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HEALTH PROBLEMS AFFECTING PREGNANT WOMEN IN BAUCHI CENTRAL ZONE'S GENERAL HOSPITALS

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ABSTRACT

This study was designed to evaluate the health problems affecting pregnant women in Bauchi Central Zone of Bauchi State. The study employed a retrospective descriptive study among pregnant women who had ANC and also delivered their babies or were brought to the Hospital at the onset of labour or during child birth from 1st January 2022 to 31st December 2022. The instrument for data collection was a designed proforma which was used to extract information from patient antenatal cards, ANC registers, labour and delivery registers. The collected data was entered into the computer and analysed using SPSS Version 21. The findings of the study show that less than one-third of the respondents 60(30.30%) were between ages 21-25 years, while majority were married and 76(38.38%) attained secondary education. The events during ANC for booked and unbooked pregnancies were preeclampsia (4(10.0%) vs 8(12.90%) and Malaria in pregnancy 12(30.0%) vs 18(29.03%). In conclusion, the study showed eventful pregnancy among women with booked antenatal when compared with women with unbooked pregnancy. The study therefore recommends improving the availability and accessibility of quality antenatal and delivery care services in our environment to improve pregnancy outcome.

Keywords: *Antenatal Care, Booked Pregnancy, Unbooked Pregnancy, Acceptable Minimum Package, Desirable Quality of ANC*

INTRODUCTION

Nigeria with maternal mortality ration (MMR) of 814 per 100,000 compared to global average of 210 undoubtedly needs an improved ANC coverage as well as high quality ANC service delivery (WHO, 2013). Every single day, Nigeria loses about 145 women of childbearing age. This makes the country the second largest contributor of maternal mortality rate in the world. UNICEF In adequate ANC, both in terms of coverage and quality, has been associated with adverse pregnancy outcomes (Osungbade et al., 2011). Globally, it has been estimated that about half a million women die each year of pregnancy related causes, 99 % of them in developing

countries (Tuladhar et al., 2011). At least nine percent of the pregnancies are complicated by a disease which is aggravated by pregnancy, such as malaria, iron-deficiency, anaemia, hepatitis, tuberculosis (TB), and heart disease (WHO, 2014). Globally, it is estimated that more than 61.8 million women suffer from significant ill health annually as a result of childbearing (Koblinsky et al., 2008). Effort to reduce maternal mortality and morbidity have so far focused on preventive approaches, such as antenatal care, tetanus toxoid immunization, training of traditional birth attendants (TBA), and family planning. UNICEF in Akhter, (2006) reported that essentially, all pregnant women are at risk of serious complications during pregnancy and childbirth, and maternal mortality can be avoided if mothers with such complications receive adequate and timely medical management identified during ANC visits. It is important to look into the apparent connection that exists between quality antenatal care and pregnancy outcomes among mothers.

Justification of Study

Many mothers in Bauchi State and in the country at large have to grapple with number of problems in having quality antenatal care services, some of these problems fall within the sphere of influence of the mothers, while others fall outside areas of their influence. For instance mothers of child bearing age in Bauchi State can be faced with other problems that cause having poor quality antenatal care services. These problems may include: Lack of finance, lack of knowledge, inaccessibility to health facility and inadequate number of qualified staff at the health facilities. In Bauchi State there is scanty or no documented information on quality antenatal care services. Therefore, this study is an attempt to identify the problems facing pregnant women in Bauchi Central Zone of Bauchi State, and suggest ways of mitigating the identified problems.

Objective of study

To determine common health problems affecting pregnant women during antenatal care in Bauchi Central Zone General Hospitals

Null Hypotheses

Ho1, There will be no Health problems associated with antenatal care during pregnancy.

Antenatal care is the care that a woman receives during pregnancy and helps to ensure healthy outcomes for women and newborns (WHO/UNICEF, 2013). Antenatal care provides an important entry point

for pregnant women to receive a broad range of health promotion and preventive health services, including nutritional support and prevention and treatment of anaemia, prevention, detection and treatment of malaria, tuberculosis and sexually transmitted infections (STIs)/HIV/AIDS (particularly prevention of HIV transmission from mother to child, and tetanus toxoid immunization (WHO/UNICEF, 2013). A trained (skilled) health care provider helps to monitor and reduce the risks for both the mother and child during pregnancy. In Nigeria, it is estimated that only 37 percent of antenatal care providers are doctors, nurses and midwives, while about 35 percent of the mothers do not receive this care.

