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Article

Influence Of Socio-Economic Factors On Choice Of Childbirth Place Among Women In Oyigbo, Rivers State, Nigeria

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A B S T R A C T

Choices of childbirth places among women may influence the rate of maternal mortality which is still a major challenge especially in developing countries like Nigeria. Some of these choices could be influenced by social and economic factors and the commonest being home birth which increases maternal risks. This study aimed to find out the prevalent socio-economic factors that influence the birthplace choices among the women in a suburban community in Rivers State, Nigeria. The study utilized a descriptive, cross-sectional design. Respondents were selected through simple random sampling. A self-structured questionnaire was used to collect data for the study. The data were analyzed using frequency and percentage for descriptive statistics and chi-square for inferential statistics with the SPSS software at 0.05 level of significance. The result showed that most of the women had secondary education (57.1%) and choose health facility for childbirth (91.4%).There was significant association between distance (x^2= 12.69, p= 0.005)and available finance (x^2= 10.26, p= 0.016), and educational qualifications (x^2= 18.75, p= 0.005)and the choices of childbirth places among the women, but there was no significant association between road access to health facility (x^2= 5.47, p= 0.140)and unavailability of skilled birth personnel (x^2= 6.23, p= 0.101) and income (x^2= 8.38, p= 0.212) and choices of childbirth places among the women. This study has shown that there is influence of some socio-economic factors on the choices women make on childbirth places..

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I. INTRODUCTION

Maternal mortality is a major challenge in developing countries like Nigeria. This could be as a result of various factors which include but are not limited to social, economic and cultural factors, which have a direct influence on maternal mortality [1]. Women die during childbirth due to complications such as unsafe abortions, infections after childbirth, pre-eclampsia or eclampsia, complications during labour and after delivery [2]. Maternal mortality refers to any loss of a woman's life resulting from pregnancy complication or death within 42 days after childbirth, notwithstanding the period or site of the pregnancy, emanating from issues that are linked or escalated by the management of the pregnancy but not from accident or incidental factors [1]. The major causes of maternal as infectious diseases, such as malaria and viral hepatitis, and non-infectious conditions like anaemia, haemorrhage, hypertensive disorders of pregnancy, sepsis and obstructed labour [3]. Healthcare workers need to provide a more supportive environment by being sensitive and accommodating to diverse social perspectives and employing tact in educating women or managing their needs [3]. Maternal mortality has become a serious problem in middle income countries with Sub-Saharan African amounting for about 66% of the maternal deaths [2].

Some women may not die during childbirth but they may live with lifelong morbidity. Maternal morbidity refers to the disease/illness experienced by pregnant women. Many times, this often results in an inability to function properly and in many situations affects the victim's economic, social and fertility roles [1]. Maternal morbidity could become chronic in a mother during and after pregnancy. Chronic morbidities are not life-threatening but could affect the women's functionality such as uterine prolapase, fistula and other minor conditions like hernia, post partum depression, urinary incontinence, haemorrhoids etc [4]. The medical causes of maternal mortality are also important for morbidity diagnosis and to the list of the factors are added anaemia and depression [5].

Appropriate maternal health services are essential for the overall wellbeing of women at the stage of pregnancy and children below age [5]. Maternal healthcare is a comprehensive care to mother and child as it includes educational, social, nutritional services as well as medical care during pregnancy, labour and post pregnancy. As had been observed by previous studies, some reasons have been attributed to why many pregnant and nursing mothers chose not to make use of appropriate antenatal and postnatal cares are due to poverty, distance to the health facility, low educational status, lack of awareness of services available to them, cultural beliefs and religious practices [6]. It is important that all childbirths are attended to by skilled health professional to ensure early care and treatment thereby reducing the death of mother and baby [2]. Also discriminatory attitude based on religious factor affects the maternal health care of women from different backgrounds [7]. To improve maternal health, issues of inequalities that affect the outcome of maternal health especially on rights, gender, reproductive health care (like family planning) and access to respectful and high quality maternity care [8].

Utilisation of maternal health services could be influenced by social and economic factors. Various social groups in Sub-Saharan Africa practice different lifestyles, which may differ in some aspects but are almost similar in contexts [9]. Studies have shown that maternal procedures in Sub-Saharan Africa are prone to crisis as a result of multiple social and economic factors. These social factors affect the child practices among women of child bearing age in most countries in these parts of Africa [10]. Social factors are experiences which influence the way an individual thinks, lifestyle and attitude. The common social factors which have affected childbirth include: educational background, accessibility to good medical care and child birth facilities, environmental and climate of the individuals' residence, societal/personal lifestyle adopted by individuals etc.

