

**FAMILY VARIABLES AND HEALTH OF WOMEN OF REPRODUCTIVE AGE IN UNIVERSITY OF CALABAR TEACHING HOSPITAL IN CROSS RIVER STATE, NIGERIA**

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**ABSTRACT:** The study investigated family variables and health of women of reproductive Age in University of Calabar Teaching Hospital of Cross River State, Nigeria. To achieve these objectives, two null hypotheses were formulated from the independent variable namely; family size and educational background to guide the study while relevant literatures were empirically and theoretical reviewed. Anderson behavioural model and quality and quantity tradeoff theory were used as the theoretical background. Using the survey design and the purposive sampling technique, 100 questionnaires were administered on 50 respondents each from women of reproductive age seeking ante-natal and post-natal healthcare services in UCTH. Using the Pearson Product Moment Correlation Statistical Technique to run the hypothesis, the findings revealed that there is a significant relationship between family variables and health of women of reproductive age and that educational background significantly influences the health of women of reproductive age. It was therefore recommended amongst others that, health policy makers should design and strengthen better family reduction programmes that would be well targeted and result in a remarkable decrease in maternal health challenges.

**KEYWORDS:** Family Variables, HealthCare Services, Reproductive Age, Health Policy

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## **INTRODUCTION**

Good health is essential to every individual, community and the society at large especially women of reproductive age. This is because a healthy society is a wealthy society. Being healthy is not just the absence of diseases and infirmity but a state of complete physical, mental and social well-being (WHO, 2000).

The importance of healthy living is of concern to all stakeholders and different levels of government being that when the citizenry are in good health it brings about positive outcome in human development. Thus the wealth of any society can be determined by the health status of its subjects. WHO, (1999) statement stressed that, “women are the mainstay of families, they are key educators of children healthcare providers, care givers of young and old alike, farmers, trader and often the main, if not the sole bread winners. Bradley, (2002) supports the above view by stating that women in most families are the providers of healthcare and the health of children depends on the health of the mothers and her knowledge and practice relating to good health: Thus the quality of health a woman has determines the state of health of her child/children during pregnancy and after and birth. Women make important and diverse contributions to socio-economic development of the family and the nation as wives, mothers, healthcare providers, counselor, etc and as such their health should be given more attention (Ihejiamaizu, 2002). Research has shown that women suffer needless death and complication

during pregnancy, childbirth and after childbirth due to several activities and actions that has serious implications for women of reproductive age in our societies.

Nigeria being a third world country suffers the epidemic of poverty which is a potent factor that depletes the health status of women. This is clear in a statement documented by the World Health Organization Report in 1999, that about 60% of Nigerians live below \$ 1 per day that shows the health status of its citizenry. The adverse effects of these pictures are seen in the poor maternal health in developing countries especially in Nigeria. The implications are even worse when some family variables related with poverty are involved.

WHO, (2012) x-rayed that, everyday approximately 800 women die from preventable causes related to pregnancy and childbirth, 99% of all maternal death in developing countries and they are largely preventable. They further noted that the maternal mortality in developing countries is 240 per 100,000 births versus 16 per 100,000 in developed countries.

Obionu, (2007) observed that, pregnancy and childbirth complications are well recognize as being hazardous in most societies. In developing countries like Nigeria, maternal mortality has continued to be a public health problem aside the high rate of infant mortality in our country. WHO (2014) reports stated facts on maternal health pointing out that, 289,000 women died in 2013 of complications during pregnancy, childbirth and after childbirth. Most of these deaths can be avoided if necessary preventions are taken on human action/activities that may not be healthy. UNICEF Report (2014), further revealed that “apart from losing about 2,300 under five year old children every single day Nigeria also loses 145 women of reproductive age. This makes the country the second largest contributor of under-five and maternal mortality rate in the world

Park, (2006) contended that more than 500,000 women died during child birth each year. These is due to ignorance, illiteracy, lack of money, poverty, cultural belief, poor hygiene environment, food restriction amongst others which could have been prevented during maternal care. The Millennium Development Goals (MDGS), (2014) assets that maternal health improvement could set the pace for reducing 75% maternal mortality and achievement of reproduction health accessibility universally by 2015. But so far progress in reducing mortally rate in developing country and provision of family planning services has been too slow to meet its targets.

