

Knowledge And Utilization Of Safe Motherhood Services Among Child Bearing Mothers Attending Health Care Facilities In Awka North Local Government Area Of Anambra State

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Abstract: The study investigated knowledge and utilization of safe motherhood services among child bearing mothers attending health care facilities in Awka North L.G.A of Anambra State. Eight research questions and six null hypotheses guided the study. The descriptive survey design was adopted for the study. The population of the study was 12, 733 child bearing mothers in the Awka North L.G.A out of which 749 child bearing mothers drawn using multi-stage sampling procedure involving random, purposive and accidental sampling techniques were sampled for the study. Safe Motherhood Knowledge Test (SMKT) and Safe Motherhood Utilization Questionnaire (SMUQ) validated by three experts was used as instrument for data collection. The reliability of SMKT was established using Kuder-Richardson 20 to be 0.89 while that of SMUG was established using Cronbach Alpha to be 0.60. The data obtained was analyzed using mean, standard deviation, t-test and analysis of variance (ANOVA). The findings of the study showed that the women of child bearing age attending health care facilities in Awka North LGA of Anambra state are fairly knowledgeable about safe motherhood services, and their extent of utilization of safe motherhood services is low. It was recommended that seminars and workshops should be conducted in order to sensitize child bearing mothers on safe motherhood services and need to use them more frequently.

Keyword: Knowledge, utilization, safe, motherhood, child-bearing

I. INTRODUCTION

Pregnancy and childbirth are essential for existence of the entire human race but maternal death is a twofold misfortune affecting both mother and child. Women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. Other complications may exist before pregnancy but are worsened during pregnancy, especially if not managed as part of the woman's care. The major complications that account for nearly 75% of all maternal deaths are severe bleeding (mostly bleeding after childbirth), infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), complications from delivery, unsafe abortion. The remainder

are caused by or associated with infections such as malaria or related to chronic conditions like cardiac diseases or diabetes. Eagly and Chaiken (2021) opined that most maternal deaths are preventable, as the health-care solutions to prevent or manage complications are well known. All women need access to high quality care in pregnancy, during and after childbirth. Maternal health and newborn health are closely linked. It is particularly important that all births are attended by skilled health professionals, as timely management and treatment can make the difference between life and death for the mother as well as for the baby.

Safe motherhood means ensuring that all women have access to information and services they need to go safely through pregnancy and childbirth. It enhances the quality and safety of women's lives by adopting a combination of health

and non-health strategy. Safe motherhood services comprises of antenatal care services, postnatal care services, family planning services, emergency obstetric services, post abortion care services, delivery services, prevention of mother to child transmission of HIV, syphilis and gonorrhoea. Safe motherhood begins before conception with proper nutrition and a healthy lifestyle. Planned pregnancy, appropriate prenatal care, prevention of complications when possible, early and effective treatment of complications when they occur are all essential elements of maternal care. Safe motherhood requires the support of many diverse sectors of the nation, the family, educators, employers, health care providers, community groups, and others. Good maternity care is an investment in the physical, emotional, social, and economic well-being of women, their children, and their families and, by extension, the nation. Reducing inequalities in accessing professional care is key to attaining the goal for good quality and compassionate maternal health. The challenges are how to deliver services and scale up interventions, particularly to those who are vulnerable, hard to reach, marginalized, and excluded.

Safe motherhood should aim to reduce the death and complications resulting from pregnancy and childbirth. It may be taken as a way of ensuring that all women received the care they need to be safe and healthy throughout the pregnancy and childbirth. Safe motherhood aims at preventing maternal and perinatal morbidity and mortality and can be seen as the ability of a woman to have a healthy pregnancy and delivery. Making motherhood safe requires action on three fronts namely reducing the number of high-risk and unwanted pregnancies, reducing the number of obstetric complications and reducing the case fatality rate in women with complications (WHO 2019). Achieving safe motherhood and reducing maternal mortality requires that all woman should have access to contraception to avoid unintended pregnancies, focused antenatal care, skilled care at the time of birth and access to quality emergency obstetric care.