Nigeria consists of numerous social groups and each of these groups has their own common interests guided by lots of factors. The social factors that commonly influence childbirth practices in Nigeria are associated with increased maternal or pre-natal morbidity [9]. One of the commonest childbirth practices that can be associated with social factors among Nigerian women is the practice of home births. In Madagali which is located in North-Eastern Nigeria, a significant number of home births take place and are supervised by unskilled individuals. These home births account for high mortality rate in the Northern part of the country [11].

In addition to home births, women in this part of the country face poor education and low socio-economic status in their societies. Because of this, lack of proper education has led these women to believe that home birth is safer for them. Also, these women participate mainly in house chores, farming and petty trades. Hence, they do not have the financial capabilities to pay for hospital births under the supervision of skilled personnel [6]. This has led many of them to settle for home births.

The marital status of the women of childbearing age in Sub-Saharan Africa is another significant social factor that influences their child birth practices and the delivery places they may choose. For instance, single or divorced women may be able to make decisions by themselves, without any man (husband) influencing their decisions on their choice of birth methods, as compared to married women [12].

Another social factor which influences child birth in Sub-Saharan countries like Nigeria, Niger and Benin Republic is that women are exposed to childbirth within short intervals, due to their societal demands to satisfy the quests of the men to have large family size [13]. Many women now conceive and give birth to numerous children within short intervals. This has lead to an increase in infant morbidity and mortality in these regions [9]. In Lagos State, Nigeria, the childbearing women of Ogu speaking people of Badagry often give birth to children within short intervals [14]. This implies that men play a huge role to the conditions of the pregnant women in the community. This is perceived as a means of satisfying their husbands' quest for large family size, which may not be unconnected with the effect of decision making in the family.

The study by Ezeama and Ezeamah suggested that malnutrition is another social factor influencing the childbirth practices among the women; the findings from this study showed that some pregnant women are malnourished by their diets because they eat only what are obtainable in their community [12]. This can also be associated with lack of education regarding antenatal and maternal care. If these women are exposed to enlightenment from skilled professionals, they would be able to take food that would improve their conditions during pregnancy and child delivery.

In the Southern part of the country, the lifestyles of the individuals also influence childbirth practices. For instance, the residents of riverine areas of Bayelsa and some parts of Rivers state, practice home births because they have adopted it as their lifestyle. It is easier to deliver at home than cross the river on a boat during labor to a nearby hospital in such environments[15].

One of the major causes of maternal mortality among women of child bearing age is the lack of adequate access to skilled personnel [16]. In Sub-Saharan African, many women do not have access to skilled personnel during childbirth [17]. Globally, existing literature points to various social and economic factors that have been attributed to low access to health facilities and skilled personnel [18] by expectant women. In Ethiopia, although there has been tremendous improvement in terms of providing adequate maternal healthcare, maternal mortality is recorded to be among the highest in the world with 412 deaths per 100,000 live births [19]. The study by

Bukar and Jauro, has also shown that in low-income countries, the major cause of maternal mortality is unskilled birth attendance [11]. It is necessary to improve skilled care at birth in order to reduce maternal death. Records have shown that a 10% increase in skilled birth attendance corresponds to 5% reduction in maternal deaths [20]. Studies have shown that maternal procedures in Sub-Saharan Africa are prone to crisis as a result of multiple social and economic factors. These social factors such as occupation and education affect the child practices among women of child bearing age in most countries in these parts of Africa [10].

The effects of education are assumed to predominantly flow through women's cognitive skills, material resources, and autonomy, which should in turn affect their maternal practices and healthcare use, and ultimately their health outcomes [21]. Education should have a positive effect on women's cognitive skills especially literacy, should benefit maternal health by increasing women's ability to seek information about their own health and by assuring that women are better able to follow written instructions. Education reduces the effect of patriarchal system; men have traditionally been the economic providers for their families and the ones to determine how household resources are spent, However, if education increases women's employment or earnings, then women's greater ability to provide for their families may grant them more decision-making power within the home, including decisions about delivering in hospitals and other formal healthcare centers as opposed to in one's home, should improve postnatal health by reducing the risk of postpartum infection, and providing skilled birth attendants who are equipped to address complications during delivery [21].Education enhances health-seeking behaviors, and this may lead to the prevention and early detection of complications during pregnancy and childbirth and reduce the risk of death when complications arise but few studies have been able to determine whether women's education has a *causal* effect or whether the link between education and maternal health [21].

