of ANC in most developing countries, is inadequate.

Results from this study revealed that material resources were available. This study does not support the study conducted by Fantahen, et al, (2010), that reported supply shortages such as lack of drugs, equipment, and gloves, infrastructures problems to provide antenatal services in providing quality antenatal care in developing countries. This study is in contrast with Carolli, Viller, & Piago, (2014) who observed that a major problem hindering quality of ANC is inadequate resources. This study is also not in line with Mathole, Linomark, & Ahlberg (2016) who reported that health workers in Zimbabwe expressed concern over shortage of ANC resources such as drugs, staff, electricity, telephones and debilitating condition of the facilities.

Our study observed that there are no adequate human resources because majority of staff available are not skilled workers the majority of staff available are the Community Health Extension Workers and other non-professionals. This result is support of Fantahun et al. (2010) who showed that there is inadequacy of human resources in providing antenatal services. Our study reported that antenatal services are adequately utilized Utilization of Antenatal care services. This is not in congruent with a study conducted by Dairo, (2008). Our study is in contrast to Addai, (2010) who revealed that that there is underutilization of ANC services in most Nigerian communities, and concluded that the major reason for underutilization was due to low level of Formal Education.

This study revealed that majority of the women were satisfied with the services they received in the facility. This is in congruent with a study which was conducted by Fawole, Okunlola and Adekunle (2008), in which women were satisfied with care received, interpersonal relationship and the

infrastructures for providing care. The study is also in support of another study conducted by Oladapo and Osiberu (2009), who reveal that majority of women (65%) were satisfied with the quality of care received.

Conclusion and Recommendations

The study was carried out to determine the quality of antenatal care services in Primary health care facilities at the Dandagoro, Batagarawa Local Government, Katsina state. To assess the quality of services questions were asked on the availability of material and human resources, utilization of services and satisfaction. Relevant literatures were reviewed. Random sampling technique was used to select 137 respondents. Questionnaire and Checklists were also used to determine the availability of both human and material resources. The results of this study showed that the quality of services rendered in primary health care Dandagoro, was good because the material resources were available but, no adequate human resources because majority of staff available are not skilled workers the majority of staff available are the Community Health Extension Workers and other non-professionals. This study also reported that antenatal services are adequately utilized and majority of the women were satisfied with the services they received in the facility. Based on these findings, some recommendations were made. It is therefore concluded that that the quality of services rendered in primary health care Dandagoro could be improved upon with adequate supply of qualified medical personnel to complement the stock of available resources.

Based on the findings of this study it is recommended that the directorate of Primary health care, Dandagoro should as a matter of importance serve as advocate to the local government and other non-governmental organizations to provide qualified personnel for the provision of quality antenatal care services. Provide human resources including Medical Doctors, Registered Nurses, and Registered Midwives to be providing quality antenatal care services. Foster health education to members of Dandagoro Community regarding the importance of attending antenatal clinics. Provide material resources including general infrastructure, consumables, drugs and equipment to be providing quality antenatal care services.

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