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Research Article

Maternal Health Service - Experiences of Mothers in Urban and Rural Areas of Enugu State, South East Nigeria

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Abstract:

Introduction: Every day in 2023, over 700 women died from preventable causes related to pregnancy and childbirth. 99% of these deaths are preventable. Reducing these deaths will require an understanding of past experiences of mothers utilizing maternal health services.

Objective: To determine and compare experiences of mothers in urban and rural areas of Enugu State, South East, Nigeria, regarding maternal health services.

Methodology: This study was a cross sectional, community-based comparative study that assessed and compared the maternal health service experiences of mothers in urban and rural areas of Enugu State, South East, Nigeria. The data was analysed using Chi-square test of significance, Student t-test, Bi-variant, and logistic regression, at 95% confidence interval, and P-value was set at 0.05.

Results: Most of the mothers in urban (85%) and rural (72%) were more than 25 years of age. Mothers in both locations had satisfactory overall maternal health service experience (59.2% to 93.4%), but more mothers in urban areas had satisfactory overall service experience than mothers in rural areas.

Conclusion And Recommendations: Maternal experiences were satisfactory in urban and rural areas, but more respondents in urban areas had satisfactory experience than those in the rural areas. Therefore, there should be an improvement of the health system. This will enable provision of user-friendly maternal health services especially in the rural areas, which will improve the quality and delivery of maternal care and ensure sustainable evidence based maternal health service delivery.

Keywords: maternal health service; experiences; quality of health care; satisfactory; enugu state

Introduction

Maternal health service aims to reduce maternal morbidity and mortality to the barest minimum.[1] From a broader perspective, maternal health service (MHS) encompasses premarital/pre-conceptual/adolescent care (PMC), antenatal care (ANC), natal care (NC), and postnatal care (PNC).1 Globally, every day in 2023, over 700 women died from preventable causes related to pregnancy and childbirth.2 99% of these deaths are preventable.[2]For every 1,000 live births in Nigeria during the 7 years before the 2018 Nigeria Demographic Health Survey, approximately five women died during pregnancy, during childbirth, or within 2 months after childbirth.[3] Experience of care with respect to a mother can be viewed from different perspectives.[4,5,6] Her contact and interaction with the staff providing care is referred to as relational aspect of experience,4 while her association with the processes that enable care is referred to as functional aspect of experience.[4]

However, a mother's maternal experience regarding maternal health service is associated with the determinants of process of care such as the general cleanliness,4 and her contact with a competent staff and the interpersonal relationship between her and the staff for the purpose of determining the diagnosis and preferences of treatment.[5,6] Other determinants of process of care include, the support she receives before pregnancy, during pregnancy, during labour and after delivery,[7] and the respect she receives during her contact with the facility.[8] What the mothers are required to experience regarding maternal health service are also as contained in World Health Organisation (WHO) Safe motherhood Scheme (SMS) needs guideline,[9] National Primary Health Care Agency recommendations,10 and the WHO Recommendation on Antenatal care for positive pregnancy experience.[11]

Methodology:

The study area Enugu State is in South East geo-political zone of Nigeria. The State is located between latitude 6o 30' N and longitude 7o 30' E within an area of 7,161 square kilometres. Approximately 70% of the inhabitants live in the rural areas of the state. The estimated population of Enugu State based on the 2006 Nigeria's census, and a growth rate of 2.33% is 4,411,100.3 Females constitute 50.1% of the population of Enugu State, while women of reproductive age (15 to 49 years) constitute 26% of her population.

Study Design: The study was a community-based comparative, cross sectional study.

Study Population: The study population was mothers in the study area who have parity one or more.

Sample Size Determination: The sample size was determined using the formula for group comparative study.12 The total number of participants was 1,681 (841 from urban areas, and 840 from rural areas).