Despite all attention given to improve the quality of health of women of reproduction age through the years by providing family planning service, free pre-natal and neo-natal care, health education, enlightenment programmes, etc. there seem to have been no remarkable reduction in the University of Calabar Teaching Hospital of Cross River State, Nigeria outcomes. It is in the verge that the researcher seeks to find out “what extent family variables such as family size, educational background amongst others influences the health of women of reproductive age in the University of Calabar Teaching Hospital in Cross River State, Nigeria. Specifically the objectives of the study are to investigate the following: To examine family size and health of women of reproductive age and to examine educational background and health of women of reproductive age.

## LITERATURE REVIEW

The size of a family could be defined “as the number of children within a given family, which determines the quality of control and interaction of parents with their children (Obi, 1995). Kwakpovwe, (2001) opines that, family size is the number of children contained in a particular household. Small family is number of children between 1-11 while large family is number of children between 6-12 and above. Researchers on the influence of family size on maternal health reveals that the presence of large numbers of people in the family has an adverse effect on member’s health especially women of reproductive age.

Kwakpovwe, (2001) asserts that, in small families the parent and children enjoy because their parent have less financial demands, hence the family income is enough to care for the needs of the family members like their health equipment, clothing, shelter, food etc. Brown, (2003) on the contrary, stressed the disadvantages of large family are malnutrition, illiteracy due to lack of money, poor health of women of reproductive age and inadequate healthcare. Kwakpovwe, (2001) also noted that, large families are usually physically, emotionally and psychologically unhealthy because parents have more financial burden.

McLeren, (2005) concluded that, having many children implies having many troubles, considering the fact that the women may not have any house help and most times the burden of having to cook, clean the house and care for children rest solely on her. The adverse effect occurs when women due to a lot of stress of managing the home face complication during pregnancy and child birth and the situation may even lead to death.

Arthur, (2006) observed that, a large family comes with so many implications such as poor healthy, low income and status, low level of education, pressure on environmental resources due to over population, poor child care and poor nutrition. Arthur, (2006) further noted that, women in small families 1-6 children (parent inclusive) visit the hospital for check-up regularly, such that most of the sickness such as malaria and other minor health challenges can be avoided with basic preventive measures thereby improving their health. But women in large family do not visit the hospitals for medications, prenatal or post-natal services due to low-income, lesser spousal support in terms of income. This leads to poorer outcome in women’s health.

Blake, (2004) examined the effect of large family size on maternal health. In his study he focused on the number of children one women has and the health outcome. To him, large family greatly influence women’s health leading to high blood pressure, hypertension, lower weight children, etc. Thus the more the number of children a woman bears, the increase in hypertension, blood pressure and so on.

Educational background of women affects the outcome of maternal health leading to still births and even deaths of mothers or their babies. Down through the years many studies has shown that one of the key to improve survival chances for children in developing countries is the educational level of their mothers. Surveys show that mothers who had seven or more years schooling, were subject to less risk of complication or death than those mothers who had no schooling at all.

Etobe, (2005) opines that, education enables women to conceptualize family size and reproduction as being an aspect that is separated from tradition and culture and as something which is within their control. Education gives women knowledge of the possibility and means

of planning birth, the power to chart their own diet and seek medicare. It also allow for the dissemination of knowledge regarding family planning.

Lim, (1991) as cited in Etobe, (2005) observed that education increases the chance that, women will find work that pays better and has career potential, thus enabling women to achieve good health through the degree of economic dependences. Being financially empowered women could undergo medical investigation and treatment meted out for them during pregnancy, or child birth with or without the support of their spouse.

Arthur, (2006) sees illiteracy as one of the factors that influences the health of women of reproductive age. He observed that women who are educated are likely to visit the hospital for checkup or medication and delivery while those who are uneducated don't visit the hospital but patronize the traditional birth attendant. Lack of education among women of reproductive age undoubtedly contributes to the widespread of self-neglect of many women. They tend to be inattentive to their health needs illness and fail to seek care. It is lack of education an its correlates-ignorance amongst others that often make women passive to accept the conditions of life that are meted out to them in the name of culture and tradition. On this note Nijikan, (1994) concluded that low level of education together with other factors exert a strong influence on the health of women of reproductive age especially during pregnancy, delivery and after child birth.

Baumirind, (2004) suggested that, family variables such as parents level of education have been regarded as a predicator of women of reproductive age attaining good health. A woman's educational background is part of those variables that influences her health outcome during pregnancy, childbirth, etc. He further noted that attending a higher level of education may give them access to resources such as income, information on health. Thus influencing the health outcome and reducing the risk of complication and maternal mortality.

