MATERNAL MORTALITY AND PREGNANCY HEALTHCARE SERVICES AMONG WOMEN ATTENDING ANTENATAL IN THE FEDERAL MEDICAL CENTRE LOKOJA KOGI STATE NIGERIA

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ABSTRACT

Maternal mortality continued to be the major cause of death among women of reproductive age in many countries and remained a serious public health issue especially in developing countries including Nigeria. The objectives of the study were to examine Maternal Mortality and Pregnancy Healthcare Services among Women attending Antenatal in the Federal Medical Centre Lokoja Kogi State Nigeria. The research design of this study was descriptive and non-experimental design which allowed researcher gathered information, summarized, presented, and interpreted for the purpose of clarification. A total of three thousand and forty six (3,046) pregnant women were admitted into maternity complex of Federal Medical Centre Lokoja, Kogi State between 2019- 2021. Data was analyzed using frequency table and percentage. The finding showed that, significant positive relationship between maternal mortality and women's healthcare education services during antenatal in the study areas, inverse significant relationship existed between maternal mortality and the age of pregnant women in the study areas and inverse significant relationship existed between maternal mortality and women's socio-economic status. It was recommended that, effective health education to pregnant women, subsidy of health care services for pregnant women or free maternal health care scheme, teaching on Family planning/contraceptives to avoid unwanted pregnancy, information on warning signs of postpartum problem etc The government and policy makers are advised to take the essence of maternal mortality very serious since it served as the panacea for a reduced mortality coupled with the morbidity of pregnant women in the place under study.

Keywords: *Maternal mortality, pregnant women, health education, socioeconomic status, age of pregnant women*

INTRODUCTION

Maternal mortality, also known as maternal death, continues to be the major cause of death among women of reproductive age in many countries and remains a serious public health issue especially in developing countries (WHO, 2007). Maternal death as defined by the World Health Organization (WHO, 2012) is a death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its

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management but not from accidental or incidental causes (Nnamdi, 2012). Maternal mortality refers to any loss of a woman's life resulting from pregnancy complication or death within 42 days after childbirth, notwithstanding the period or site of the pregnancy, emanating from issues that are linked or escalated by the management of the pregnancy but not from accident or incidental factors, (Ibrahim, 2016).

Globally, the estimated number of maternal deaths worldwide in 2005 was 536,000 up from 529,000 in 2000. According to the WHO (2008), 1500 women die from pregnancy or pregnancy-related complications every day. Most of these deaths occur in developing countries, and most are avoidable. Of all the health statistics compiled by the World Health Organization, the largest discrepancy between developed and developing countries occurred in maternal mortality. Ujah et al. (2005) noted that while 25 percent of females of reproductive age lived in developed countries, they contributed only 1 percent to maternal deaths worldwide. A total of 99 percent of all maternal deaths occur in developing countries. More than half of these deaths occur in sub-Saharan Africa and one third in South Asia. The maternal mortality ratio in developing countries is 450 maternal deaths per 100,000 live births versus 9 in developed countries. Fifteen countries have maternal mortality ratios of at least 1000 per 100,000 live births, of which all but Afghanistan and India are in sub-Saharan Africa: Afghanistan, Angola, Burundi, Cameroon, Chad, the Democratic Republic of the Congo, Guinea-Bissau, India, Liberia, Malawi, Niger, Nigeria, Rwanda, Sierra Leone and Somalia (WHO, 2008).