Sampling technique: Multistage sampling technique was used to select the participants. All the four urban Local Government Areas of the State were selected in the first stage, and four Local Government Areas were selected from the thirteen rural Local Government Areas using simple random sampling technique by balloting method. In the second stage, two wards were selected from each of the four urban Local Government Areas using simple random sampling technique by balloting method. Also, two wards were selected from each of the four selected rural Local Government Areas using simple random sampling technique of balloting method. In the third stage, two communities were selected from each of the selected wards in the urban and rural areas. In the fourth stage, one village/settlement was selected from each selected community was by simple random sampling technique by balloting method. All houses in the selected villages/settlements were included in this study. All households in these houses were included in this study. Mothers that met the study inclusion criteria living in these households were eligible for this study. The consenting mothers that met the inclusion criteria were selected until the sample sizes for the urban and rural areas were met.

Study Instruments: This was a pretested, semi-structured, and interviewer administered questionnaire adapted from sections of Nigeria's National Primary Health Care Development Agency (NPHCDA) Primary Health Care Facility Quality Assessment- Schedule D; WHO Safe Motherhood Needs Assessment Package version 1.1- 2001 (revised edition),13 and Part IV- Surveyor's Manual using the antenatal client exit interview and postpartum client exit interview guides.

Outcome Measures: The scoring system was adjusted to reflect mothers' responses. A score of one was recorded when the response is correct and a score of zero was recorded when the response is incorrect. For the mothers' maternal health experiences, depending on the service, a score of thirty nine and below (≤39) was considered not satisfactory or inadequate, a score of forty to fifty nine (40-59) was considered fairly satisfactory or moderately adequate, and a score of sixty and above (≥60) was considered satisfactory or adequate.

Statistical Analysis: Data was collected and edited manually same day to detect omissions and to maintain uniform coding. SPSS (Statistical Package for Social Sciences) version 25 was used for data entry and analysis. Analysis was done using generated tables, ratios, frequency, percentage calculations and cross tabulations. Chi-square test of significance, student t-test, Bi-variant, multivariant analysis using logistic regression were used in the analysis of data at 95% confidence interval. P-value was set at 0.05. The mean scores of the mothers in the urban areas and those mothers in the rural areas regarding their maternal health service expectations were compared using the student t test. The proportion of mothers in urban areas and those in rural areas whose mean scores corresponds to inadequate/not satisfactory, moderately adequate/fairly satisfactory, and adequate/satisfactory experiences was compared using the chi square test. Logistic regression models were fitted for the urban and rural areas combined, and separately for the urban and rural study areas. Results were reported using Odds ratio, at 95% Confidence Interval and the level of significance was set at <0.05.

Ethical Considerations:

Ethical approval and informed consent process for the study was granted by Enugu State University Teaching Hospital ethical committee. The research was conducted in accordance with the relevant guidelines and regulations as contained in the ethical and informed process obtained from Enugu State University Teaching Hospital ethical committee. All information from this study was confidential and no individual who participated in this study was linked to any information. The respondents were given the opportunity to withdraw from the study at any time during the study without any consequences to them.

Limitations: This study was a cross-sectional study and did not draw conclusions about causality.

Results

This study involved a total of 1,681 mothers, 841 of the mothers were in urban areas, while 840 of the mothers were in rural areas.

Variables	Location		Total	Chi-square (p-value)
	Urban n= 841 (%)	Rural n=840 (%)		
Age of clients Mean ±SD	30.7 ±5.8	30.7 ±7.8		0.183*(0.855)
Age group in years	15(1.8)	75(8.9)		72.684(0.000)
16-20	111(13.2)	160(8.9)		
21-25	364(43.3)	244(29.0)	90(5.4)	
26-30	351(41.7)	361(43.0)	271(16.1)	
31 and above			608(36.2)	
Tribe	827(98.3)	838(99.8)	712(42.4)	0.015
Ibo	4(0.5)	1(0.1)		
Yoruba	6(0.5)	1(0.1)	1665(99.0)	
Hausa	4(0.5)	0(0)	5(0.3)	
Others			7(0.4)	
Religion	832(98.9)	826(98.3)	4(0.2)	0.001f
Christianity	7(0.8)	0(0)		
Islam	2(0.2)	14(1.7)	1658(98.6)	
African Traditional Religion	-	-	7(0.4)	
Others			16(1.0)	
Level of education (Respondents)	6(0.7)	64(7.6)	-	322.608(0.001)
	68(8.1)	247(29.4)		
None	463(55.1)	474(56.4)	70(4.2)	
Primary	304(36.1)	55(6.5)	315(18.7)	
Secondary			937(55.7)	
Post Secondary			359(21.4)	

