Research Paper

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# Socio-Demographic Determinants of Health Care Programme Usage by Women During Pregnancy and Child-Birth in ADO-ODO/OTA Local Government Area of Ogun State, Nigeria

Social Science

**KEYWORDS :** Socio, Demography, Heath care, Women, child-birth.

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## ABSTRACT

*This study sought to determine the socio-demographic factors responsible for health-care programme usage by women during pregnancy and child-birth in a developing country like Nigeria, especially in Ado-Odo/Ota Local Government Area of Ogun State. Three research questions and one hypothesis were formulated to guide the study. The descriptive survey research design was adopted for the study. A sample size of two hundred and sixty (260) respondents were selected from five rural wards in the Local Government Area using the stratified random sampling technique. A face to face structured interview and focus group discussion were used for data collection. Content analysis and the econometric bivariate regression model were used for both qualitative and quantitative data analyses respectively. The hypothesis formulated for the study was tested using ANOVA. A total of eleven independent variables were used for computing the regression equation/model. Data analyses yielded eight findings which showed the significant factors that determine health-care programme usage by pregnant women. These are level of educational attainment, distance to health-care facility, male domination women's perpetual dependence on men, poverty and so on. These findings were exhaustively discussed and some appropriate policy implications and recommendations outlined.*

**Introduction**

Maternal health means ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth. Women's health is a critical area which reflects national health standards and therefore basic to women's advancement. The health of mothers and children has improved dramatically during the last two decades globally as a result of the increase in (imported) medical advancement, availability of low-cost and high impact public health measures such as Oral Rehydration Therapy (ORT) and vaccine for mothers/children, improved nutritional practices, improved maternal and child health care. In spite of the above development, more than half a million women (many of them living in developing countries) die during pregnancy or childbirth or within a few weeks of delivery. (WHO, UNICEF and UNFPA, 2003).

A recent study by Abudoulaye (2006) reveals that a ratio of 1:15 African women die from complications of pregnancy, delivery or puerperium. In Asia, according to the same study, the ratio is 1:105, Europe is 1:1895 and North America is 1:3750. Despite the global efforts to improve maternal health and safer delivery through the International Safe Motherhood Initiative, 1987 in Kenya, World Summit for Children, 1990, International Conference on Population and Development (ICPD), 1994, Beijing Fourth World Conference on Women, 1995, ICPD +5 & +10, Beijing + 5 & +10, Sri Lanka, 1997, United Nations MDGs 2000, and its local equivalent in Nigeria such as National Safe Motherhood Conference, Abuja 1990, Integrated Maternal Newborn and Child Health Strategy, etc, there is still high maternal deaths in the country. In fact, four years into the lifeline for achieving Millennium Development Goals (MDGs) there is no clear evidence that Nigeria has made any remarkable achievements in that respect.

Nigeria ranked second globally as the country with the highest estimated number of maternal deaths with 37,000 cases of maternal deaths annually. India occupied the first place with 136,000 maternal deaths and Pakistan was in the third place with 26,000 deaths. The World Health Organization (WHO, 1977) cited in Okeibunor (2011) define maternal mortality as the "death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration or life of pregnancy for any cause related to or as aggravated by pregnancy or its management but from accident causes". Based on UNICEF (2005) data, the average lifetime risk of a woman in less developed countries dying from complications related to pregnancy or childbirth is more than 300 times greater than that of a woman living in an industrialized country. Millions of women who survive childbirth suffer from pregnancy related injuries, infections, diseases and disabilities, often with lifelong consequences. It is further argued from research that approximately 80 percent of maternal deaths could be averted if women had access to essential maternity and basic health-care services which are far better in developed than in developing countries. For instance, the use of modern health facilities seem to be low in developing countries including Nigeria. The poor usage of health care services can be influenced by several factors ranging from social, economic, cultural, availability and accessibility. According to Federal Ministry of Health Nigeria (FMOH, 2006). These factors are accentuated by the pervading high level of poverty in the country, low status of women and high prevalence of harmful traditional practices, which constitute great obstacles to much needed reproductive health information and services for women in Nigeria.

The Alma-Ata Declaration-1977 perceives health as a fundamental human right and most important world wide social goal. It is also according to WHO (1941) "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Similarly, Onwujekwe (2013) sees health as a state of the human body and mind and health care as pertaining to those chemicals, devices and services utilized by people to improve their health. A health system therefore include all the organizations, institutions and resources whose major functions is to improve health and related services ranging from service delivery to policy-making and implementation (WHO, 2010). Thus, a viable health system needs to provide services which are not only responsive to needs of pregnant women but also generally adequate and affordable in terms of cost (Okeibunor, 2011). Invariably, the characteristics of good health system include improved health status (improved health efficiency), equity (accessibility) good quality, affordability, responsiveness, universal coverage and financial risk protection (WHO, 2010).