Sharma, (2004) revealed that, educated women realize the benefit of maternal health services and family planning method than the illiterate women. He also stressed that, with improved educational level of women of reproductive age, there is bound to be an improve outcome in maternal health. Ratzan, Filerman & Lasar, (2002) assert that, "a mothers educational level influences her health". Women's chances of surviving during pregnancy and childbirth usually depend on the mothers' educational level. Women's education is interrelated with many other health determinant compared with less educated women, the educated woman is more likely to marry at an older age and consequently to have her first birth later. She is more likely to use family planning and to want have fewer children-all this factors bring about a better maternal and child health.

### **Anderson's Behavioural Theory**

The proponent of this model is Anderson. The model was developed in 1968 to explain the differences in access to health services in the United States of America. The model examines the influence of individual's demographic characteristic and health delivery system variables on utilization pattern. It hypothesize that the decision to seek medical help is a function of three sets of variables.

- (i) Predisposing factors, such as age, sex, marital status, family size, social status, education and race and

- (ii) Enabling factors, such as family income, health insurance service availability and health level symptoms or perceived sickness.
- (iii) The need to use service factors.

The model posits that certain factors predispose people towards health service utilization, while other factors would enable the utilization of service. Even though an individual may be predisposed to use a health service, some means must be available for him/her to do so (Anderson & Newma, 1973). Enabling conditions make health service resources to the individual. Enabling factors include family income, health insurance and access to a source of care (Anderson & Newma, 1973). These factors would, therefore by their presence or absence, enable or hinder the health of women of reproductive age.

Furthermore, Anderson, (1968): identified a third factor, the need for service. This he states, is perhaps the most powerful predictor of utilization. Even with the existence of predisposing and enabling factor, the individual seeking care must still perceive the need for health care before seeking care. (Anderson & Newma, 1973).

This theory is relevant to this study because according to this model such factors as family size, social status, educational background, etc predisposes a woman's choice of healthcare service. As an example, a woman with a high social status or level of education will opt to considering her exposure to this kind of healthcare compared with a woman with a low social status and low level of education. Moreover, those enabling factor such as family income can also affect a woman's patronage of health care services as well as their health outcome. Due to the expensive nature of healthcare services, if a woman's family income is high, it will increase her exposure to healthcare services during pregnancy or child birth, but if she can't afford health care services, it will hinder her patronage of health care service.

Finally the existence of a large family size could also be a predisposing factor that hedges a woman from giving her health attention. For instance scholars opines that a large family comes with more financial demands due to competition of resource to meet basic needs such as food, shelter and clothing and the little or nothing left is not sufficient to cater for healthcare need leading to a high rate of maternal mortality and morbidity.

### **Quantity and Quality Tradeoff Theory**

This theory was developed by Gary Becker and his associates (Becker, 1973; Becker and Lewis 1973, Becker and Tonies 1976, Willis 1973). According to this model, an increasing marginal cost of quality (child outcome) with respect to quantity (number of children) leads to a tradeoff and either confirmed the prediction by observing a negative correlation between family size and child quality or found such correlation (Ann et al 1998, Blake 1981, Knodel, Havanon, and Sittitrai 1990; Knodel and Wongsith 1991, Sudha 1997).

The theory is relevant to this study as it reveals the knowledge of the effect of family size on the child outcome and the implication it has for the health of women of reproductive age in developing countries particularly Nigeria. This theory suggests that the quantity of children a woman has affects the outcome of the children due to the competition of family resources. Thus the decrease in family resources on each child increases the health outcomes of women of reproductive age during pregnancy, childbirth and after child birth.



## **METHODOLOGY / DATA ANALYSIS**

### **Research Design**

The research design adopted for this study is the survey research design because it is the most appropriate. According to Kerlinger and Lee (2000) survey design is directed toward determining the nature of the situation that exists at the time of investigation. Survey design aims at finding out the relationship between variables of the study and elicit information that reveals specific facts about the entire population of the study. It basically uses questionnaire and interview as a means of data collection.

### **Research Area**

The research area is University of Calabar Teaching Hospital in Cross River State, Nigeria. It is situated in Calabar. It was established in November, 1897 as St. Margaret Hospital before it metamorphosed into UCTH in 1980. (UCTH Annual Report, 2014). It is located at Ettagbor Layout opposite Unical Hotel. It's mission is to provide excellent healthcare, training and research for its clients using skilled manpower and state of art equipment with emphasis on tropical disease research prevention and control. It has a total number of five thousand, three hundred and seventy-eight staff at present working including prospective retirees between May, 2015 to December, 2015. It has seventeen (17) functional wards and fifty-six (56) departments. (Francis, 2014).