Table 1a: Socio-demographic characteristics of respondents

***Student t test**

Majority (85%) of the respondents in urban areas, and rural areas (72%) were more than 25 years of age). The highest proportion of the respondents in the urban areas were in the age group 26-30 years (43.3%), while the highest proportion of respondents in the rural areas were in the 31 years and above age group (43%). The proportion of the mothers in the urban areas who had post-secondary school education was 36.1%, while the proportion in the rural areas was 6.5%. The proportion of mothers who did not study further after primary school in the urban areas was 8.1% as against 29.4% of those in the rural areas. However, majority of the mothers (55.7%) in the two areas (55.1% of those in urban areas and 56.4% of those in rural areas) stopped their education after completing secondary school education.

Variables	Location		Total	Chi-square (p-value)
	Urban n= 841 (%)	Rural n=840 (%)		
Number of pregnancy Mean ±SD	2.9 ±1.6	3.7 ±2.1	315(18.7)	-8.898*(0.000)
One	188(22.4)	127(15.1)	1148(68.3)	71.709(0.000)
Two –five	600(71.3)	548(65.2)	218(13.0)	
Six and above	53(6.3)	165(19.6)		
Number of living children Mean ±SD	2.7 ±1.5	3.3 ±1.9	19(1.1)	-7.919*(0.000)
No Living child	9(1.1)	10(1.2)	362(21.5)	50.828(0.000)
One child	213(25.3)	149(17.7)	1149(68.4)	
Two –five children	582(69.2)	567(67.5)	151(9.0)	
Six and above	37(4.4)	114(13.6)		

Table 1b: Socio-demographic characteristics of respondents continues

***Student t test**

Urban mothers average number of pregnancies was 2.9 pregnancies, while those in the rural area had 3.7 pregnancies. Mothers in the rural areas (13.6%) had more than five children when compared with those in the urban areas (4.4%). The mothers in urban areas had an average of 2.7 children, while their counterparts in the rural areas had 3.3 children.

Variables	Location		Total	Chi-square (p-value)
	Urban n= 841 (%)	Rural n=840 (%)		
Facility used for maternal health service				
Health Post	38(4.5)	20(2.4)	58(3.5)	
Health Centre	188(22.4)	457(54.4)	645(38.4)	
Comprehensive hospital	3(0.4)	6(0.7)	9(0.5)	
District/Specialist hospital	13(1.5)	16(1.9)	29(1.7)	
Tertiary/Teaching hospital	37(4.4)	19(2.3)	56(3.3)	
Private Facility	450(53.5)	159(18.9)	609(36.2)	
Traditional Birth Attendant	98(11.7)	147(17.5)	245(14.6)	
Church	2(0.2)	0(0)	2(0.1)	
Spiritual home	3(0.4)	1(0.1)	4(0.2)	
Home	5(0.6)	6(0.7)	11(0.7)	
Means of transportation				
Walk	286(34.0)	494(58.8)	780(46.4)	0.000f
Taxi/bus	390(46.4)	176(21.0)	566(33.7)	
Motorcycle/Tricycle	116(13.8)	125(14.9)	241(14.3)	
Personal vehicle	47(5.6)	39(4.6)	86(5.1)	
Others	2(0.2)	6(0.7)	8(0.5)	

Table 2: Respondents access to facility for maternal health service

Mothers (54.4%) in the rural areas used health centre as their facility for maternal health care, when compared with their urban counterparts (22.4%). 53.5% of the women in the urban area sought their maternal health care services at private health facilities while the proportion in the rural area was 18.9%. Mothers in both locations also patronize patronized traditional birth attendants - 11.7% in urban areas and 17.5% in rural areas. The result also showed that there were more women in the rural area (58.8%) who trekked/walked to the health facility when compared with those in the urban area (34%). Majority of the mothers in urban areas (46.4%) went to the health facility by taxi/bus when compared with the rural respondents (21%).