Nigeria has one of the highest maternal mortality rates in the world, second only to India whose population is eight times larger than that of Nigeria. Nigeria has one of the worst records of maternal deaths in the world and this situation is worsening with time. The problem of poor organization and access to maternal health services has always been a major challenge in Nigeria. Omo-Aghoja et al (2008) The Nigerian health system as a whole has been plagued by problems of service quality, including unfriendly staff attitudes to patients, inadequate skills, decaying infrastructures, and chronic shortages of essential drugs. Electricity and water supply are irregular and the health sector as a whole is in a dismal state. In 2000, the World Health Organization ranked the performance of Nigeria's healthcare system 187th among 191 United Nations member states. A 2003 study revealed that only 4.2 percent of public facilities met internationally accepted standards for essential obstetric care in Nigeria (Harrison, 2009). Approximately two-thirds of all Nigerian women deliver outside of health facilities and without medically skilled attendants present. The weak performance of the health system must be understood in the context of the country's long-standing problems with governance. Corruption in the political system is endemic while social development, including the promotion of the health of Nigerian citizens, has been more a rhetorical than a real aim of the state. The

available records in a community-based maternal mortality shows that ill-health such as sepsis, pre eclampsia/eclampsia and post partum hemorrhage as well as nutritional deficiencies are the causes of maternal mortality (Rossignol, 1994).. According to Ogunjimi (2012) individual characteristics of mothers found to influence maternal deaths include maternal age, educational attainment, socio-economic status and antenatal attendance. Maternal Health Care in Nigeria According to Okeke et al.(2016) women and their health have largely been influenced by the African traditional culture. Owing to the patriarchal nature of most of these African societies, diverse inequities are being perpetrated against women. ‘‘It is not just what is done to women, but what is not done for them’’. Adetoro (2011) identified four major factors that determine maternal mortality in Nigeria. They are reproductive factors, obstetric factors, health service and socio-economic and cultural factors. The socio-cultural factors include cultural practices, polygamy, request for permission to visit health institution, cultural belief that a woman in labor must endure suffering. Economic factors include economic status of women, lack of access to wealth and resources, difficulty in gaining employment, cost of medical bill and government under funding of health services. The ability of women to command resources and make independent decision about their fertility and their health care has an impact on maternal mortality. Additionally, lack of education and knowledge concerning health related issues contribute to delays in seeking care when it is needed for management of life threatening pregnancy complications (Abeenab, 2009). Omo-Aghoja et al (2008) estimated that in Nigeria, more than 70 percent of maternal deaths could be attributed to five major complications: hemorrhage, infection, unsafe abortion, hypertensive disease of pregnancy and obstructed labor. Also, poor access to and utilization of quality reproductive health services contribute significantly to the high maternal mortality level in the country Muoghalu (2010) asserted that many women in Nigeria are illiterates and this affects their level of knowledge, exposure and income, and all these impinge on their nutritional status. Women education is an important determinant of reproductive behavior. It is a distant factor which offers the possibility of affecting the magnitude of maternal mortality in a number of different ways. One well-known effect of education is lowering the fertility, because if women have less pregnancy and bear fewer children, they are less at risk of maternal death. United Nations (2017) noted that poor and uneducated women have a high possibility of marrying early, poor child spacing and unlikely to use contraceptive than their rich counterparts. Level of income has significant implications on health and development of household generally as well as poor access to information especially in the rural communities where maternal mortality rate is higher than the urban cities. Maternal mortality level is much higher in women with no education compared to women with secondary level or higher education. The factors underlying the direct causes of maternal deaths are the low social status of women in developing countries

which limits their access to economic resources, basic education and inability to make decisions related to their health and nutrition. Some women are denied access to health care when it is needed either because of cultural practices of seclusion or that decision making is the responsibility of other family members. Mojekwu (2005) categorized the causes of maternal deaths into medical factors, health factors, reproductive factors, unwanted pregnancy and socioeconomic factors.