According to Rosenfield and Maine (2019), in the drive to reduce maternal mortality and due to the increasing attention to mortality raised by experts such as the World Bank, United Nation Population (UNFPA) and the World Health Organization (WHO), safe motherhood conference was organized in Nairobi, Kenya in 1987 and the goal of a 50 percent reduction in pregnancy complications was formulated. It was in this conference that a document on future strategies for the improvement of the health of women was adopted. This was officially launched in Nigeria in September, 1990. Safe motherhood initiative is to address the medical causes of maternal deaths and undertake the related activities to ensure that childbearing mothers have access to comprehensive reproductive health services. This services could be achieved through a programme of inter-linked steps which strive to provide family planning services to prevent unwanted pregnancies, antenatal and delivery care at the community level with quick access to referral services for complication, postpartum services, promotion of breastfeeding, immunization and nutrition services. Services for the safe motherhood must be integrated into the healthcare delivery system and necessary inputs made available. Safe motherhood

seeks to raise awareness about maternal morbidity and mortality.

Since the launching of the Safe Motherhood services, improving maternal health and reducing maternal mortality has continued to be the focus of many international health programmes. For instance, improving maternal health is included as the fifth Millenium Development Goal (MDG). One of the MDG targets is to reduce by three quarters, between 1990 and 2015, the rate of maternal mortality. These pillars according to Adesokan (2013) include antenatal care, family planning, obstetric care, postnatal care, post-abortion care and control of sexually transmitted infections (STIs), human immunodeficiency virus and acquired immunodeficiency diseases syndrome (HIV and AIDS). These six pillars will form the basis for determining the knowledge and Utilization of safe motherhood services among women of childbearing age attending Health care facilities in Awka North L.G.A of Anambra State which is considered in this study.

Safe motherhood outlined the strategies and specific interventions for the reduction of maternal deaths. Maternal deaths have devastating impacts on families and communities which is not a common event in several parts of the developing world. An estimated 600,000 women die yearly from complications of pregnancy, childbearing and unsafe abortions worldwide (WHO, 2014). The high prevalence of maternal death has been a source of great concern to governments and development planners of most countries of the world. Maternal mortality is most important indicator of maternal health and well-being in any country and as a result, it has been central to the health sector of every government.

Knowledge is being familiar with someone or something which can include facts, information, description or skills acquired through experiences or education. According to Craven (2021), knowledge of safe motherhood can be referred to as the theoretical or practical understanding of a subject. Adequate knowledge of safe motherhood among child bearing mothers will help them not only to utilize adequate safe motherhood services, but also to appreciate the fact that with safe motherhood, one can live well and prevent most of the health problems that are associated with pregnancy and child birth.

Utilization of safe motherhood services among women of child bearing age is one form of health behaviour that occurs within an institutional structure, for instance, family, society or the health care services. Strategic policy formulation in health care system should be grounded on the information concerning health promotion, utilization behaviour and determinants of these behaviours (Iyaniwura & Yusuf, 2019). In the context of this study utilization implies the use of the available safe motherhood services for the purpose of improving the quality of lives of mothers in their reproductive age and those of their children. Utilization refers to the extent to which Safe Motherhood services is being used by child-bearing mothers throughout pregnancy and child birth. Brandy (2020) stated that modern health services are available in the dispensaries, clinics, health centers, mobile clinics, maternity homes. Good facilities may exist but may be poorly used by mothers reasons for non-utilization of services to include

ignorance, illiteracy, fear and the belief that one has to be sick to look for health services (Brandy 2020).

Aniebube (2010), reported that one of the major causes of maternal deaths is inadequate safe motherhood services such as antenatal care. Nwosu, Uruma and Uruakpa (2012), reported that approximately two-thirds of all Nigeria women and three quarters of rural Nigeria women deliver outside the health facilities and without medically skilled attendants present. Data from the Nigeria Demographic and Health Surveys (2010) indicated that among pregnant women, only about 64 percent received antenatal care from a qualified health care provider.

There are wide regional variations in antenatal care attendance in Nigeria, with only about 28 percent of women in the Northwest Zone and 54 percent in the Northeast Zone receiving antenatal care from trained health care provider (Aniebube 2010). The rest either did not receive antenatal care at all or received care from untrained traditional birth attendants, herbalists, or religious diviners. Certain factors that may contribute or have direct or indirect influence on safe motherhood services are the age of the mother at the delivery of the child, education, occupation, as well as location where the mother resides and where the safe motherhood services can be obtained.