Components of Antenatal Care

Disease Detection

Abdominal Examination- The objective of abdominal examination to help the health care providers to know those conditions that may adversely affect the health of the pregnant mother or her child and then assist in the subsequent management (Chingle et al., 2017). Counseling and health promotion is essential for the providers and women to talk about important issues affecting the woman's health and the health of the newborn. According to (WHO, 2013) the following are the things that are discussed during counseling and health promotion," how to recognize danger signs, what to do and where to go get help good nutrition and the importance of rest, hygiene and infection prevention practices, risks of using tobacco, alcohol, local drugs, and traditional remedies, breastfeeding, and postpartum family planning and birth spacing.

Birth preparedness and Complication Readiness

Globally, it is estimated that approximately 15 percent of women will develop a life-threatening complication so every woman and her family should have a plan for skilled attendant at birth, the place of birth and how to get there including how to access emergency transportation if needed, items needed for the birth, money saved to pay the skilled provider and for any needed mediations and supplies, support during and after the birth (e.g. family, friends) and potential blood donors in case of emergency (WHO/UNICEF, 2013).

Maternal Morbidity during Labour and Delivery

Data from the National Hospital Discharge Survey (NHDS) for 2013 through 2007 showed the prevalence of maternal morbidity during labour and delivery in the United States. Overall morbidity was high: 43% of

women experienced some type of morbidity (an obstetric complication, a pre-existing medical condition, a caesarean delivery, or any combination of these) during their hospital stay while 31% of women had at least one obstetric complication or at least one pre-existing medical condition (Koblinsky et al., 2008). A study conducted on the inequality of maternal health care in urban sub-Saharan Africa from 23 demographic and health surveys in sub Saharan African countries from the 2009s, showed that poor urban women appeared to receive worse maternal health care than their urban non-poor and rural counterparts. In the same study it was found that urban poor are more likely to begin antenatal care late, make fewer visits to a health facility during pregnancy, and receive non-professional delivery care than urban non-poor. The urban poor in these countries fare even worse than rural women, indicating that improvements in maternal health care have not benefited urban poor women (Magadi, et al., 2000). Nigeria is the tenth most populous country in the world and also accounts for 1 % of the world population. However, it contributes 10% of the global burden of maternal deaths (WHO, 2003). More Nigerian women are known to suffer serious and often permanent damage to their health compared to women in other African countries like Zimbabwe, Senegal. The major causes of these deaths include postpartum haernorrhage, obstructed labour, hypertension, postpartum infection and abortion-related complications (Abouzahr, 2013).

Direct Causes of Morbidity/Mortality

The direct causes of maternal deaths, accounting for up to 80% of cases in Africa, are obstetric haemorrhage, puerperal sepsis, pregnancy induced hypertension (including eclampsia), obstructed labour and ruptured uterus, and complications of unsafe abortion. Haemorrhage, sepsis, and eclampsia account for a vast majority of maternal deaths (WHO, 2006).

Abortion

Approximately one-fifth (19%) of the 6.4 millions pregnancies occurring annually in the U.S. end in induced abortion (Osungbade et al., 2011). In Nigeria, an estimated 610,000 women engage in illegal induced abortion, alone, each year (Rooney et al., 2012). (Dimperio et al., 2012) reported that low social acceptability of child rearing outside of marriage accounts for the increasing number of abortions among young people. They also noted that limited number of contraceptive methods available is associated with abortion rate. However, according to Family Care International (2012), majority of these abortions, especially in the developing world, are

unsafe arising from inadequate skills among. Provider, hazardous techniques and unsanitary facilities (Uzoigwe et al., 2010), noted that complications from unsafe abortion lead to about one-fifth of all maternal deaths.

Maternal hemorrhage

Maternal haemorrhage consists of bleeding from the genital tract during pregnancy (antepartum), during or after the delivery of the infant (intra-and post-partum). Although in developed countries antepartum hemorrhage is no longer a major cause of maternal mortality, it is still an important cause of maternal and perinatal morbidity (Abouzahr, 2008). Globally, it is estimated that each year nearly 14 million women suffer severe blood loss during childbirth or the post-partum period. An estimated 140,000 women die as a result of hemorrhage (WHO, 2013). It is estimated worldwide that 25% of all maternal deaths are due to hemorrhage (WHO, 2013).

