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Utilizing of Emergency Obstetric Care Services Among Childbearing Mothers in Makurdi Township, Benue State.

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ABSTRACT

The study examined Utilizing of emergency obstetric care services among childbearing mothers in Makurdi Township, Benue State. The study has two (2) Objectives of the Study, two (2) research questions and two (2) hypotheses. The study adopted cross-sectional survey research design. The study population consisted of 3,822 child bearing mothers attending maternal and child health care facilities in the three major child welfare Clinics in Makurdi metropolis. Mean and standard deviation were used to answer the research question while t-test and ANOVA statistics were used to test the hypotheses at 0.5 level of significance. Findings from the study revealed that location influences utilization of emergency obstetric care services (t-value = 8.15, p= .000 < .05).There is no age influence in utilization of emergency obstetric (F-cal. = .949, P-value = .3.87 > .05). The study concluded that the utilization of emergency obstetric care services among childbearing mothers in Makurdi, Benue State, reflects a blend of improvement and lingering barriers. While a significant number of women now attend antenatal clinics and opt for health facility deliveries, access to comprehensive emergency care remains uneven. The study recommends that government investment is needed to upgrade facilities and ensure 24/7 service availability. Solar power, clean water, and medical supplies must be prioritized. These improvements can reduce maternal deaths caused by delays in receiving care. Community involvement in monitoring facility performance is also crucial.

Keywords: *Utilizing, Emergency, Obstetric Care, Location, Age, Childbearing Mothers.*

Introduction

Maternal health remains a significant public health concern globally, particularly in sub-Saharan Africa, where maternal mortality rates remain unacceptably high. Emergency obstetric care (EmOC) services are critical interventions aimed at reducing maternal and neonatal morbidity and mortality by providing timely medical responses to complications during pregnancy and childbirth (WHO, 2022). Despite the availability of EmOC services in many settings, utilization by childbearing mothers remains suboptimal, contributing to avoidable deaths and complications.

Emergency Obstetric Care (EmOC) refers to the critical medical services provided to women experiencing complications during pregnancy, childbirth, or the immediate postpartum period. These complications such as severe bleeding, obstructed labor, hypertensive disorders, infections, or unsafe abortions are among the leading causes of maternal mortality, particularly in low- and middle-income countries like Nigeria. EmOC is designed to address these life-threatening conditions through timely interventions, including skilled medical attention, surgical procedures (like cesarean sections), blood transfusions, and the administration of essential medications (Babandi *et al*, 2024).

The World Health Organization classifies EmOC into two levels: Basic EmOC, which includes life-saving interventions like administering antibiotics, anticonvulsants, and manual removal of the placenta; and Comprehensive EmOC, which adds capabilities like surgery and blood transfusion (WHO, 2022). These services are ideally available 24/7 in well-equipped health facilities with trained personnel. Accessibility, quality, and affordability of EmOC are crucial indicators of a functional maternal healthcare system, and improving these services is essential for achieving Sustainable Development Goal 3, which aims to reduce global maternal mortality.

In countries like Nigeria, where maternal mortality remains alarmingly high, strengthening EmOC services is critical to saving lives. Challenges such as inadequate health infrastructure, shortage of skilled healthcare providers, socio-cultural barriers, and delayed referrals hinder effective EmOC delivery (Samira and Jamilu, 2019). Thus, strategic interventionssuch as community awareness, better referral systems, government investment in healthcare, and targeted training of birth attendants are vital for improving maternal health outcomes and ensuring safety of Pregnant mothers (Olajide *et al*, 2023)

Pregnancy is a natural biological process, but it is not without risks. Every pregnant woman, regardless of her health status, socioeconomic background, or age, faces the possibility of developing obstetric complications (Olajide *et al*, 2023). These complications can arise suddenly and unpredictably, even in women with no prior history of medical problems. Conditions such as hemorrhage, preeclampsia, obstructed labor, sepsis, or complications from unsafe abortion can develop quickly and require urgent medical intervention. This universal risk underscores the need for accessible and quality maternal healthcare services for all women.

While certain factors like teenage pregnancy, multiple pregnancies, previous cesarean delivery, or existing health conditions may increase the risk, no woman is entirely exempt. In fact, many life-threatening complications occur in women who are considered low-risk at the beginning of pregnancy. This highlights the importance of regular antenatal care, skilled birth attendance, and immediate access to emergency obstetric services when complications arise. Without these, even minor delays in treatment can lead to severe outcomes, including maternal or neonatal death.