Mairiga et al (2008) expressed the view that the world's maternal mortality ratio (the number of maternal deaths per 100,000 live births) is declining too slowly to meet Millennium Development Goal (MDG) 5 target, which aimed to reduce the number of women who die in pregnancy and childbirth by three quarters by the year 2015. While an annual decline of 5.5 per cent in maternal mortality ratios between 1990 and 2015 is required to achieve MDG 5, figures released by WHO, UNICEF, UNFPA and the World Bank show an annual decline of less than l per cent. Gains in reducing maternal mortality have been modest overall. While average global infant mortality and under five mortality have been reduced by more than half in the past 40 years, and average global life expectancy at birth has increased enormously during the same period there has been no visible progress in maternal mortality (MMR) reduction at the global level. Shah and Say (2007) noted that the trend in developing countries is much worse, as studies from various countries of sub-Saharan Africa indicate that maternal mortality has not only continued to be high, but is indeed increasing after the launch of the Safe Motherhood Initiative (SMI) in Kenya in 1987.

Maternal mortality has been on the increase in recent time with detrimental effects on the socioeconomic development of the nation. According to the World Health Organization (WHO, 2007), approximately 830 women die every day from preventable causes related to pregnancy and childbirth. More worrisome is the fact that 99% of all maternal deaths occur in developing countries. Garenne et al. in a 1997 case control study to analyze risk factors for maternal mortality in three leading hospitals in Dakar, Senegal identified the leading causes of death as puerperal sepsis and other infections, hemorrhage, eclampsia, ruptured uterus, and anemia. Results of the case-control study revealed the major risk factors associated with health system failure as medical equipment failure, late referral, lack of antenatal visit, and lack of available personnel at time of admission. Various indicators of maternal status at time of admission (complications, blood pressure, temperature, edema, and hemoglobin level) and of health history prior to admission (previous complications, previous C-section, lack of treatment) were also strong predictors of survival. Lastly, socio-demographic factors also appeared as correlates of maternal mortality, in particular: first pregnancy, pregnancy of high birth order, rainy season, being unmarried and low level of education. Lawoyin et al. (2007) carried out a cross-

sectional, community-based study to assess men's perception of maternal mortality in Nigeria and found that efforts were required to improve men's attitudes and knowledge in order to make them active participants in the fight to reduce maternal mortality.

Reproductive/Maternal health indicates that women can go through pregnancy and child delivery safely and that reproduction is carried to a favorable outcome. This however remains a mirage in Nigeria because of high maternal mortality rate in this country. Also stated that different stages of the women reproductive lifecycle must be given due attention for a smooth pregnancy process (Olonade et al, 2019). It is important for women in their reproductive age to have unhindered access to quality reproductive health services and be empowered to make decisions on issues of family planning. Having unhindered access to comprehensive reproductive health care, will increase women's chances of survival during pregnancy, give them the opportunity of having healthy children and enable them to have a balanced family and work life. However, the health care system in Nigeria is bedeviled with the challenges of quality service delivery, poor attitudes of staff to patients, lack of expertise, lack or poor equipment, and shortages of essential drugs (Akokuwebe et al 2015). Despite the huge sum of money budgeted or dispensed for health care system in Nigeria, the reality remains that these funds do not get to be used to the purpose for which it was committed and as such the pending challenges within the health care system persist, Idowu et al (2014). Shiffman et al (2007) assessed the state of political priority for maternal mortality reduction in Nigeria and identified the challenges that advocates face in promoting political priority. They found that priority is as yet in its infancy and that advocates need to coalesce into a potent political force in order to be able to push government to take appropriate action to reduce maternal mortality. Ibe (2008) conducted a study in Anambra state of Nigeria on care utilization and poor mortality index and found that the problem of maternal mortality in the country may not necessarily lie with utilization but with the quality of services. In the view that the problem of maternal mortality in Nigeria may not necessarily because of failure to utilize maternal care but that the health care system probably needs to be repositioned to meet the challenges of modern obstetric care.

Materials and Methods

The design used is a descriptive one and non-experimental design which allowed researcher gathered information, summarized, presented, and interpreted for the purpose of clarification.

The population of the study composed of one hundred and twenty (120) health personnel (55 Doctors and 65 Nurses) working in the area of the study with different years of working experiences. And a total of three thousand and forty six (3,046) pregnant women admitted into maternity complex of Federal Medical Centre Lokoja, Kogi State between 2019- 2021. The researcher decided to study the whole population.