Financial capabilities could directly affect whether women can actually reach a facility for delivery as the anticipation of high costs will affect whether a decision for facility delivery is made in the first place. Women who are working and earning money may save and use it for facility delivery. However, in many settings, women either do not earn money for their work, do not control what they earn, or working may be poverty induced and indicate recourse constraints which in any case would make working mothers less likely to use health facilities for delivery [22]. For example, in two southern Indian States and in Nepal, working women may signify that working is poverty induced [23]. A study also found an interesting interaction that favor employed women gainfully among those living more than one hour travel time from a health centre, while employment status does not play a role among those within one hour travel time, and this could be due to employed women being better equipped to overcome access barrier including transportation costs or female mobility limitation [22].

There has been several works on social and economic factors that influence women's birthplace choices but little or no work has been done on this topic in Rivers State Nigeria. Therefore, this study is aimed to explore the significance of the influence of some socio-economic factors on choices of childbirth places among women in Oyigbo local government area of Rivers State, Nigeria and the significance of the influence of income and educational status on choices ofchildbirth places among women in Oyigbo local government area of Rivers State, Nigeria.

II. METHODS

Research Design: The study utilized a descriptive and a cross-sectional research design which involves collecting, analyzing and interpreting data collected through questionnaire.

Study Area: The study was carried out in Oyigbo Local Government Area of Rivers State, Nigeria. Oyigbo Local government is one of the 23 local governments of Rivers State of the South-South geopolitical zone of Nigeria. It's headquarter is in a town known as Afam. The local government is about 30 kilometers away from Port Harcourt, the capital city of Rivers State, with an estimated population of about 209,841 [24]. Oyigbo is made up of towns, villages and districts such as Umuosi, Okoloma, Azusogu, Ndoki and Okponta. It is known for its rich deposits of crude oil.

Study Population: The study population was women in Oyigbo Local Government Area, this included both women of childbearing age who are resident in the area of the study. They were 1000 women of childbearing age on the average.

Inclusion Criteria: Women between the age of 15-49, that came into the St. Paul's Catholic Church Health Post Oyigbo. Also women of child bearing age who were also resident in that locality.

Exclusion Criteria: All those who failed to give consent because they were dissatisfied or morbidly ill and all those who were judged by the researcher to be mentally unstable. Also, those only visiting the area.

Sample size determination and Sampling Technique

The sample size was determined using the Fischer's formula: $\mathbf{n = (Z^2 \times p \times q)/d^2}$ with **n** as the sample size Z is the normal variable associated with significance level α (1.96 is the normal deviate associated with 95% confidence interval); **p** is Proportion of the population with the desired characteristic; **q**= 1-p; **d** is the required level of precision/discrepancy =5%; [25]

$[1.96^2 \times 0.5 \times (1-0.5)]/0.05^2 = \mathbf{384}$

Sample size was viewed as sufficient once 384 responses have been collected.

The respondents were randomly selected from women of child bearing age, that met the inclusion criteria in Oyigbo Local Government area in Rivers State were selected. The sampling method employed was the simple random sampling by lottery choosing women of child bearing age who would come to St. Paul's Catholic Church Health Post Oyigbo in month of January 2020.

Instrument for data Collection: The instrument wa**s** a structured questionnaire in sub-scales of three sections namely; Socio-economic characteristics/Bio-data, Common childbirth places, and Social and economic factors influencing choice of childbirth places. For the unlearned women, the questionnaire was interpreted into local languages and they were helped recording their responses.

Method of Data Analysis: Data was analyzed using the Statistical Package for Social Sciences (SPSS) Version 22 (SPSS Inc., Chicago, IL., USA). Results of research question one to three above were presented as frequency tables and percentage, and the hypotheses used to test the association was carried out using Chi-square, with level of significance set as $p < 0.05$.