Muokwogwo (2012) identified the woman's age as the most universal factor predisposing a woman to risk of pregnancy related injuries and deaths. Lozano (2011) noted that the age of a woman during pregnancy determines her level of exposure to pregnancy related illnesses. Lama also pointed out that pregnancy related illnesses such as ectopic pregnancy, miscarriage, gestational diabetes and preeclampsia are commonly encountered by women within 30 years and above and women under 15 years of age.

Education of the woman is another factor that affects the awareness and utilization of safe motherhood among women of child-bearing age. The influence of education on safe motherhood has been identified by Harrison (2012), who stated that income and educational status of the woman are influencing factors in the awareness and utilization of maternity clinics during pregnancy or delivery which increases maternal mortality among these women.

Location may also be associated with safe motherhood awareness and utilization. Location as indicated by WHO (2013) is an environmental factor which can be associated with safe motherhood utilization. It is assumed that the location of the mother will determine where she will access safe motherhood services. In areas where access to hospital or health centres are difficult, the awareness and utilization of safe motherhood may be poor. Poor safe motherhood services may be more among rural than urban woman who have more access to prenatal care. These variables may influence the awareness and utilization of safe motherhood services among women of childbearing age in Awka North L.G.A of Anambra State.

Parity directly influences the awareness and utilization of safe motherhood services like antenatal care services and postnatal care services in Nigeria for example, women in their first pregnancy are more likely to seek care due to the perception that first pregnancy is precious compared to other pregnancies; this is opined by Andersen and Newman (2005)

that perception of need is not a direct reason for the utilization of safe motherhood services, but it result in the preference to make use of those services. Having more children may cause resource constraints; where the income is not much to start with as well as too many demands on their time force them to forgo health care. The time and cost pressures associated with larger families causes women with a large number of children to underutilize available safe motherhood services.

Women especially childbearing mothers (15-49 years) should be the important target in any government's policy formulation and implementation with reference to safe motherhood. This is because the maintenance of adequate health particularly of infants, children and the mothers are critical to attainment of optimum maternal health and national development (WHO 2014) this justifies the selection of women of childbearing age as the target population for the present study. Based on the aforementioned, the researcher felt the need to carry out this present study on the awareness and utilization of safe motherhood services among women of childbearing age attending health care facilities in Awka North local government area.

PURPOSE OF THE STUDY

The purpose of the study was to determine the knowledge and utilization of safe motherhood services among child bearing mothers attending health care facilities in Awka North L.G.A of Anambra State. Specifically; the study sought to determine the:

- ✓ Knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State.
- ✓ Knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State based on their age.
- ✓ Knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra state based on their level of Education.
- ✓ Knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State based on their location.
- ✓ Extent Utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State.
- ✓ Extent Utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra state based on their age.
- ✓ Extent Utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State based on their level of Education.
- ✓ Extent Utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. of Anambra State based on their location.

RESEARCH QUESTIONS

- ✓ What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State?
- ✓ What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their age?
- ✓ What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their level of education?
- ✓ What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their location?
- ✓ What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State?
- ✓ What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their age?
- ✓ What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their level of Education?
- ✓ What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their location?

HYPOTHESES

- ✓ There is no significant difference in the knowledge of safe motherhood services among child bearing mothers attending health care facilities in Awka North LGA based on their age.
- ✓ There is no significant difference in the knowledge of safe motherhood services among childbearing mothers in Awka North LGA of Anambra State based on their level of education.
- ✓ There is no significant difference in the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their location.
- ✓ There is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their age.
- ✓ There is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their level of education.
- ✓ There is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their location.

II. METHOD

The descriptive survey research design was employed for the study. The study was carried out in Awka North L.G.A of Anambra State. According to National population census (2006), the population of the women of child bearing age (15 to 49 years) in Awka North LGA is 12,733 and they are those who had the capacity of utilizing or not utilizing safe motherhood services and therefore, constituted the population of the study. The sample size for this study consisted of 749 child bearing mothers who were drawn from the estimated population of 12,733 child bearing mothers in the L.G.A. Multi stage sampling procedure was utilized to get the sample for the study. Simple random sampling technique was employed in the first stage to select seven towns out of the 10 towns in Awka North LGA. Purposive sampling technique was used in the second stage to select 14 Health care facilities, two each from the seven selected towns, in order to ensure proper representation of the towns used for the study. Using convenient\accidental sampling, 749 child bearing mothers were recruited from Awka North L.G.A.