Hypertensive Disorders of Pregnancy

Hypertensive disorders of pregnancy represent a group of conditions associated with high blood pressure during pregnancy, proteinuria and in some cases convulsions. It is estimated worldwide that approximately 12% of all maternal deaths is caused by hypertension, particularly eclampsia (convulsions) (WHO, 2013).

Prolonged or Obstructed Labour

WHO, (2013) estimated that about 8% of maternal deaths is caused by prolonged or obstructed labour. This is often caused by cephalopelvic disproportion (when infant's head cannot pass through the maternal pelvis) or by abnormal lie (when the infant is incorrectly positioned for passage through the birth canal). Disproportion is more common where malnutrition is endemic, especially among populations with various traditions and taboos regarding the diets of girls and women (Abouzahr, 2013).

RESEARCH METHODOLOGY

Study Design

Retrospective cohort study was used for this study.

Scope of Study

This study was limited to pregnant women (15-49 years) attended ANC at General Hospitals in Bauchi Central Zone of Bauchi State

Study Area

Bauchi Central Zone comprised six (6) LGAs but the study was restricted in four main LGAs that includes Ningi LGA, Ganjuwa LGA Darazo LGA and Misau LGA, with a total population of 1,448386 as at 2006 National Population Census

Study Population

The population for this study was women who had (ANC) and who also delivered their babies or were brought to the Hospital at the onset of labor or during child birth between 1st January 2017 to 31st December 2017.

Source of data: Medical record office from various Local Government Areas (2017).

Sample Size

The minimum sample size was calculated based on the Yaro Yamane's formula for sample size determinant

$$n=\frac{Z^2Pq}{d^2}$$

Where
n = minimum sample size
Z = 1.96 at 95% confidence interval
P = 11.3% i.e. the minimum acceptable quality of care received by ANC attendees from a previous study
q= 100 - p
d = degree of accuracy desired (0.05)
N = number of population

$$n=\frac{3.8416x11.3x88.7}{5^2}$$

n = 154
N = 48300
Using the finile correlation formula for proportions

$$n=\frac{n0}{1+\frac{(n0-1)}{N}}$$

Where

n0 = calculated sample size

$$n=\frac{154}{1+\frac{(154-1)}{48300}}$$

20 % will be added to the calculated sample size to adjust for non response

$$q=\frac{1}{1-f}$$

q = 1.25

Multiplying the adjustment factor by the sample size will give us 153 x 1.25 = 191.25 approximately 200

Proportionate allocation (sample size for each facility)

Ningi General Hospital $=\frac{13500x200}{48300}$ = 56

Ganjuwa General Hospital $=\frac{12800x200}{48300}$ = 53

Darazo General Hospital $=\frac{11500x200}{48300}$ = 48

Misau General Hospital $=\frac{10500x200}{48300}$ = 43

= 200

Sampling Technique

Method and instrument of Data collection: mixed methods approach was used including: (a) Retrospective cohort study of quality of care provided to women aged 15–49 years who had completed their ANC and delivered in 2017; (b) in-depth interviews with health professionals. The Instrument for the data collection will be antenatal cards, ANC registers, labor and delivery registers.

Research Instrument

A structured questionnaire was used for this study

Method For Data Analysis

Data was manually selected out and coded for analysis using the statistical package for social science (SPSS) version 22, it was summarized using

descriptive statistics and chi-square test associations between categorical variables

Validity
To determine the validity of the instrument, the researcher gave the questionnaire to his supervisors to ascertain the face validity of the instrument.

Reliability
The reliability index was determined using cronbach's alpha test of internal consistency (SPSS Version 22).

Inclusion Criteria
The study included pregnant women between the age of 15-49 years from Bauchi Central Zone Local Government Areas who attended antenatal care and post natal services.

Exclusion Criteria
The study also excluded pregnant women who were not within the age of 15-49 years and are living outside Bauchi Central Zone.

Ethical Consideration
Ethical clearance was obtained from the Department of Public and Community Health Novena University and Bauchi State Ministry of Health.