III. RESULT

Analysis of Socio-demographic Data

From the socio-demographic characteristics of age of the women of child-bearing age in Oyigbo, 65(16.9%) were aged 20-25yrs, 198 (51.6%)were 26-31yrs, 99(25.8%)were 32-37yrs while 22

(5.7%) were 45yrs and above. On the educational level, 22 (5.7%) had no formal education, 11 (2.9%) had primary education, 219(57.1%) had secondary education, 110(28.6%) had tertiary education while 22(5.7%) had post-graduate education. On the marital status of the respondents, 351(91.4%)were married, 22(5.7%)were single while 11(2.9%)were separated. On the income of the respondents, 263(68.5%) earned less than ₦30,000; 66(17.2%) earned ₦30,000-₦79,999; 22(5.7%) earned ₦80,000-₦149,999; another 22(5.7%) also earned ₦150,000-₦349,999 while 11(2.9%) earned ₦350,000 & above. On the occupation of the respondents, 230(59.9%)were businesswomen/traders; 77(20.1%)were private civil servants; 33(8.6%)were public civil servants while 44(11.4%)had others occupations not listed above

Common choices of childbirth places among the women in Oyigbo

The choice of childbirth place among the women of childbearing age in Oyigbo. The result revealed that 351(91.4%) choose health facility, 19(4.9%) choose traditional birth attendant homes, 9(2.3%) choose home delivery while 5(1.3%) choose others as their choice of childbirth place in Oyigbo Local Government Area of Rivers State.

Social factors influencing choice of childbirth place among the women in Oyigbo

Table 1: Social factors influencing the women's choice of childbirth places in Oyigbo L.G.A

Social Factors	Yes		No	
	Frequency	Percent %	Frequency	Percent %
Road access to health facility	165	42.97	219	57.03
Distance	99	25.78	285	74.22
Available finance	199	51.82	185	48.18
Unavailability of skilled birth personnel	144	37.5	240	62.5

YES: respondents affected by factor. NO: respondents not affected by factor.

Table 1 shows the social factors affecting the choices of childbirth place of the women in Oyigbo. The result revealed that 165(42.97%) of the respondents indicated that road access to health facility affected their choice, 99(25.78%) respondents indicated the distance affected their choice, 199(51.82%) respondents indicated the available finance affected their choice, and 144 (37.5%) indicated that the unavailability of skilled birth personnel in a birthing place affected their choice.

Test of Association between selected social factors and the women's choices of childbirth places

Table 2 shows multiple response chi-square contingency table of social factors and childbirth place, this consists of the observed count revealing the way the variables are distributed into categories.

Table 2: Extent to which social factors influence the women's choice of childbirth places

		Childbirth Place				X^2	df	P-value	Remark
		Health Facility	TBA	Home	Others				
Road access to health facility	Yes	154	6	5	0	5.47	3	0.140	Not Significant
	No	197	13	4	5				
Distance	Yes	99	0	5	0	12.69	3	0.005	Significant

	No	252	19	4	5				
Available finance	Yes	187	10	0	2	10.26	3	0.016	Significant
	No	164	9	9	3				
Unavailability of skilled birth personnel	Yes	133	9	0	2	6.23	3	0.101	Not Significant
	No	218	10	9	3				

The result indicates there is no significant association between road access to health facility (X^2 =5.47, p= 0.140) as well as unavailability of skilled birth personnel(X^2 =6.23, p= 0.101) and choice of childbirth places but there is significant association between distance (X^2 =12.69, p= 0.005); available finance (X^2 =10.26, p= 0.016) and choice of childbirth places. This is to say that the way social factors are distributed into categories could influence childbirth choices among the women of childbearing age in Oyigbo Local Government Area of Rivers State in diverse ways.

Association between the educational status and the women's choices of childbirth places in Oyigbo

Table 3: Association between the educational level and choice of childbirth place

	Childbirth Place							
Education	**Health Facility**	**TBA**	**Home**	**Others**	**X^2**	**df**	**P-value**	**Remark**
≤ Primary	29	2	2	0	18.75	6	0.005	Significant
Secondary	191	17	6	5				
≥Tertiary	131	0	1	0				

The results on Table 3 shows that with X^2= 18.75, *p*-value = 0.005 which is less than the level of significance 0.05. Therefore there is a significant association between educational level and choice of birth place.

Association between income level and the women's choices of childbirth place in Oyigbo

Table 4: Association between the levels of income and choice of birth place

	Childbirth Place							
Income	**Health Facility**	**TBA**	**Home**	**Others**	**X^2**	**df**	**P-Value**	**Remark**
<N30,000	237	16	7	3	8.38	6	0.212	Not Significant
N30,000 – N79,999	61	3	2	2				
≥N80,000	53	0	0	2				

Table 4 showed that the X^2cal is 8.38 and p= 0.212 is greater than 0.05. Therefore the null hypothesis is not rejected. This indicates that there is no significant association between the levels of income and childbirth places among the women of childbearing age in Oyigbo Local Government Area of Rivers State.