Two instruments called safe motherhood knowledge test (SMKT) and safe motherhood utilization questionnaire (SMUQ) were used for data collection. These instruments were developed by the researcher through review of literature, use of textbooks, interviews of experts and researcher's experience. The safe motherhood knowledge test consisted of 25 statements with a 'yes or no' option, which was used to assess the knowledge of safe motherhood services by childbearing mothers in Awka North L.G.A. The safe motherhood utilization questionnaire comprised of 25 questions which was used to assess the utilization of safe motherhood services by childbearing mothers, and was rated on a five point scale of: very highly utilized, Highly utilized, Moderately utilized and Very lowly utilized. Content and face validity of the instrument were established with the help of two experts from the department of Human Kinetics and Health Education and one expert from measurements and evaluation. All of them are from Nnamdi Azikiwe University Awka. The reliability of the section B of the instrument (SMKT) was computed using Kuder-Richardson, 20(20K-R) statistic. This gave a value of 0.89. Cronbach Alpha statistic was used to establish the reliability of the items in section C (SMUQ), this gave the reliability co-efficient of 0.77. Since the reliability co-efficient is above 0.60, the instrument was considered reliable for use in the present study.

The instruments were administered with the aid of three research assistants. Mean and standard Deviation was used to answer the research questions while t-test statistic and Analysis of Variance (ANOVA) will be used to test the hypothesis at 0.05 level of significance. For research question 1-4 on knowledge of safe motherhood services, the response option 'yes or no' will be scored '1' and '0' respectively. A maximum of '25' and minimum of '0' was obtainable. So the decision rule was that any score ranging from 0-8 indicated poor knowledge, scores from 9-16 was fair and scores ranging from 17-25 indicated adequate knowledge. For research question '5-8' the criteria for deciding the extent of utilization of safe motherhood services was that scores ranging from '25.00-45.00' indicated very low utilization, '46.00-

65.00' for low utilization, '66.00-85.00' for moderately utilized, '86.00-105.00' for highly utilized and '106.00-125' for very highly utilized. The t-test statistics was utilized for testing of the null hypotheses at 0.05 level of significance. The decision rule for the null hypothesis is that wherever p-value was less than 0.05, the null hypothesis was rejected; otherwise, the null hypothesis was accepted.

III. RESULTS

Research Question 1: What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State?

Group	N	\bar{x}	SD	Decision
Child bearing Mothers	749	14.33	3.27	Fair knowledge

Table 1: Mean Knowledge Score on Safe Motherhood Services among Mothers Attending Health Care Facilities

Table 1 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State have a mean knowledge scores of 14.33 on safe motherhood services. The mean knowledge score of 14.33 indicates that child bearing mothers attending health care facilities in Awka North LGA of Anambra State have a fair knowledge of safe motherhood services.

Research Question 2: What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their age?

Group	Age bracket	N	\bar{x}	SD	Decision
Child bearing Mothers	18-25	327	14.15	3.17	Fair knowledge
	26-33	271	14.49	3.36	Fair knowledge
	34-41	102	14.44	3.34	Fair knowledge
	42 above	49	14.31	3.36	Fair knowledge

Table 2: Mean Knowledge Score on Safe Motherhood Services among Mothers Attending Health Care Facilities based on Age

Table 2 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who are within the age bracket of 18-25 have a mean knowledge scores of 14.15 on safe motherhood services, with those within the age bracket of 26-33 having a mean knowledge score of 14.49 where those within 34-41 years have mean knowledge score of 14.44 and those who are 42 and above have mean knowledge score of 14.31 on safe motherhood services. The mean knowledge score range of 14.15-14.49 on safe motherhood services possessed by that child bearing mothers of different age brackets, attending health care facilities in Awka North LGA of Anambra State indicates that they have a fair knowledge of safe motherhood services irrespective of their age.

Research Question 3: What is the knowledge of safe motherhood services among childbearing mothers attending

health care facilities in Awka North LGA of Anambra State based on their level of Education?