Because the onset of obstetric complications is often unpredictable, universal preparedness is essential. Governments, communities, and healthcare systems must treat every pregnancy as potentially high-risk and ensure that adequate infrastructure, trained personnel, and emergency referral systems are in place (Ameh *et al*, 2029). Promoting awareness that *all* pregnancies carry inherent risks helps shift the focus from reactive to preventive care, encouraging timely access to skilled care and reducing the burden of maternal mortality.

Age has been consistently identified by numerous studies as a significant factor influencing the utilization of safe motherhood services. Women in the prime reproductive age group (20–34 years) are more likely to access and utilize antenatal care, skilled birth attendance, and postnatal care compared to adolescent girls and older women (United Nations Population Fund (UNFPA, 2021) Younger mothers, especially teenagers, often face barriers such as stigma, lack of knowledge, financial dependence, and limited autonomy, which hinder their ability to seek timely and appropriate maternal health care. Additionally, they may be less informed about the importance of safe motherhood services, making them more vulnerable to pregnancy-related complications.

Conversely, older women, particularly those above 35 years, may underestimate the risks associated with childbirth due to previous experiences and familiarity with the process. However, this group faces increased biological risks during pregnancy and childbirth, such as hypertension, gestational diabetes, and postpartum hemorrhage (Okafor *et al,* 2020). Despite their greater maturity and decision-making power, older women may delay seeking care due to perceived self-efficacy or cultural beliefs. Therefore, age-related differences play a crucial role in shaping women's attitudes, behaviors, and access to safe motherhood services, highlighting the need for age-specific strategies in maternal health programming.

Mental death is largely avoidable with timely and appropriate maternal healthcare interventions. Most mental deaths understood here as psychological or psychiatric conditions leading to fatal outcomes during or after pregnancy stem from direct obstetric complications that are either poorly managed or completely neglected (Komolafe, 2024). These complications, such as severe postpartum hemorrhage, eclampsia, obstructed labor, or sepsis, not only pose physical risks but can also lead to intense psychological trauma. The fear, anxiety, and stress experienced during such life-threatening events can trigger or worsen mental health conditions, especially in the absence of adequate emotional support and professional care.

Furthermore, the stigma surrounding mental illness in pregnancy often prevents women from seeking the help they need. In many low-resource settings, mental health is not integrated into maternal health services, leaving psychological complications unaddressed. As a result, women suffering from postpartum depression, psychosis, or trauma-related disorders may deteriorate rapidly, sometimes leading to suicide or neglect of their health, which contributes to maternal mortality (Olajide *et al,* 2023). Preventing mental death therefore requires a holistic approach to maternal care—one that includes the early detection and treatment of mental health issues, improved emergency obstetric care, and community-level awareness and support systems to ensure both the physical and psychological well-being of mothers.

The leading causes of mental death, such as severe postpartum depression, anxiety disorders, and postpartum psychosis, are treatable conditions when addressed by well-staffed and adequately trained healthcare systems. With the presence of skilled mental health professionals including psychiatrists, psychologists, psychiatric nurses, and social workers early identification and management of maternal mental health issues can be achieved (Ezeonu& Onah, 2020). These professionals play a critical role in offering timely counseling, medication when necessary, and continuous follow-up care. Well-staffed facilities are also better positioned to provide integrated maternal and mental health services, ensuring that women receive comprehensive care throughout pregnancy and after childbirth.

Moreover, the availability of trained personnel within maternal health settings helps in breaking the cycle of silence and stigma that often surrounds mental illness (Ezeonu & Onah, 2020). Health workers can educate women and families about warning signs of mental health deterioration and promote early intervention, reducing the risk of fatal outcomes. In contrast, understaffed or poorly equipped facilities often miss opportunities for timely diagnosis and treatment, allowing conditions to worsen (Ameh *et al,* 2029). Therefore, investing in a well-staffed mental health workforce within maternal care systems is key to preventing avoidable mental deaths and promoting overall maternal well-being.

Emergency Obstetric Care (EmOC) services are widely recognized as essential indicators for assessing the effectiveness and responsiveness of a health system. These services are designed to address life-threatening complications during pregnancy and childbirth, such as severe bleeding, eclampsia, sepsis, and obstructed labor (Okafor *et al,* 2020). The availability, accessibility, and quality of EmOC services reflect a health system's capacity to provide timely and appropriate interventions that save lives. When a health system can deliver comprehensive and basic EmOC services efficiently, it demonstrates its readiness to handle emergencies and reduce maternal mortality rates.