Variables	Location		Total	Chi-square (p-value)
	Urban n= 841(%)	Rural n=840 (%)		
First ANC Health talk				
Not Satisfactory	29(3.4)	68(8.1)	97(5.8)	61.228(0.000)
Fairly Satisfactory	23(2.7)	88(10.5)	111(6.6)	
Satisfactory	789(93.8)	684(81.4)	1473(87.6)	
First ANC consultation with staff				
Not Satisfactory	24(2.9)	159(18.9)	183(10.9)	504(0.000)
Fairly Satisfactory	192(22.8)	511(60.8)	703(41.8)	
Satisfactory	625(74.3)	170(20.2)	795(47.3)	
Investigations done on first ANC visit				
Inadequate				
Moderately adequate	**587(69.8)**	676(80.5)	1263(75.1)	25.649(0.000)
Adequate	-	-	-	
Treatment/drugs received at first ANC	254(30.2)	164(19.5)	418(24.9)	
Inadequate				
moderately adequate				
Adequate	208(24.7)	46(5.5)	254(15.1)	129.025(0.000)
Subsequent antenatal visits	123(14.6)	111(13.2)	234(13.9)	
Not Satisfactory	510(60.6)	683(81.3)	1193(71.0)	
Fairly Satisfactory				
Satisfactory	5(3.0)	190(22.6)	215(12.8)	145.440(0.000)
	176(20.9)	142(16.9)	318(18.9)	
	640(76.1)	508(60.5)	1148(68.3)	

Table 3: Maternal experiences of the respondents during antenatal care (ANC) visits

Majority of the mothers in both locations (urban-93.8%, rural-81.4%) had satisfactory experience regarding health talk received during first ANC visit. As regards consultation with staff at first ANC visit, 74.3% of women in urban and 20.2% of those in the rural areas had satisfactory experience.

However, 60.8% of women in the rural areas had fairly satisfactory experience during their consultation with staff, as against 22.8% of women in the urban areas. Only 30.2% and 19.5% of women in urban and rural areas respectively performed adequate investigations. A higher proportion of women in the rural areas (81.3%) received adequate treatment/drugs at their first ANC visit when compared with women in the urban areas (60.6%). Also, more mothers in urban areas had inadequate treatment/drugs experience during their first ANC visit than their rural counterparts (urban-24.7%, rural-5.5%). Majority of the respondents (urban-76.1%, rural-60.5%)

had satisfactory experience during subsequent ANC visits, but the experience of 22.6% of those in the rural areas was not satisfactory. Also, 20.9% of women in urban areas, and 16.9% of those in the rural areas had fairly satisfactory experience during their subsequent ANC visits.

Variables	Location		Total	Chi-square (p-value)
	Urban n= 841(%)	Rural n=840 (%)		
Examinations performed by staff				
Not Satisfactory	161(19.1)	393(46.8)	554(33.0)	226.011(0.000)
Fairly Satisfactory	68(8.1)	142(16.9)	210(12.5)	
Satisfactory	612(72.8)	305(36.3)	917(54.6)	
Investigations done				
Inadequate	795(94.5)	735(87.5)	1530(91.0)	31.604(0.000)
moderately adequate	30(3.6)	89(10.6)	119(7.1)	
Adequate	16(1.9)	16(1.9)	32(1.9)	
Treatments received				
Inadequate	579(68.8)	592(70.5)	1171(69.7)	0.830(0.660)
moderately adequate	235(27.9)	226(26.9)	461(27.4)	
Adequate	27(3.2)	22(2.6)	49(2.9)	
Support received				
Not Satisfactory	32(3.8)	52(6.2)	84(5.0)	96.524(0.000)
Fairly Satisfactory	94(11.2)	246(29.3)	246(29.3)	
Satisfactory	715(85.0)	542(64.5)	542(64.5)	