Group	Educational Level	N	\bar{x}	SD	Decision
Child bearing Mothers	Primary	36	13.33	2.53	Fair knowledge
	Secondary	298	14.27	3.21	Fair knowledge
	Tertiary	319	14.43	3.37	Fair knowledge
	Non-Formal	96	14.53	3.37	Fair knowledge

Table 3: Mean Knowledge Score on Safe Motherhood Services among Mothers Attending Health Care Facilities based on Level of Education

Table 3 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who have primary level of education had a mean knowledge scores of 13.33 on safe motherhood services, with those with secondary level education having a mean knowledge score of 14.27 where those who have tertiary level education had mean knowledge score of 14.43 and those with non-formal education have mean knowledge score of 14.53 on safe motherhood services. The mean knowledge score range of 14.27-14.53 on safe motherhood services possessed by child bearing mothers of different educational level who attend health care facilities in Awka North LGA of Anambra State indicates that they have a fair knowledge of safe motherhood services irrespective of their educational level.

Research Question 4: What is the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their location?

Group	Location	N	\bar{x}	SD	Decision
Child bearing Mothers	Urban	436	14.23	3.20	Fair knowledge
	Rural	313	14.46	3.37	Fair knowledge

Table 4: Mean Knowledge Score on Safe Motherhood Services among Mothers Attending Health Care Facilities based on Location

Table 4 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who are in the urban area had a mean knowledge scores of 14.23 on safe motherhood services while those who are in the rural area had a mean knowledge score of 14.46. The mean knowledge score range of 14.23-14.46 on safe motherhood services possessed by child bearing mothers at different locations who attend health care facilities in Awka North LGA of Anambra State indicates that they have a fair knowledge of safe motherhood services irrespective of their location.

Research Question 5: What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State?

Group	N	\bar{x}	SD	Decision
Child bearing Mothers	749	52.43	13.85	Low Extent

Table 5: Mean Rating of the Extent of Utilization of Safe Motherhood Services among Mothers Attending Health Care Facilities

Table 5 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State have a mean rating of the extent of utilization of safe motherhood services of 52.43. The mean rating of 52.43 indicates that child bearing mothers attending health care facilities in Awka North LGA of Anambra State utilize safe motherhood services to a low extent.

Research Question 6: What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their age?

Group	Age bracket	N	\bar{x}	SD	Decision
Child bearing Mothers	18-25	327	52.43	13.99	Low Extent
	26-33	271	52.63	13.88	Low Extent
	34-41	102	52.75	14.06	Low Extent
	42 above	49	50.57	12.52	Low Extent

Table 6: Mean Rating of the Extent of Utilization of Safe Motherhood Services among Mothers Attending Health Care Facilities based on Age

Table 6 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who are within the age bracket of 18-25 have a mean rating of extent of utilization of safe motherhood services of 52.43, with those within the age bracket of 26-33 having a mean utilization rating of 52.63 where those within 34-41 years have mean utilization rating of 52.75 and those who are 42 and above have mean utilization rating of 50.57 on safe motherhood services. The mean rating scores 50.57-50.75 on safe motherhood services utilized by that child bearing mothers of different age brackets, attending health care facilities in Awka North LGA of Anambra State indicates that they all use safe motherhood services to a low extent irrespective of their age.

Research Question 7: What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their level of Education?

Group	Educational Level	N	\bar{x}	SD	Decision
Child bearing Mothers	Primary	36	59.92	17.41	Low Extent
	Secondary	298	51.80	13.29	Low Extent
	Tertiary	319	52.36	13.91	Low Extent
	Non-Formal	96	51.78	13.30	Low Extent

Table 7: Mean Rating of the Extent of Utilization of Safe Motherhood Services among Mothers Attending Health Care Facilities based on Level of Education

Table 7 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who have primary level education have a mean rating of extent of

utilization safe motherhood services of 59.92, with those having secondary level education having a mean utilization rating of 51.80 where those with tertiary level education have mean utilization rating of 52.36 and those who have non-formal education have mean utilization rating of 51.78 on safe motherhood services. The mean rating scores 51.78-59.91 on safe motherhood services utilized by that child bearing mothers of different educational level, attending health care facilities in Awka North LGA of Anambra State indicates that they all use safe motherhood services to a low extent irrespective of their level of education.