Furthermore, monitoring EmOC services offers valuable data for health planning and policy-making. Indicators such as the number of functioning EmOC facilities, their geographic distribution, the proportion of births attended by skilled personnel, and maternal case fatality rates help measure the impact of

healthcare investments. Regular tracking of these indicators reveals gaps in service delivery, infrastructure, staffing, and supplies, enabling governments and stakeholders to implement targeted improvements (Kabo *et al*, 2019). In this way, EmOC serves not only as a life-saving intervention but also as a reliable benchmark for evaluating and strengthening the overall health system.

Emergency Obstetric Care (EmOC), when adequately utilized, plays a critical role in reducing both maternal and neonatal mortalities that arise from pregnancy-related complications. Timely access to EmOC services ensures that life-threatening conditions such as hemorrhage, eclampsia, sepsis, and obstructed labor are promptly managed by skilled healthcare providers (Ezeonu& Onah, 2020). By preventing the progression of these complications, EmOC not only saves the lives of mothers but also enhances the chances of survival for newborns. The provision of essential interventions such as cesarean sections, blood transfusions, and neonatal resuscitation significantly reduces the risk of stillbirths and early neonatal deaths.

Moreover, effective EmOC utilization supports the mental well-being of mothers by preventing traumatic birth experiences that can lead to psychological complications such as postpartum depression and anxiety. When women are confident that quality care is available during obstetric emergencies, they experience reduced fear and stress throughout pregnancy and childbirth (Ugwu & Adewusi, 2021). This, in turn, contributes to better maternal mental health outcomes. Therefore, integrating EmOC into maternal health strategies not only addresses physical complications but also serves as a preventative approach to mental health challenges, creating a comprehensive framework for reducing both maternal and neonatal mortality. Therefore, this study set out to examine Utilizing of emergency obstetric care services among childbearing mothers in Makurdi Township, Benue State.

Objectives of the Study

The purpose of the study was to determine the extent of Utilizing of emergency obstetric care services among childbearing mothers in Makurdi Township, Benue State. Specifically, the study determined extent utilization of:

i. Emergency obstetric care services among childbearing mothers' based on location

ii. Emergency obstetric care services among childbearing mothers' based on age

Research questions

Two research questions were posed to guide the study

i. What is the extent of utilization of emergency obstetric care services among childbearing mothers' based on location

ii. What is the extent of utilization of emergency obstetric care services among childbearing mothers' based on age

Hypothesis

i. There is no significant different in extent of utilization of emergency obstetric care services among childbearing mothers' based on location

ii. There is no significant different in extent of utilization of emergency obstetric care services among childbearing mothers' based on age

Materials and Methods

This study was carried out in Makurdi, the state capital of Benue State in North Central Nigeria. It lies between latitude 7.730 and 8.320. It has a population of about 300,377 people. The majority of the population are farmers. The major ethnic groups are the Tiv, Idoma and Igede. As of 2007, Makurdi had an estimated population of 500,797. The study was conducted in three major child welfare Clinics in Makurdi metropolis: 1) Well child clinic of the Benue State University Teaching Hospital, 2) Makurdi, Child Welfare Clinic of the State Epidemiology Unit, Makurdi and 3) the Child Welfare Clinic of the Family Support Clinic, Makurdi.

The study was conducted among mothers of children aged 0-6 months, visiting under-five clinics in Makurdi, Benue state comprising Benue state University teaching hospital, Epidemiological unit and FSP clinic. The inclusion criteria included being resident in Makurdi or environs and having an infant aged between 0 and 6 months of age at the time of the study and attending fewer than five clinics in the selected health facilities.

The population of the study consisted of 3, 822 child bearing mothers attending maternal and child health care facilities in the three major child welfare Clinics in Makurdi metropolis. The sample size for this study was 333. This inline with suggestion of Cohen, Manion and Morion (2022) that when a population is 2,500 or above at 95% confidence level (5% interval), the sample size should be 333 or above. Multi stage sampling was used to draw the sample size for the study to arrive at 380.

Three hundred and eighty (380) questionnaire of questionnaires were administered to the child bearing mothers who were contacted attending the three major child welfare Clinics in Makurdi metropolis. Out of the 380 copies of questionnaires administered, 369 were retuned, which give a return of 98.9%. Out of the returned copies, 11 copies were not dully filled out and as a result, only 358 were dully filled which were used for data analysis. The responses were analyzed using mean, standard deviation, t-test statistics and One- way Analysis of Variance (ANOVA) statistic.