A self designed questionnaire was used for the research which was given to the health personnel in the area of study. The questionnaire is of two sections. Section A consist of demographic data, section B consist of questions which addressing the research topic. Secondary data was also collected through patients' folders and registers from the record department of the hospital. Data was analyzed using descriptive statistical technique. The results and findings were illustrated in the table showing percentage.

Ethical approval was sought and given by the health centre. Explanations of the purpose and aims of the study were made to the respondents. Consent to participate was obtained from the respondents before the extraction of information from them. Anonymity was maintained to avoid disclosure of the identity of the respondents.

Table 1: Total population of pregnant women admitted between 2019- 2021.

Month	2019	2020	2021	Total
January	98	90	81	269
February	104	97	92	293
March	96	108	90	294
April	89	103	104	296
May	92	106	95	293
June	102	94	100	296
July	107	-	99	206
August	113	-	104	217
September	118	-	114	232
October	99	-	106	205
November	101	4	98	203
December	83	78	81	242
Total	**1202**	**680**	**1164**	**3,046**

Source: *Field survey, 2022*

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Table 1: Total population of pregnant women admitted into maternity complex of Federal Medical Centre Lokoja, Kogi State between 2019- 2021. It was noted that the hospital staff were on strike/lockdown between July to November 2020 as a result of armed thug men that invaded and attacked the hospital on 1st July, 2020 during the covid-19 period. The attack came while the staff were planning for a peaceful protest due to unavailability of covid-19 protective gadgets in their facility

Table 2: Population of the Respondents

Doctors	**Number**
Obstetricians & Gyneacologists	40
Physician Aneasthetists	15
Nurses	
Antenatal Clinic	10
Labor/Lying-in Ward	16
Post Natal Ward	12
Perioperative Nurses	24
Nurse Aneasthethists	3
Total	**120**

Source: *Field survey, 2022*

Results and Discussions

Demographic Information of the Study

The study looked at pregnant women's bio data in terms of age, marital status, and level of education with the objective of finding out whether these had effects on the factors influencing maternal mortality among pregnant women admitted in Federal Medical Centre Lokoja Kogi State Nigeria

Age Group Demography

Table 3: Age Group of the pregnant women

Age	Frequency	Percentage
Below 20 years	844	27.71%
20-29 years	998	32.76%
30-39 years	654	21.47%
40-49 years	430	14.12%
50 years and above	120	3.94%
Total	**3046**	**100%**

Source: *Field survey, 2022*

As shown in Table 3, majority of the pregnant women 32. 76% were aged between 20-29 years, 27.71% were below 20 years, 21. 47% had between 30 -39 years while 14.12% were between the ages of 40-49 years and 3.94% were 50 years old and above. This can be deduced that majority of pregnant women admitted into Maternity Complex of Federal Medical Centre Lokoja Kogi State were below 30 years of age. According to Ogunjimi (2012) early marriage accounts for about 23% of maternal mortality due to severe hemorrhage resulting from obstructed and prolonged labor. The narrow pelvis of these women may also result to fistula and often time still births. Ujah et al. (2005), in a seventeen-year review of factors contributing to maternal mortality in North-Central Nigeria found a bimodal pattern of maternal deaths occurring at both extremes of the reproductive age range. They found that the greatest risk of maternal death was among early teenagers and older women.

Marital Status of the pregnant women

Table 4: Marital Status of the Pregnant Women

Marital Status	Frequency	Percentage
Single	361	11,85%
Married	2332	76.56%
Divorce	181	5.94%
Widow	120	3.94%
Separated	52	1.71%
Total	**3046**	**100.00%**

Source: *Field Survey, 2022*

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From Table 4 above, it reveals that 11.85% of the pregnant women were single while 76.56% were married, 5.94% were divorced, 3.94% were widows, and 1.71% were separated from spouses accordingly. It was important to establish the marital status of the pregnant women as it could be a factor that may influence maternal mortality. Ujah et al.(2005). found that the greatest risk of maternal death was among early teenagers and older women. The table above showed that 11.84% of pregnant women were single which is common among teenagers.