Table 4: Experiences of respondents during labour

The experiences of majority of the mothers in urban areas (72.8%) regarding examinations performed by staff during labour were satisfactory when compared with women in the rural areas (36.3%). Examinations performed on 46.8% of mothers in the rural areas, and 19.1% of their counterparts in the urban areas were not satisfactory. Also, examinations performed on 8.1% of women in urban areas, and 16.9% of those in the rural areas were fairly satisfactory. These results were statistically significant. Investigations done on majority of women in urban (94.5%) and rural (87.5%) areas during labour were inadequate, and this result was statistically significant. Treatments received by majority of the respondents (urban-68.8%, rural-70.5%) during labour were inadequate and almost same, but the result was not statistically significant. Also, relatively similar proportion of the respondents in the two locations (urban-27.9%, rural-26.9%) received moderately adequate treatment, but the result was not statistically significant. Eighty five percent (85%) of women in the urban areas, and 64.5% of their counterparts in the rural areas received satisfactory support during labour. Only 3.8% of women in the urban areas, and 6.2% of women in the rural areas received support that is not satisfactory, while 11.2% of the respondents in urban areas, and 29.3% of their rural counterparts received fairly satisfactory support.

Variables	Location		Total	Chi-square (p-value)
	Urban n=841 (%)	Rural n=840 (%)		
Health talk				
Not Satisfactory	44(5.2)	178(21.2)	222(13.2)	126.341(0.000)
Fairly Satisfactory	213(25.3)	95(11.3)	308(18.3)	
Satisfactory	584(69.4)	567(67.5)	1151(68.5)	
Procedures performed				
Not Satisfactory	343(40.8)	523(62.3)	866(51.5)	110.280(0.000)
Fairly Satisfactory	384(45.7)	183(21.8)	567(33.7)	
Satisfactory	114(13.6)	134(16.0)	248(14.8)	
Investigations done				
Inadequate	795(94.5)	614(73.1)	1402(83.4)	212.317(0.000)
moderately adequate	16(1.9)	225(26.8)	238(14.2)	
Adequate	47(5.6)	11(1.3)	41(2.4)	
Treatment received				
Inadequate	414(49.2)	563(67.0)	977(58.1)	54.705(0.000)
moderately adequate	334(39.7)	218(26.0)	552(32.8)	
Adequate	93(11.1)	59(7.0)	152(9.0)	

Table 5: Maternal experiences during post-natal care service

Majority of the mothers in both locations (urban-69.4%, rural-67.5%) received satisfactory health talk during their post natal visits. However, the health talks received by 21.2% of mothers in the rural areas and 5.2% of women in urban areas were not satisfactory. A higher proportion of women in urban areas (25.3%) received fairly satisfactory health talk, as against 11.2% of those in the rural areas. These results were statistically significant. Procedures performed on the women were satisfactory in 13.6%, and 16.0% of those in urban and rural areas respectively. Majority of the women in

urban areas (45.7%) had fairly satisfactory procedures performed on them during post natal visits (rural-21.8%). Procedures performed on 62.3% of women in the rural areas, and 40.8% of their counterparts in the urban areas were not satisfactory. As regards investigations done during post natal visits, 94.5% of women in the urban areas, and 73.1% of women in the rural areas received inadequate investigations. Investigations done were moderately adequate for 1.9% of the respondents in the urban areas, and 26.8% of the respondents in the rural areas. Small proportion of the women (urban-5.6%, rural-1.3%) was adequately investigated. Majority of the women in both locations (58.1%) received inadequate treatment during post natal care visits (urban-49.2%, rural-67.0%). More women in the urban areas (39.7%) received moderately adequate treatment than those in the rural areas (26.0%). The treatment received by 11.1% of women in the urban areas, and 7.0% of women in the rural areas was adequate. These results were statistically significant.

Discussions

The mean age of the respondents in both locations was 30.7 years. Similarity in the mean age of the two groups could be attributed to the fact that the mothers in both locations may have started childbearing at the same age. This mean age of the respondents was similar to the mean age (30.4 years) of women that participated in a study to determine the determinants of antenatal and delivery care utilization in Tigray region, Ethiopia.[14] Women clients that were assessed to determine their perception of antenatal care services at primary Health centres in an urban area of Lagos, Nigeria also had similar mean age (30.68).[15] However, the mean age was higher than the mean ages of women (urban=27.9±5.5 years, rural=26.2± 5.7 years) in a similar study done in 2014 in Enugu State, Nigeria.[16]