### **Population of Study**

The population of the study consists of women of reproductive age receiving ante-natal and post-natal care in University of Calabar Teaching Hospital in Cross River State, Nigeria.

### **Sample and Sampling Technique**

For the purpose of this study, hundred (100) respondents were selected using the purposive sample technique to pick women of reproductive age receiving ante-natal and post-natal healthcare service from University of Calabar Teaching Hospital because not all women of reproductive age who go to UCTH to receive healthcare services go there for ante-natal and post-natal healthcare service..

### **Method of Data Collection**

The fundamental instrument adopted for this study was a structured questionnaire and key in format interview. The questionnaire was administered personally by the researcher to hundred respondents in the study area. 50 respondents each were selected from those women of reproductive age receiving antenatal and post-natal healthcare services.

### **Method of Data Analysis**

Pearson product moment correlation coefficient was applied to establish the relationship between the variables under investigation.

**Table 1: Responses of medical service sought**

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
<b>Medical services sought</b>	Pre-natal	50	50.0
	Post natal	50	50.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in Table 1, out of the 100 respondents sampled 50 respondents on admission were seeking for antenatal services while the other 50 respondents were seeking for post natal services. The spread could be caused by two factors, one could be that it was the interest of the researcher the second reason could be the time of visit for the administration of the questionnaire.

**Table 2: Demographic information of respondents**

<b>Variable</b>	<b>Classification</b>	<b>N</b>	<b>Percentage (%)</b>
<b>Age</b>	Below 19 years	5	5.0
	20-24 years	36	36.0
	25-29 years	51	51.0
	30years and above	8	8.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

The responses from respondents shows that majority 51 respondents representing 51% are between the ages of 25-29years, those between 20-24 years were 36 respondents comprising 36%; 8 respondents representing 8% were between the ages of 30years and above while 5 respondents were 19years and below. This implies that respondents within the age range of 26 to 30 were more productive and it dwindles as the ages increases.

**Table 3: Family size**

<b>Variable</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentages</b>
<b>Family size</b>	1 – 6	35	35.0
	7+	65	65.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in Table 3 most of the respondents have large family size 65.0 percent while only 35 per cent have small family size. The implication is that most of the families in this claim to have large family.

**Table 4: Educational level**

Variable	Categories	Frequency	%
Educational Level	No formal education	8	8.0
	Primary Education	11	11.0
	Secondary Education	72	72.0
	Tertiary Education	9	9.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in Table 4, the educational level of the respondents shows that 72.0 respondents comprising 72.0% have completed secondary education, 11 respondents have completed primary education, 9.0 percent have benefited from tertiary education and only 9.0 per cent have not benefited from formal education. This implies that respondent's highest level of education was secondary education which this shows the low level of illiteracy among women of reproductive age.

**Table 5: Marital status**

Variable	Category	Frequency	Percentage
Marital status	Single	11	11.0
	Married	77	77.0
	Divorced	6	6.0
	Separated	6	6.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in table 4 majorities of the respondents are married 77.0 percent, 11 percent are single, and 6.0 percent are divorced and separated. This implies that marriage is the base line for reproductive in Nigeria as reflected in the response of women.

**Table 6: Responses on occupation**

Variable	Categories	Frequency	Percentages
Occupation	Self-employed	12	12.0
	Unemployed/student	23	23.0
	Civil servants	39	39.0
	Farmers	26	26.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in Table 6 most of the respondents 39.0 percent are civil servants, 26.0 percent are farmers, 23 percent are unemployed/students while 12 percent are self-employed. This implies that the civil service rule permits, women of reproductive age to combine family life with work. It also shows that unemployment rate is not a barrier to reproduction.



**Table 7; Income per annum**

Variable	Categories	Frequency	Percentages
Income per annum	Above 500,000	12	12.0
	#250,000-500,000	47	47.0
	Below #250,000	41	41.0
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Fieldwork 2015

As presented in Table 7 majority of the respondents earn annual income of between #250,000.00 -500,000; while 41.0 percent earn below 250,000 per annum, only 12.0 percent earn above #500,000 per annum,. This is a reflection of the state of our economy.