RESULTS
This chapter presents the analysis of the data generated on the study evaluation of the quality of antenatal care and pregnancy outcomes among women of child bearing age in Bauchi Central Zone. According to Table 1 below, less than one-third 60(30.30%) of the respondents were between the ages of 15-20 years followed by respondents in ages 26-30 years 51(25.76%), 21-25 years 50(25.25%) and 31-35 years 28(14.14%) respectively. Furthermore, majority of the respondents 188(94.95%) were married, while most 170(85.86%) practice Islam as their religion and above half of the respondents 102(51.52%) were from Hausa tribe. In addition, more than one-third of the respondents 76(38.38%) attained secondary education, followed by Primary education 57(28.79%) and 40(20.20%) had no formal education. Similarly, more than half of the respondents

106(53.54%) were unemployed, followed by self employed 61(30.81%) and 31(15.66%) were civil servants.

Table 1: Socio-demographic characteristics of the respondents

Variables	Frequency (N=198)	Percentage
Age (Years)		
15-20	60	30.30
21-25	50	25.25
26-30	51	25.76
31-35	28	14.14
36-40	9	4.55
Marital Status		
Married	188	94.95
Divorced	10	5.05
Religion		
Christian	18	9.09
Islam	170	85.86
Traditional	10	5.05
Ethnicity		
Hausa	102	51.52
Fulani	85	42.93
Igbo	7	3.54
Yoruba	4	2.02
Educational Status		
No formal Education	40	20.20
Primary	57	28.79
Secondary	76	38.38
Tertiary	25	12.63
Occupation		
Unemployed	106	53.54
Self employed	61	30.81
Civil servant	31	15.66

Table 2: Health problems during ANC

Variable	Frequency	Percentage
Was the Booked ANC pregnancy eventful	**N=136**	
Yes	40	20.20
No	96	48.48
If yes, what was the event	**N=40**	
Pre-eclampsia	4	
Malaria in Pregnancy	12	10.0
Ante partum hemorrhage	4	30.0
Anemia	7	10.0
Others	13	17.50
		32.50
Eventful ANC un booked pregnancy	**N=62**	
Pre-eclampsia	8	12.90
Malaria in Pregnancy	18	29.03
Anemia	26	41.94
Others	10	16.13

As shown in Table 2 below, the mode of delivery of booked pregnancy were spontaneous vertex delivery 41(66.13%) and caesarean section 21(33.87%). The outcome of the pregnancies were mother alive and well 181(91.41%) and maternal death 17(8.59%). The maternal death of the booked pregnancies were caused by eclampsia 2(11.76%), severe malaria 2(11.76%) and severe anaemia 1(5.88%), while the maternal death for the unbooked pregnancy were caused by postpartum haemorrhage and eclampsia 4(23.53%), severe anaemia 3(17.65%). The fetal outcome for the booked pregnancy were baby alive and well 132(66.67%), fresh still birth 2(1.01%) and low birth weight 1(0.51%). In addition, the fetal outcome for the unbooked pregnancy were baby alive and well 52(26.26%), fresh still birth 5(2.53%) and low birth weight 3(1.52%).

DISCUSSION

The study showed that women with booked pregnancy had fewer caesarean section 14(10.29%) when compared with women with unbooked pregnancy 21 (33.87%). Similarly, out of the 17(8.59%) maternal death recorded, 11 of them where among the unbooked pregnancy when compared with 5 among the booked pregnancy. The finding was similar to a study in Nepal which recorded more maternal mortality among unbooked pregnancy when compared with booked (Pokharel et al., 2007). The finding was also similar to the findings of the study in Abia State

University Teaching Hospital (Chigbu et al., 2009). In the same vein, foetal outcome shows that women with unbooked pregnancies had higher fresh still birth 5(2.53%), low birth weight 3(1.52%) and preterm 2(1.015) when compared with women with booked pregnancies fresh still birth 2(1.01%), low birth weight 1(0.51%), preterm 1(0.50%). The finding was similar to previous study (Osungbade and Ayinde, 2011; Pokharel et al., 2007; Chigbu et al., 2009). In addition, the study showed that women with booked pregnancy are more likely to be alive and well after giving birth when compared with women with unbooked pregnancy. Women with unbooked pregnancy had more maternal death than women with booked pregnancy. Furthermore, women with booked pregnancy tend to have baby that are alive and well as compared with women with unbooked pregnancy. This finding was similar to previous studies (Chigbu et al., 2009; Pokharel et al., 2007; Shahina et al., 2016, Nwonu and Ifidon, 2014).