More mothers in the rural areas (13.6%) had more than five children when compared with those in the urban areas (4.4%). This could be attributed to the fact that in Nigeria only nine percent of women in rural areas use contraceptive methods when compared with twenty seven percent of mothers in the urban areas that use contraceptive methods.[17] This study showed a significant difference in the educational attainment of the respondents in the two locations. More mothers in the urban areas (36.1%) had post-secondary school education when compared to their counterparts in the rural areas (6.5%), however it should be noted that the literacy level in Nigeria is higher in the urban than in the rural areas as observed by the NDHS 2013.[17]

As regards the overall general services given at the facilities, more mothers in urban areas had satisfactory experience than women in the rural areas. However, more mothers in the rural areas had fairly satisfactory experience in all aspects of overall general services when compared with their counterparts in the urban areas. A higher proportion of mothers in urban areas (85.7%) had satisfactory experience with the general condition of the facility when compared with women in the rural areas (30.6%). In Nigeria, urban health centres are cleaner than rural health centres. Similarly, significant proportion of similar respondents in urban and rural areas of Belgium,18 and Australia,19,20 found the environment and clinics clean and tidy. In contrast, mothers in Vietnam,21 India,22 Saudi Arabia,23 Malawi,24 Ghana,25 and Nigeria, 26 observed that the facilities were dirty or untidy. In Nnewi, South East, Nigeria, most women perceived that the health facilities had a good appearance, and were in fair condition.27 However, an evaluation of PHC in Nigeria observed that the PHC facilities were dilapidated with little or no evidence of maintenance or repair.28

Majority of the mothers in urban (97.7%), and rural (86.5%) areas had satisfactory experience with the overall treatment they received. This is similar to the overall findings in a similar study in Enugu,16 regarding the different treatments received. This could be attributed to the availability of the drugs in the health facilities in Enugu State, and Enugu State campaign on malaria prevention for pregnant women. More women in urban (92.5%), and rural (81.8%) areas had satisfactory experience with the attitude of the staff. Similarly, a high proportion of women in the urban (98.3%) and rural (88.5%) areas had satisfactory experience as regards the decision support they received from the staff. These satisfactory experiences could also be as a result of the recent efforts by Enugu State government to equip health facilities, and increase the number, training and supervision of health care workers, especially in the rural areas. Most women (urban-93.8%, rural-81.4%) had satisfactory experience regarding health talk received during first ANC visit. Similarly, very high proportions of women in urban (91.8%), and rural (94.1%) areas that participated in a facility based study in Enugu State, Nigeria16 perceived the health talks given during antenatal care as satisfactory. However, 84.3% of similar respondents in urban area of Lagos State, Nigeria perceived the health talks given to them to be satisfactory.[15]

Majority of the mothers in urban areas (74.3%), and only 20.2% of women in rural areas had satisfactory experience as regards consultation with staff at first ANC visit. This variation in the proportions could be as a result of presence of more staff in the urban areas,17 and more consultation time with staff in the urban areas.16 But, 60.8% of the mothers in the rural areas had fairly satisfactory experience during their consultation with staff, as against 22.8% of women in the urban areas. Only 30.2% and 19.5% of the women in urban and rural areas respectively performed adequate investigations during first ANC. This could be as a result of the fact that this study is a community based study which takes cognisance of women who were not satisfied with care given at health facilities, and the observation was for the first ANC visit. This shows that mothers in the two locations were not properly investigated during their first ANC visit. However, this is in contrast to the higher proportion of respondents that were investigated as reported by a facility based study done in both locations in Enugu State with similar respondents.16 The finding in the facility based study may have resulted from the fact that most women obtaining maternal health service from health facilities are satisfied with services they received.29,30 However, NDHS 2013 observed that high proportions of women in urban and rural areas had satisfactory investigations.17 NDHS 201317 observed that 83.8% of women in urban areas and 66.4% of rural respondents did urine tests, 90.1% of women in urban areas and 73.9% of women in rural areas had their blood taken, while 89.3% of women in urban areas and 74.2% of women in rural areas had their urine taken. However, the NDHS 2013 findings were for overall ANC visits.