### Hypothesis one

In the null form hypothesis one states that, there is no significant evidence that family size influences the health of women of reproductive age, in this hypothesis the independent variable is family size and is measured continuously while the dependent variable is health of women. To test the hypothesis Pearson product moment correlation was employed to analyze the data. The result is presented in Table 8

**Table 8:** Pearson Product moment correlation between family size and health of women

Variables	N	Mean	SD	r-value	Sig
<b>Family size</b>	100	15.87	1.48	0.304**	.000
<b>Health of women of reproductive age</b>	100	35.06	3.28		

\*significant at  $P < .05$ ; critical r-value = 0.138; df = 48.

Source: Fieldwork 2015

Pearson product moment was conducted to investigate the influence of family size and health of women. As presented in Table 8 the calculated r-value of 0.304 is greater than the critical r-value of 0.138 with 198 degree of freedom, this result therefore implies that the null hypothesis which states that, there is no significant relationship between family size influence on the health of women of reproductive age is rejected while the alternate hypothesis is upheld. It therefore means that, there is statistical significant influence between family size and health of women.

### Hypothesis two

In the null form hypothesis two states that, Educational background does not have any significant influence on the health of women of reproductive age, in this hypothesis the independent variable is Educational background while the dependent variable is health of women of reproductive age. To test the hypothesis Pearson product moment correlation analysis was employed to analyze the data. The result is presented in Table 9

**Table 9:** Pearson product moment correlation between Educational background and health of women of reproductive age

Variables	N	Mean	SD	r-value	Sig
Education background	100	17.65	1.95	0.588**	.000
Health of women of reproductive age	100	35.06	3.28		

\*significant at  $P < .05$ ; critical r-value = 0.138; df = 98.

Source: Fieldwork 2015

Pearson product moment correlation analysis was conducted to investigate the relationship between educational background and health of women of reproductive. As presented in Table 9 the calculated r-value of 0.588\*\* is greater than the critical r-value of 0.138 with 98 degree of freedom, this result therefore implies that the null hypothesis which states that, „Educational background does not have any significant influences the health of women of reproductive age is rejected while the alternate hypothesis is upheld. It therefore means that, there is statistical significant relationship between educational background and health of women of reproductive age.

### Discussion of Findings

The result of the statistical analysis of hypothesis one of this study reveal that there is a significant influence between family size and health of women of reproductive age in University of Calabar Teaching Hospital in Cross River State. These findings is supported by Brown, (2003) who opined that the disadvantages of large family includes malnutrition, illiteracy, poor health of women of reproductive age and inadequate healthcare. Kwakpovwe, (2001) also noted that, large families are usually physically, emotionally and psychologically unhealthy because parents have more financial burden; Arthur, (2006) observed that, large family comes with some implication such as poor healthy, low income and status, low level of education, pressure on environmental resources due to over population, poor child care and poor nutrition. He further noted that women in large families do not visit the hospital for prenatal or postnatal healthcare service leading to poorer health outcomes.

The result of statistical analysis of hypothesis two of this study revealed that there is a significant relationship between educational background and health of women of reproductive age in University of Calabar Teaching Hospital in Cross River State. The findings is in support with Arthur (2006) who sees illiteracy as one of the factors that influences the health of women of reproductive age. He observed that women who are educated are likely to visit the hospital for checkup and delivery while those who are uneducated don't visit the hospital but patronize the traditional birth attendant. Nijikan, (1994) concluded that low level of education together with other factors exert a strong influence on the health of women of reproductive age after child birth.

Ratzan, Filerman&Lasar, (2002) assert that, “a mothers educational level influences her health”, women's chances of surviving during pregnancy and childbirth usually depends on the mothers educational level.

## RECOMMENDATIONS

Based on the problems, the objectives and the findings of this study, the following recommendations were made.

- ❖ Health policy makers should design and strengthen better family reduction programmes that would be well targeted and result in a remarkable decrease in maternal health challenges.
- ❖ Government should make effort to ensure maximum educational attainment opportunities for girl children as well as women of reproductive age in order to expose and enlighten them on those maternal health issues and ways of prevention.

## CONCLUSION

From the findings of the study, it can be concluded that the alarming decrease in the health attainment of women of reproductive age over the years can be attributed to the fact that women suffer some element of neglect due to some family variables as family size and educational background. In this way, they tend to exhibit behaviours that impact on their health with over all failure to achieve a positive health outcome. The implication of this is that if women of reproductive age could avoid or prevent those activities and actions that leads to complications and maternal mortality, there will be in an improvement in their health.

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