CONCLUSION

The study showed that the major problems associated with pregnancy in the study area are malaria, anaemia and some other unnamed health issues. It also showed that eventful pregnancy was less common among women with booked antenatal when compared with women with unbooked pregnancy. In addition, both maternal and foetal outcome was better among the women with booked pregnancy when compared with the women with unbooked pregnancy. The findings show that women with desirable quality of antenatal and booked pregnancy are more likely to have better pregnancy outcome when compared with women with undesirable quality of antenatal and unbooked pregnancy.

RECOMMENDATIONS

Based on the findings of the study it is recommended that, awareness focusing on the importance and benefits of ANC should be carried out in communities nationwide, especially in rural communities in Northern Nigeria to reduce the rate of unbooked pregnancy. Pregnant women should be encouraged to attend all ANC sessions to enable prompt and early diagnosis of complications to improve maternal and foetal outcome.

REFERENCES

Abouzahr, C. (2013). Safe motherhood: a brief history of the Global movement; *British Medical Bulletin, 67:* 13-25

Abouzahr, C.T. Wardlaw and Hill, K. (2011). Maternal mortality: estimates developed by WHO, UNICEF, UNFRA. WHO/RHR/01.9, WHO Geneva

Akhter, H.H., Chowdhury, M., and Sen, A. (2006). A cross – section study Maternal Morbidity in Bangladesh; Dhaka. Bangladesh institute of research for promotion of essential and reproductive health and technology, (BIRPERHT publication, H2)

Chigbu, B., Onwere, S., Kamanu, C. I., Aluka, C., Okoro, O., and Adibe, E. (2009). Pregnancy outcome in booked and unbooked mothers in South Eastern Nigeria. *East African Medical Journal, 86*(6), 267-71.

Chingle, M. P., Bupwatda, J. M. and Zoakah, A. I. (2017). Antenatal Care and Pregnancy Outcomes among Mothers Who Delivered in a Rural Hospital in Nigeria. *International Journal of Innovative Research and Development*, 6, 3.

Dimperio, D., Frentzen, B. and Cruz, A. (2012). Routine weighing during antenatal care: still justified? *British medical journal* 304: 460

Family Health International 360 (2012*).* Schooling in northern Nigeria: Challenges for girls' education. A brief written by Rachel Hatch Research Associate, Education Policy and Data Center.

Koblinski, M.A., Campbell, O. and Heichelhei, M.J (2009). Organizing delivery care: what works for safe motherhood? *Bulletin of the World Organization.* 77 (5): 399-406, (pubmed)

Magadi, M. (2011). Analysis of factors as with maternal mortality in Kenyan hospitals. *Journal of biosocial science* 33: 375-389

Nwonu, C. O., and Ifidon, O. (2014). Nigeria and Child Marriage: Legal Issues, Complications, Implications, Prospects and Solutions. *Journal of Law, Policy and Globalization*, 29.

Osungbade, K. O, Shaahu, V. N., and Uchendu, O. C. (2011). Clinical audit of antenatal service provision in Nigeria. *Health Care Women International,* 32(5):441-52.

Osungbade, K. O., and Ayinde, O. O. (2011). Birth outcomes among booked and unbooked women at a secondary health facility in Southwest Nigeria. *Journal of Child Health Care,* 15*(4), 320-328.*

Pokharel, H. P., Lama, G. J., Banerjee, B., Paudel, L. S., and Pokharel, P. K. (2007). Maternal and perinatal outcome among the booked and unbooked pregnancies from catchments area of BP Koirala Institute of Health Sciences, Nepal. *Kathmandu Univ Med J (KUMJ).5*(2), 173-6.

Shahina, I., Urooj, M., and Ayesha, J. (2016). Obstetric outcome in booked and unbooked mothers. *Isra Medical Journal, 8*(3), 182-186.

Tuladhar, H., and Dhakal, N. (2011). Impact of Antenatal Care on Maternal and Perinatal outcome: A Study at Nepal Medical College Teaching Hospital. *NJOG*, *6*(2), 37-43.

Uzoigwe, S.A. and John, C.T. (2004). A ten - year review of maternal mortality in the university teaching hospital, Uniport. *Nigerian journal of medicine*, vol. 13. No. 1

World Health Organization (2013). Making pregnancy safer: the critical role of skilled attendants. www.who.int/making_pregnancy_safer/documents/9241591692/en

World Health Organization, (2006). Reproductive health indicators: guidelines for their generation, interpretation and analysis for global monitoring.