A higher proportion of mothers in the rural areas (81.3%) had adequate treatment/drugs experience at their first ANC visit when compared with mothers in the urban areas (60.6%). However, NDHS 2013 observed a higher proportion of women in urban areas regarding adequacy of treatment/drugs received by women in both locations.17 This contrast could be because Enugu State is giving more attention to the health facilities in the rural areas, and probably because most of the respondents in the urban areas in this study patronized private facilities where user fee is high. Majority of the respondents (urban-76.1%, rural-60.5%) had satisfactory experience during subsequent ANC visits, but the experience of 22.6% of those in the rural areas, and 3% of those in the urban areas was not satisfactory. More respondents in urban areas (20.9%) also had fairly satisfactory experience during their subsequent ANC visits when compared with those in the rural areas (16.9%).

Majority of the mothers in urban areas (72.8%) had satisfactory examination experience during labour when compared with women in the rural areas (36.3%). Also, 46.8% of women in the rural areas, and 19.1% of their counterparts in the urban areas were not satisfactory. This difference in proportions in the two locations could be due to the fact that there are more facilities and also more staff in the urban areas than in the rural areas. Also, more deliveries are attended to by a skilled birth attendant in the urban areas than in the rural areas.[17] Majority of the women (urban-94.5%, rural-

87.5%) received inadequate investigations during labour. The high proportions of women that had inadequate investigation experience could be attributed to the fact that women in labour in Nigeria are not routinely investigated. Most of the women in urban (85%), and rural (64.5%) areas received satisfactory support during labour. This is similar to the findings from a study done with similar respondents in Sweden, were 81% of the women experienced satisfactory care and support during labour.[31] In contrast, a study that assessed the factors of mother's dissatisfaction with labour and delivery care procedure in educational and non-educational hospitals in Tabriz, Iran observed that most of the women were not satisfied with the support they received during labour.[32] Also 11.2% of the respondents in urban areas, and 29.3% of their rural counterparts received fairly satisfactory support. While only 3.8% of women in the urban areas, and 6.2% of women in the rural areas received support that is not satisfactory.

More mothers in urban areas (25.3%) received fairly satisfactory health talk during post natal care, as against 11.2% of those in the rural areas, while the health talks given to 21.2% of women in the rural and 5.2% of women in urban areas during post natal care were not satisfactory. But most of the mothers in both locations (urban-69.4%, rural-67.5%) received satisfactory health talk during their post natal visits. This could be due to the fact that health education is now an important aspect of maternal health care services. Similarly, majority of women that participated in a study in Enugu State, Nigeria were given satisfactory information on breast feeding, immunisation, family planning and on care of the baby during the postnatal care period.64 Procedures performed on 13.6% of women in urban areas and 16% of women in the rural areas during post natal care were satisfactory. But, more women in urban areas (45.7%) had fairly satisfactory procedures performed on them during post natal visits (rural-21.8%), while the procedures performed during post natal visits on 62.3% of women in the rural areas, and 40.8% of those in the urban areas were not satisfactory. However, in Nigeria, mothers are not usually tested during post natal visits.[17]

Most of the respondents had inadequate investigation experience during their post natal visits. The proportion of mothers in the urban areas (94.5%) that had inadequate investigation is higher than that of those in the rural areas (73.1%). More mothers in the rural areas (67%) had inadequate treatment experience during post natal care visits than those in the urban areas (49.2%). However, more women in the urban areas (39.7%) received moderately adequate treatment than those in the rural areas (26.0%). Also, the treatment received by 11.1% of women in the urban areas, and 7.0% of women in the rural areas during post natal care was adequate. Similarly, in rural Gambia, maternal experiences during post natal period was low regarding examination but high regarding other aspects of post natal care.[33]

Most of the participants in the FGDs in both locations expected the environment to be clean. This is because it is a positive expectation. This is as obtained in a study done in Australia in 2013,[34] "Women's expectations and experiences of maternal care in NSW- what women highlight as most important" Almost all the mothers reported satisfactory experience as regards the general condition of the facilities. FGDs observed that the women expectation from the staff is low in the rural areas as most of the women expected only courteous reception. Majority of the mothers in rural areas expected that they will not see any nurse to support them because the nurses are usually few or not available. Most mothers in urban areas had better expectation than their rural counterparts. This was as observed in the quantity analysis of maternal expectation in this study, and among ethnic minority groups in United Kingdom.[35] care.

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