Results

Table 1: Extent of Utilization of Emergency Obstetric Care Service among child bearing Mothers based on location (n=358)

S/N	Emergency Obstetric Care Service	Urban (N=237)		Rural (N=121)	
		$\bar{X}$	SD	$\bar{X}$	SD
1	Blood transfusion	1.68	1.011	1.24	.538
2	Caesarian delivery	1.64	.937	1.34	.713
3	Assisted Virginal deliver	2.42	1.168	2.10	1.045
4	Manual removal of placenta	2.05	1.087	1.65	.711
5	Parental oxytocic	2.01	1.005	1.79	.811
6	Vacuum extraction	1.57	.932	1.14	.583
	Grand Mean	1.95	1.02	1.54	0.73

Result in table 1 showed that emergency obstetric care services were lowly utilized b child bearing mothers in urban areas as indicated by grand means of 1.95 and 1.54 respectively. The table further showed that the standard deviations range from .538 to 1.168 indicating that the responses of child bearing mothers were not far from each other

Table 2: Extent of Utilization of Emergency Obstetric Care Service among child bearing Mothers based on Age (n=358)

S/N	Emergency Obstetric Care Service	15-30 Yrs. (N=174)		31-44 Yrs. (N=157)		41 Yrs + (N=24)	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1	Blood transfusion	1.55	.968	1.46	.795	1.78	1.030
2	Caesarian delivery	1.51	.837	1.56	.925	1.56	.878
3	Assisted Virginal deliver	2.46	.129	1.19	1.103	1.95	1.230
4	Manual removal of placenta	1.92	.995	1.93	.997	1.70	.975
5	Parental oxytocic	2.01	.963	1.84	.938	1.88	.915
6	Vacuum extraction	1.44	.902	1.34	.772	1.70	.936
	Grand Mean	**1.81**	**.799**	**1.55**	**.921**	**1.76**	**.994**

Result in table 2 showed that emergency obstetric care services were lowly utilized by child bearing mothers' age 15-30 years. 31-44 years, and 45 years and above as indicated by grand means of 1.81, 1.55, 177 respectively. The table further shows that the standard deviation range from .772 to 1.230, indicating that the responses of childbearing mothers were not too far from each other.

Table 3: Summary of t-test on Utilization of Emergency Obstetric Care Service among child bearing Mothers based on location (n=358)

Age	Mean	SD	t	df	Sig
urban	2.57	3	.134		
			8.15	355	0.00*
Rural	2.25	0.29			

***= significant**

Result in table 3 showed the t-value with the corresponding P-value for extents of utilization of emergency obstetric care services among childbearing mothers based on location (t-value = 8.15, p= .000 < .05). Since the P-value was less than 0.5 level of significance at 355 degree of freedom, the null hypothesis of no significance difference in the utilization of emergency obstetric care services among CBMs based on location was therefore rejected. This implies that location influences utilization of emergency obstetric care services.

Table 4: Summary Analysis of Variance (ANOVA) on Utilization of Emergency Obstetric Care Service among child bearing Mothers based on Age (n=358)

Age	Sum of Squares	df	Mean Square	F-cal	P-value
Between Groups	.268	3	.134	.9.49	.3.87
Within Groups	50.767	355	.141		
Total	**51.035**	**358**			

**** = Not significant**

Result in table 4 showed the calculated F-value with the corresponding P-value for extents of utilization of emergency obstetric care services among childbearing mothers based on age (F-cal. = .949, P-value = .3.87 > .05). Since the P-value was greater than .05 level of significance at 3 and 355 degree of freedom, the null hypothesis of no significant difference in the utilization of emergency obstetric care services among child bearing mothers based on age was therefore not rejected. This implies that there is no age influence in utilization of emergency obstetric care.