Level of Education of the Pregnant Women

Table 5: Level of education of the pregnant women

Level of Education	Frequency	Percentage (%)
Tertiary	241	7.91%
Secondary	929	30.50%
Primary	1136	37.29%
None	740	24.29%
Total	**3046**	**100%**

Source: *Field survey, 2022*

Table 5 above shows that 7.91% of the pregnant women had tertiary education, 30.50% of them had secondary education, 37.29% stopped at primary level of education and 24.29% had no formal education. More than half of pregnant women admitted in Federal Medical Centre Lokoja Kogi State had only primary level of education or no level of education this showed high level of illiterate as asserted by Muoghalu (2010) that many women in Nigeria are illiterates and this affects their level of knowledge, exposure and income, and all these impinge on their nutritional status. United Nations (2017) noted that poor and uneducated women have a high possibility of marrying early, poor child spacing and unlikely to use contraceptive than their rich counterparts.

Demographic Information of the of the respondents

Table 6: Respondents' gender

Gender	Numbers	Percentage (%)
Male	58	48.33%
Female	62	41.67%
Total	**120**	**100%**

Source: *Field survey, 2022*

Table 6 show shows that 41.67% of the respondents were female and 48.33% of them were male.

Table 7: Age Group of the respondents

Age	Numbers	Percentage (%)
25- 30 years	14	11.67%
31- 35 years	13	10.83%
Above 35 years	93	77.5%
Total	**120**	**100%**

Source: *Field survey, 2022*

Table 7 shows that 10.83% of the respondents were within the age of 31- 35 years, 11.67% were within the age of 25- 30 years and 77.5% were within the age of 35 years and above.

Table 8: (Item Number 5) How satisfied are you with the maternal health service you rendered in this hospital?

Items	Frequency	Percentage (%)
Completely satisfied	102	85%
Partially satisfied	18	15%
Dissatisfied	0	0%
Total	**120**	**100%**

Source: *Field survey, 2022*

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In table 8 above 85% of the respondents were satisfied with the maternal health service rendered in this hospital and 15% of them were partially satisfied.

Table 9: (Item Number 6) how many times did patients visit antenatal clinic during pregnancy in this hospital?

Items	Frequency	Percentage (%)
1 to 3 times	40	33.33%
More than 3 times	80	66.67%
Total	**120**	**100%**

Source: *Field survey, 2022*

Table 9 above shows that 66.67% of the respondents said that patients visit antenatal clinic during pregnancy in this hospital more than three times while 33.33% of them said the visit was only one to two times during pregnancy.

Table 10: (Item Number 7) what health services did patient received during antenatal visit in this hospital (multiple response is allowed)?

Items	Frequency	Percentage (%)
Physical examination and taking of vital signs	120	100%
Gynaecological examination	120	100%
Family planning/contraceptive	120	100%
Blood test for anemia and other laboratory investigations	120	100%
Nutritional education	120	100%
Teaching on physical and sexual hygiene	120	100%

Source: *Field survey, 2022*

Table 10 above, 100% of the respondents agreed that health services patient received during antenatal visit were physical examination and taking of vital signs, gynaecological examination, family

planning/contraceptive, blood test for anemia and other laboratory investigations, nutritional education, and teaching on physical and sexual hygiene.

Table 11: (Item Number 8) what maternal health services did you give women after child-delivery in the hospital?