IV. DISCUSSION

Choice of childbirth place among the women of childbearing age

From the findings of the study as revealed in Table 2, 91.4% of the respondents (majority of the respondents) choose health facility as childbirth place than traditional birth attendant homes, home delivery and others. This implies that the respondents are aware of the presence of skilled medical professionals in health facilities which is the assurance of their safe delivery [26]. This suggests that the women of childbearing age in Oyigbo are mostly educated, which agrees with Okeshola and Sadiq in their study that in terms of educational background, most educated women prefer hospital child delivery to home delivery[22]. Other studies like Nigeria Demographic and Health Survey (NDHS) may have divergent opinion that majority of women of child bearing age, deliver at home [27]. But unlike the northern part of Nigeria which has the highest number of records of such births [11], the southern part of Nigeria is lower.

Social factors and choice of childbirth place among the women of childbearing age

Findings from Table 2 revealed that there is no significant association between social factors; distance and unavailability of skilled birth personnel, and choice of childbirth places but there is significant association between social factors; road access to health facility and available finance, and choice of childbirth places in Oyigbo Local Government Area of Rivers State, concurring with Omideyi (2008) who pointed out that social factors affect the choice of childbirth places among women of child bearing age in most countries of Africa[10], and Esienumoh *et al.* (2016) study which is in disagreement to our result noted that the residents of riverine areas of Bayelsa and some parts of Rivers state have adopted home births as their lifestyle because it is easier to deliver at home than cross the river on a boat during labor to a nearby hospital in such environments[15].However, due to the emerging urbanization in Oyigbo local government area, there are better road networks and standard health facilities available to these women with skilled personnel but the distance and the available finance at the time of birth influence the women's choices of childbirth place. They might settle for the closest health center even though they prefer a personalized birthing place or give birth at home even though they might prefer a traditional birth place or hospital.

Educational qualification and choice of childbirth place among the women of childbearing age

Findings from Table 3 revealed that there is significant association between the educational qualifications and choice of childbirth place among the women of childbearing age in Oyigbo Local Government Area of Rivers State. Weighing the impact of the level of education among the women; albeit majority of the respondents had secondary and tertiary education, most of the women from all levels of education chose hospital delivery. The importance of education is an essence of antenatal care and how to manage disease/illness experienced by pregnant women [1] which they get from the hospitals/health facilities. Educational qualification among the women significantly affect their childbirth place choices and this agrees with Omideyi (2007) who pointed out that, social factors such as level of education affect the choice of childbirth places among women of child bearing age in most countries of Africa [10]. Maternal health and antenatal knowledge could be easily accessible to everyone even without formal education but education is necessary for assimilation, and Weitzman (2017) avowal on the importance of education on maternal practices and healthcare use, stating that the effect of education predominantly flow through women's cognitive skills, material resources, and autonomy [21].

Level of income and choice of childbirth place among the women of childbearing age

Findings from Table 4 revealed that there is no significant association between the level of income and choice of childbirth place among the women of childbearing age in Oyigbo Local Government Area of Rivers State. This study opposes to Okeshola and Sadiq which articulates that Unemployed women who their husbands cannot afford to cover the cost implication of

delivery at hospitals usually encourage their wives to either deliver at home or in an unskilled birth attendants place, and for most mothers who are not restricted by finance, it is the safety of mothers and their babies that determines place of delivery [22]. WHO noted in their study that maternal mortality has become a serious problem in middle income countries with Sub-Saharan African amounting for about 66% of the maternal deaths [2], and according to Ronsmans and Graham, economic accessibility to medical care affects the child birth practices of women in sub-Saharan Africa [9]. Nevertheless, this study argues that income is not the major determinant but the available finance at the time of birth, albeit the women in Oyigbo are not earning much but majority of them are entrepreneurs and traders who earn daily income. Women who are money available to them may decide to spend it on a facility delivery of their choice [22].

V. CONCLUSION

Based on the findings of the study, it can be said that there is a high level of preference for health facility as a birthplace choice among women in Oyigbo Local Government Area of Rivers State. All in all, the social factors distance and available finance influence on the choices of childbirth places of women in Oyigbo Local Government Area of Rivers State, and that the choice of childbirth place is majorly influenced by their educational status than level of income

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