Research Question 8: What is the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA of Anambra State based on their location?

Group	Location	N	\bar{x}	SD	Decision
Child bearing Mothers	Urban	436	52.39	13.891	Low Extent
	Rural	313	52.48	13.820	Low Extent

Table 8: Mean Rating of the Extent of Utilization of Safe Motherhood Services among Mothers Attending Health Care Facilities based on Location

Table 8 shows that child bearing mothers attending health care facilities in Awka North LGA of Anambra State who are in the urban area had a mean rating of extent of utilization of safe motherhood services of 52.39 while those who are in the rural area had a mean utilization rating score of 52.48. The mean rating of extent of utilization of safe motherhood services ranging from 52.39-52.48 by child bearing mothers at different locations who attend health care facilities in Awka North LGA of Anambra State indicates that they utilize safe motherhood services to a low extent irrespective of their location.

Hypothesis 1: There is no significant difference in the knowledge of safe motherhood services among child bearing mothers attending health care facilities in Awka North LGA based on their age.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.861	3	6.287	.586	.625
Within Groups	7999.652	745	10.738		
Total	8018.513	748			

Table 9: Analysis of Variance on Significance of Difference in Knowledge of Safe Motherhood Services among Child Bearing Mothers based on Age

Table 9 shows that there is no significant difference in the knowledge of safe motherhood services among child bearing mothers based on age, $F(3, 745) = 0.586$, $P\text{-value}(0.625) > 0.05$. The null hypothesis was therefore not rejected meaning that there is no significant difference in the knowledge of safe motherhood services among child bearing mothers attending health care facilities in Awka North LGA based on their age.

Hypothesis 2: There is no significant difference in the knowledge of safe motherhood services among childbearing mothers in Awka North LGA of Anambra State based on their level of education.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	44.248	3	14.749	1.378	.248
Within Groups	7974.264	745	10.704		
Total	8018.513	748			

Table 10: Analysis of Variance on Significance of Difference in Knowledge of Safe Motherhood Services among Child Bearing Mothers based on Level of Education

Table 10 shows that there is no significant difference in the knowledge of safe motherhood services among child bearing mothers based on level of education, $F(3, 745) = 1.378$, $P\text{-value}(0.248) > 0.05$. The null hypothesis was therefore not rejected meaning that there is no significant difference in the knowledge of safe motherhood services among child bearing mothers attending health care facilities in Awka North LGA based on their level of education.

Hypothesis 3: There is no significant difference in the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their location.

Location	N	\bar{x}	SD	DF	t-value	P-value	Decision
Urban	436	14.23	3.20				Not Significant
Rural	313	14.46	3.37	747	0.974	0.331	

Table 11: T-test on Significance of Difference in Knowledge of Safe Motherhood Services among Child Bearing Mothers based on Location

Table 11 shows that, at 0.05 level of significance and t-value of 0.974, the p-value of 0.331 is greater than 0.05. Thus, the null hypothesis is not rejected. Therefore, there is no significant difference in the knowledge of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their location.

Hypothesis 4: There is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their age.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	190.741	3	63.580	.330	.803
Within Groups	143334.543	745	192.395		
Total	143525.284	748			

Table 12: Analysis of Variance on Significance of Difference in the Extent of Utilization of safe Motherhood Services among Childbearing Mothers based on Age

Table 12 shows that there is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers based on age, $F(3, 745) = 0.330$, $P\text{-value}(0.803) > 0.05$. The null hypothesis was therefore not rejected meaning that there is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their age.

Hypothesis 5: There is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their level of education.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2177.267	3	725.756	3.825	.010
Within Groups	141348.017	745	189.729		
Total	143525.284	748			

Table 13: Analysis of Variance on Significance of Difference in the Extent of Utilization of safe Motherhood Services among Childbearing Mothers based on Level of Education

Table 13 shows that there is a significant difference in the extent of utilization of safe motherhood services among childbearing mothers based on level of education, $F(3, 745) = 3.825$, $P\text{-value}(0.010) < 0.05$. The null hypothesis was therefore rejected meaning that there is a significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their level of education.