Items	Frequency	Percentage (%)
Physical examination and taking of vital signs	120	100%
Counseling on breastfeeding	120	100%
Family planning/contraceptive	120	100%
Blood test for anemia	120	100%
Nutritional supplement	120	100%
Information on warning signs of postpartum problem	120	100%

Source: *Field survey, 2022*

Table11 above, 100% of the respondents agreed that maternal health services given women after child-delivery in the hospital were physical examination and taking of vital signs, counseling on breastfeeding, family planning/contraceptive, blood test for anemia, Nutritional supplement and information on warning signs of postpartum problem

Discussions

Relationship between Maternal Mortality and Women's Healthcare Education Services during Antenatal

It is clear that despite the need to increase the demand for maternal healthcare services among community members, more needs to be done on the supply side. Filby et al. (2016), identified that particular supply-side challenges contribute to increased maternal mortality, especially in developing countries. Lack of proper drinking water, lack of skilled personnel in rural community hospitals, and food contamination contribute highly to maternal mortality. Despite their limited capacity, experienced practitioners with low wages, inadequate training, and work overload are often demotivated. Such factors affecting the supply side contribute to the low demand for maternal healthcare services.

The questionable quality of services makes it hard for women deeply rooted in their beliefs and norms on home delivery to unlearn and adopt new ones. Lack of empowerment, especially among rural women, contributed to the low uptake of such services. Most scholars engaged in similar research have used the qualitative approach. A study conducted by Figueiredo et al. (2018), used a cross-sectional approach to analyzing the qualitative data collected from face-to-face interviews, questionnaires, and interview recordings. The research, whose variables included healthcare professionals and maternal mortality rate, hypothesized that prenatal care offered by healthcare workers was effective in reducing the mortality rate.

Using data collected from the sample population, the researcher tested the relationship between these variables. The study concluded that healthcare workers played a vital role in increasing the uptake of quality maternal care services. Most participants agreed that they felt safe and encouraged to seek such services when healthcare workers improved their efforts to encourage individuals to use these series properly. Members of the community agreed that the concept of maternal health was alienated when healthcare workers made home visits to advise women on how to care for their unborn children and the importance of institutional births.

Women were seen to respond better to healthcare workers who approached them at a more personal level. The education levels of a woman were also considered as a variable that could significantly affect maternal healthcare. Women with higher levels of education generally sought more preventive care measures than their counterparts, indicating a knowledge gap that needed to be filled through civic education. Yaya (2019) went further to research men's perception of barriers to antenatal care by pregnant women. According to the researcher, greater paternal engagement is positively and directly related to improved utilization of antenatal care (Aborigo et al., 2018).

Despite numerous studies proving this, very few men in Nigeria actively support their wives in seeking antenatal care services. The study sought to understand the men's perspective on barriers to utilizing antenatal care with the ultimate goal of increasing their involvement in maternal care. Maternal death toll increases among the unmarried pregnant women due to lack of healthcare educational services than the married women who attended ant-natal educational services, the lack of anti-natal education hiked death rate tolls among the pregnant women in the place under study.

Relationship between Maternal Mortality and Women's Age among Pregnant Women attending Anti-Natal

Our findings showed that women aged 35 years or more were more prone to death than younger women, result similar to others. Age has been considered an important factor to assess the pregnancy's risk, since women older than 35 years can be more prone to preeclampsia. Maternal age was significantly associated to preeclampsia in a study conducted in Sweden and China. These findings imply that attention should be given to older pregnant women in order to diagnose early the risks of pregnancy-induced hypertension with proper monitoring of clinical status. For preeclampsia prevention, only calcium supplementation (calcium carbonate, 1,000–2,000 mg/day) and low-doses aspirin daily (50–170 mg) are considered effective in clinical practice.

Cesarean delivery prevalence in the present study was 65.4%, a superior rate than that found (43.3%) among Brazilian pregnant women assisted at the Unified Health System (SUS). Pregnant women with cesarean delivery presented more chance of dying than those with vaginal birth. Studies show that cesarean delivery can contribute to increase the risk of maternal death and maternal morbidity. Cesarean delivery should be indicated properly and corresponds to a strategy of future pregnancy-related deaths prevention when only performed when medically indicated. This study did not investigate the presence of obstetric morbidity and the proper cesarean indication.