Discussion of Findings

Finding in table 3 showed that location influences utilization of emergency obstetric care services. This finding suppot the finding of Okafo*et al(*2020) who found that location plays a significant role in determining the extent to which women utilize emergency obstetric care services. Geographic barriers such as long distances to health facilities, poor road networks, and lack of affordable transportation often hinder timely access to EmOC, particularly in rural and semi-urban communities. Studies have shown that women living in rural areas are more likely to delay seeking care or resort to traditional birth attendants due to the physical inaccessibility of health centers offering comprehensive obstetric care. Moreover, the distribution of healthcare infrastructure is often skewed in favor of urban areas, leaving rural women underserved. This disparity not only increases the risk of maternal mortality but also perpetuates inequality in health outcomes (Ameh et al., 2019).Furthermore, the availability and quality of services at local health centers significantly influence women's health-seeking behavior. In many underserved locations, primary health centers may lack the skilled personnel, equipment, and medications required to handle obstetric emergencies, thereby discouraging women from utilizing them even when geographically nearby. In contrast, urban women often have better access to well-equipped tertiary hospitals and are more likely to receive timely interventions. A recent national survey confirmed that women in urban Nigeria were twice as likely to access EmOC services compared to their rural counterparts, largely due to infrastructural and service-related advantages (NPC & ICF, 2021). Addressing these location-based disparities through improved health facility distribution, community-based referral systems, and investment in rural healthcare delivery is essential for increasing EmOC utilization and reducing maternal mortality.

Finding in table 4 showed that that there is no age influence in utilization of emergency obstetric. This finding suppot the finding of Okafo*et al* (2020) who suggest that age may not be a significant determinant in the utilization of emergency obstetric care services among childbearing women. This challenges earlier assumptions that younger or older mothers are less likely to seek EmOC due to inexperience or complacency. Recent evidence indicates that women across various reproductive age groups—whether adolescent, young adult, or older mothers—demonstrate similar health-seeking behavior when faced with obstetric complications, especially in areas where health education and awareness programs are active (Ameh et al., 2019). This could be attributed to increasing access to maternal health information, community health outreach, and antenatal counseling that cuts across all age groups, thereby equalizing their awareness and response to emergencies.

Moreover, the decision to utilize EmOC appears to be more strongly influenced by other factors such as educational level, socio-economic status, distance to health facility, cultural norms, and previous obstetric experiences rather than chronological age alone. In a survey conducted by the National Population Commission (NPC) and ICF (2021), no statistically significant correlation was found between maternal age and EmOC usage when adjusted for these confounding variables. This suggests that policies targeting improved EmOC utilization should focus less on age-based segmentation and more on addressing systemic and socio-cultural barriers that affect women of all ages equally. Such a holistic approach is likely to yield more impactful and equitable maternal health outcomes.

Conclusion

The utilization of emergency obstetric care services among childbearing mothers in Makurdi, Benue State, reflects a blend of improvement and lingering barriers. While a significant number of women now attend antenatal clinics and opt for health facility deliveries, access to comprehensive emergency care remains uneven. Geographic location, transportation challenges, and poor infrastructure limit timely access, especially in rural settings. Educational level, income, and awareness also shape service uptake. Many still rely on traditional birth attendants due to cultural norms or mistrust of formal services. Improving health systems, community outreach, and quality of care is essential to closing these gaps.

Recommendations

i. Most rural health centers lack the equipment and trained staff necessary for emergency obstetric care. Government investment is needed to upgrade facilities and ensure 24/7 service availability. Solar power, clean water, and medical supplies must be prioritized. These improvements can reduce maternal deaths caused by delays in receiving care. Community involvement in monitoring facility performance is also crucial.

ii. Distance and poor road networks hinder access to emergency care, especially at night or during labor crises. Local and state authorities should establish ambulance services and safe transport routes. Referral centers must be linked to lower-tier clinics with real-time communication. Prompt transport reduces delays in receiving lifesaving interventions. Public-private partnerships could also support ambulance availability.

iii. Many women still lack knowledge of the importance of skilled birth attendance and EmOC. Culturally sensitive education campaigns should be conducted through radio, community leaders, and health talks. Men and family decision-makers should be involved in outreach efforts. Awareness can change traditional preferences for home births. Education empowers women to seek timely and appropriate care.

iv. A shortage of competent and motivated staff affects the quality of EmOC services. Continuous training in emergency procedures, respectful maternity care, and patient communication is vital. Incentives such as housing, salaries, and career advancement encourage rural retention. Supervision and mentorship programs can help maintain high standards. Health workers' attitudes greatly impact maternal health-seeking behavior.

v. Out-of-pocket costs discourage many women from accessing care when complications arise. Governments should subsidize emergency obstetric care, including transportation and medication. Health insurance schemes should be made affordable and accessible to rural populations. Reducing financial barriers will improve equity in maternal health outcomes. Donor support can complement national health budgets where needed.

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