(I) Level of Education	(J) Level of Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Primary Education	Secondary	8.115*	2.430	.011	1.30	14.92
	Tertiary	7.556*	2.422	.022	.77	14.34
	Non-Formal	8.135*	2.692	.028	.59	15.68
Secondary Education	Primary	-8.115*	2.430	.011	-14.92	-1.30
	Tertiary	-.558	1.110	.969	-3.67	2.55
	Non-Formal	.021	1.6161.000		-4.51	4.55
Tertiary Education	Primary	-7.556*	2.422	.022	-14.34	-.77
	Secondary	.558	1.110	.969	-2.55	3.67
	Non-Formal	.579	1.603	.988	-3.91	5.07
Non-Formal Education	Primary	-8.135*	2.692	.028	-15.68	-.59
	Secondary	-.021	1.6161.000		-4.55	4.51
	Tertiary	-.579	1.603	.988	-5.07	3.91

*. The mean difference is significant at the 0.05 level.

Table 14: Scheffe PostHoc Analysis of Direction of Significant Differences in the Extent of Utilization of Safe Motherhood Services among Childbearing Mothers based on Educational Level

Table 14 shows that there is a significant in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities who have primary level education and those who have secondary level education in favour of those with primary level education. Table 14 also shows that there is a significant in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities who have primary level education and those who have tertiary level education in favour of those with primary level education. Table 14 further shows that there is a significant in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities who have primary level education and those who have non-formal education in favour of those with primary education. No significant difference was observed among any other educational level in their extent of utilization of health care facilities. Thus, child bearing mothers with primary level of education significantly utilize health care facilities more than child bearing mothers who have secondary, tertiary or non-formal education.

Hypothesis 6: There is no significant difference in the extent of utilization of safe motherhood services among

childbearing mothers attending health care facilities in Awka North LGA based on their location.

Location	N	\bar{x}	SD	DF	t-value	P-value	Decision
Urban	436	52.39	13.89	747	0.092	0.926	Not Significant
Rural	313	52.48	13.82				

Table 15: T-test on Significance of Difference in the Extent of Utilization of Safe Motherhood Services among Child Bearing Mothers based on Location

Table 15 shows that, at 0.05 level of significance and t-value of 0.092, the p-value of 0.926 is greater than 0.05. Thus, the null hypothesis is not rejected. Therefore, there is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North LGA based on their location.

IV. DISCUSSION

The result in table 1 shows that the mean knowledge score of 14.33 indicates that child bearing mothers attending health care facilities in Awka North L.G.A. of Anambra state have a fair knowledge of safe motherhood services. The finding is in consonance with the report of Dhagavjur (2019) that 84% of women have fair knowledge of safe motherhood services. The findings were expected because safe motherhood services have been in existence for a very long time now. And child bearing mothers in one way or another must have heard about it, or participated in any of them before, during and after child birth. This finding is in contrary with the finding of Dahiru (2022), he reported that child bearing mothers in Kano state possessed low knowledge of safe motherhood services.

Result in table 2 revealed that most of the childbearing mothers of different age bracket in Awka North L.G.A. possessed fair knowledge of safe motherhood services. This finding supports that of Okhakume et al (2018) that child bearing mothers based on their ages have a fair knowledge of safe motherhood. The knowledge mean score obtained in this table indicates a slight difference in their knowledge, the findings were not surprising because the middle aged mothers and educated mothers are expected to demonstrate in depth knowledge of Safe motherhood services, furthermore it believed that the more one adds years to her life, the more knowledgeable she becomes and becomes exposed to situations.

Results in table 3 revealed that child bearing mothers in Awka North L.G.A. with different level of education possessed fair knowledge of safe motherhood services. This finding is surprising because mothers with tertiary education were expected to poses a very high knowledge on safe motherhood services.

The result in table 4 shows that irrespective of their location, child bearing mothers living in either in rural or urban area possessed fair knowledge of safe motherhood services. This finding is not in line with the finding of Dahiru (2022) that child bearing mothers in kano state, has low knowledge of safe motherhood services regardless of their location. The result was not expected because mother dwelling in urban areas are supposed to be more knowledgeable than

those in the rural area owing to the fact that they are more exposed to information and technology.