Antenatal care was highly associated with maternal death in our study. In a similar study an inverse and significant correlation between maternal mortality ratio and antenatal care coverage was found. The proper antenatal care classifies the pregnant woman's risk and specialized professionals can monitor it. Although the municipality has a pregnancy risk classification protocol, among the avoidable maternal deaths, 77% of pregnant women attended antenatal care, a fact that suggests a need for investigating the quality of the antenatal care and hospital assistance.

Number of previous pregnancies presented a highly significant association with maternal mortality. First pregnancy showed more chances of maternal death in comparison with the multiparous ones. Similar results were found in China and Sweden where being nulliparae was highly associated with preeclampsia. By analyzing our data bank, among women in their first pregnancy, 45% showed co-morbidities (50% hypertensive disorders), 84% attended antenatal appointments, 55% had more than 4 appointments, 6% had

twin pregnancies, and 10% aged 35 years or older and 61% underwent cesarean deliveries. The fact that almost half of women showed co-morbidities could partially explain our findings, since such pregnant women should have a proper risk classification and monitoring

Relationship between Maternal Mortality and Women's Socio-Economic Status among Pregnant Women attending Anti-Natal

Education has been identified as a crucial factor in reducing both maternal and perinatal mortality rates. Women with no education had a significantly higher risk of maternal mortality than those with some. Increasing access to education for women, particularly in rural areas, can promote the use of ANC which could be an effective strategy for improving maternal and child health outcomes in the region.

Income was also revealed to be another limiting SES to the utilization of ANC due to limited access to appropriate medical treatment, which invariably exposes women to bad pregnancy outcomes (perinatal and maternal mortality). A significant inverse relationship between income and maternal mortality establishes that money is a considerable barrier to assessing comprehensive care in pregnancy and preventing birth complications to both mother and baby, many women may not be able to afford necessary care because of their personal limited income and that of their spouse. A high risk of maternal death exists for those who cannot afford private hospitals and turn to mission homes and traditional means which further predisposes them to perinatal and maternal mortality.

Even though studies on the effect of occupation on ANC utilization and pregnancy outcome are limited. The review reveals that women's occupation in countries with high mortality cases is burdening. Even housewives who are believed or expected to be less busy, are more engaged physically and emotionally and are mostly health-challenged. On the hand, women who are gainfully employed were revealed to have limited time for antenatal care services as well to report to the health facility early when some complications arise. Therefore, it is essential to prioritize the health and safety of pregnant women in these occupations by providing access to adequate healthcare, reducing physical demands, and addressing environmental and occupational hazards. This can lead to improved pregnancy outcomes and better health for both the mother and child.

Conclusion

The research work is carried out on maternal mortality and pregnancy healthcare services among women attending anti natal in Federal Medical Centre Lokoja Kogi State Nigeria. The researcher discovered that available maternal services in Federal Medical Centre Lokoja include antenatal, delivery and postnatal care. The predominant causes of maternal mortality are: hemorrhage, maternal ill-health and infection in pregnancy, pregnancy induced hypertension (PIH), but the present state of maternal health care service is better than the past five to ten years ago.

Recommendations

It was revealed that, Positive relationship was established between healthcare education during anti natal and the mortality rate among pregnant women in the place under study

Secondly, we found that a significant inverse relationship exists between income and maternal mortality rate and that money is a considerable barrier to assessing comprehensive care in pregnancy and preventing birth complications to both mother and baby in the place under study.

Thirdly, we found that inverse and significant correlation between maternal mortality ratio and the age of pregnant women was found. The government and policy are advised to take essence of maternal mortality among pregnant women very serious through enhanced and improved healthcare education, subsidized hospital services and improved socioeconomic status in the study areas

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