On the test of hypotheses 1 and from the result shown in table 9, the statement of hypotheses 1 was accepted, this implies that there was therefore no significant difference in the Knowledge of safe motherhood services among child bearing mothers based on their age. It was therefore decided in the test of hypotheses 2, table 10, that there was no significant difference in knowledge of child bearing mothers attending Health care facilities in Awka North L.G.A. based on their level of education. As indicated by hypotheses 3 in table 11, there was no significant difference in knowledge of child bearing mothers attending Health care facilities in Awka North L.G.A. based on their location.

The result in table 5 showed that generally, child bearing mothers attending health care facilities in Awka North L.G.A. of Anambra state have a low extent of utilization of safe motherhood services. The mean rating of 52.43 indicates that child bearing mothers attending health health care facilities in Awka North L.G.A. of Anambra State utilize safe motherhood services at a low extent. This is supported by Merenu et al (2017) that reported a low extent of utilization of safe motherhood services. This could be as a result of different factors that determine the extent of utilization of these safe motherhood services. This result is not surprising because of the innate fear that still trials the use of most of these services , the cost involved in the utilization of these services and also because some of the services are not readily available. But considering the benefits of these services, every child bearing mother is expected to embrace and utilize each of the services regularly. However, the findings contradicts that found by Afia et al (2022) who revealed high extent of utilization of safe motherhood services by child bearing mothers.

The result in table 6 shows the mean rating scores 50. 57-50.75 on safe motherhood services utilized by child bearing mothers of different age brackets attending health care facilities in Awka North L.G.A. of Anambra state indicates that they all use safe motherhood services to a low extent. This findings are in consonance with Agu (2015) who reported that mothers in 3 category in Nsukka health district utilizes safe motherhood services to a low extent. The findings is not in consonance with the report of Onwurah & Ogu, 2019, who's finding indicated that child bearing mothers utilize safe motherhood services to a high extent.

The result in table 7 indicates that child bearing mother attending Health care Facilities in Awka North L.G.A. of Anambra state uses safe motherhood services to a low extent irrespective of their level of education. This finding is not expected and therefore was surprising because it believed that education is crucial to adoption to adoption of safe motherhood services among women of child bearing age. This finding contradicts Agu (2015) who's findings shows that mothers with tertiary education used safe motherhood services to moderate extent while mothers with primary and secondary education utilizes safe motherhood services to a low extent. This result is also in line with the finding of Dahiru (2022) who stated that irrespective of the educational level of mothers in Kano state, mothers still utilizes safe motherhood services to a low extent.

The result in table 8 shows that the mean rating of extent of utilization of safe motherhood services ranging from 52.39-52.48 by child bearing mothers at different location who attended health care facilities in Awka North L.G.A. of Anambra state. Indicates that they utilize safe motherhood services to a low extent. this finding is not expected and therefore surprising. Umoh (2020) opined that low level of utilization of safe motherhood services among rural dwellers may be attributed to a few health facilities and health practitioners in rural areas. This finding therefore not in line with flinging of Agu (2015) who reported that child bearing mothers in urban areas utilizes safe motherhood services to a moderate extent while mothers in rural areas utilizes safe motherhood services to a lower extent.

On the test of hypotheses 4 and from the result shown in table 12, the statement of hypotheses 4 was accepted. This implies that there was no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. based on their age. The statement of hypotheses 5 was therefore rejected meaning that there was a significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. based on their level of education. This is to say that level of education affects one's utilization of safe motherhood services. On the test of hypotheses 6 in table 15, the statement Was not rejected this is to say that there is no significant difference in the extent of utilization of safe motherhood services among childbearing mothers attending health care facilities in Awka North L.G.A. based on their location.

V. CONCLUSION

The findings of the study showed that the women of child bearing age attending health care facilities in Awka North LGA of Anambra state are fairly knowledgeable about safe motherhood services, and their extent of utilization of safe motherhood services is low. The established that government need to provide adequate Health care facilities with well trained personnel that will manage this facilities for access by child bearing mothers.

VI. RECOMMENDATIONS

- ✓ Seminars and workshops should be conducted in order to sensitize child bearing mothers on safe motherhood services.
- ✓ Government should make most of the services available and easily affordable for mothers both in the urban and remote areas.
- ✓ There is a need for further research to be conducted on safe motherhood services; this will help in identifying the target needs of mothers.

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