The Nigeria health system is perceived to be weak especially with respect to poor maternal and child health indices (Onwujekwe, 2013: p2). The country is said to have very high maternal mortality ratio (630 per 100,000 the birth), 58% ante=natal-Care (ANC) Coverage, 45% delivery by skilled birth attendants, very high under 5 mortality rate (153 per 1000 live births in urban areas and 243 per 1000 live birth in rural areas) (Onwu-

jekwe, 2013: p2). He further observed the "everyday 2300 children aged less than five years and 145 women of child-bearing age die in Nigeria" (p2). This predicament no doubt is attributed to a high population poverty with 63% of Nigerians living on below $1 (US) dollar a day.

Given the low maternal mortality reduction in Nigeria during the past ten years and the country's need to achieve the millennium development goals by 2015, little is known about the factors determining the utilization of health care services by women during pregnancy in Nigeria. This is particularly necessary because health inequalities seen to be largely driven by socio-economic factors (Joumard; et al 2011). Furthermore, WHO (2009) contends that the root causes of most health inequalities and human sufferings are largely social and would require decrease in social stratification by people in position of authority to address. This study therefore became imperative to determine the state of health care utilization among mothers during pregnancy and child delivery using community-based empirical data in order to proffer sound policy intervention measures. This is when women are in a state of pregnancy, their health status is far more complicated. It is therefore possible that inappropriate, treatment or even lack of appropriate and timely interventions underlies most maternal deaths in developing countries including Nigeria.

However, among the numerous factors militating against the use of health services by mothers, socio-demographic factors have been the least focused in terms of research (Addasi 2000). Health needs of women in relation to maternity cannot be addressed in isolation but rather through a holistic and inter-sectoral approach. This study is significant because it is expected to yield results that will be beneficial to all relevant stakeholders in the health sector. This is because high rate of maternal mortality and morbidity are related to knowledge about health services, the access to and utilization of services subject to availability. The existing interventions intended to benefit the target group is yet to be met. This means that there are other factors causing restraint to accessing health care services by pregnant women in addition to medical factors. No doubt, some studies have been carried out in this area but they concentrated on intervention measures to boost maternal health services; (Jamison, Feachem & Makgoba 2006). Indeed, fewer studies have dealt exclusively with the reasons for the retardation or poor utilization of the services. (WHO, UNICEF & UNFPA, 2001). Therefore, in order for maternal health programmes to remain focused, and to make a quantitative evaluation of programmes' results, maternal mortality statistics must be available at local and national levels to prioritize the health services.

## 3. Theoretical Framework and Review of Related Literature

### 3.1 Feminist Theory

The major proponent of this theory are Ritzer, Lengermann and Niebrugge (N.D.). Feminist theory is woman centered. It argues that whenever and wherever women are subordinated, (and they have been subordinated almost always everywhere) they seem to have recognized and protested that situation in the same form (Goodman, 2004). According to Barker (2004), feminism examines women in society and tries to further their interests. In general terms, feminism asserts that sex is a fundamental and irreducible axis of social organization which subordinated women to men. This structural subordination of women has been described by feminist as patriarchy with its derivative meaning of the male-treaded family, mastery and superiority (Ritzer, 1996).

The feminist theory is very relevant to this study because it adequately highlights the socio-cultural domination of women in African society by their male counterparts. Women are contextually made or coerced to be perpetually dependent on their husbands on social, political and economic issues and decisions, including health matters. Little wonder then that African women rely on their men for decisions on which health-care system (orthodox or traditional) to patronize, especially during pregnancy and or child birth.

### 3.2 Review of Related Literature

Maternal education has been found to relate positively with the utilization of maternal care services (Addai, 2000; Celik and Hotchkiss, 2000). Education serves as a tool for information, cognitive skills, and values. Education exerts effect on health-seeking behaviour through a number of pathways. These pathways include higher level of health awareness and greater knowledge of available health services among educated women, improved ability of educated women to afford the cost of medical health care, and their enhanced level of autonomy that results in improved ability and freedom to make health-related decisions, including choice of maternal services to use. Educated mothers are more likely to take advantage of public health services than other women. Education may also impart feelings of self-worth and confidence as well as reduce the power differential between service providers and clients, thereby reducing the reluctance to seek care (Elo, 1992; Caldwell, 1979).

Cultural factors also affect the utilization of maternity care services in Africa (Leslie and Gupta, 1989). In consonance with the above assertion, WHO (1998) corroborates that in many part of Africa, women's decision making power is extremely limited, particularly in matters of reproduction and sexuality. The low status of women and husband's domination seem to worsen the ugly and poor utilization of health care services.

Indeed, maternal mortality and the poor health status of women in Nigeria are deplorable. Over 1000 women die from causes related to pregnancy and child birth and almost equivalent proportion suffer unnoticed. The Federal Ministry of Health (FMOH, 2007) observed that maternal morality ratio in Nigeria is estimated to be 800 per 100,000 live births. Women's health is a critical area, which reflects national health standards and basic to women's advancement. Furthermore, the Federal Ministry of Health (2006) also reveals that Nigeria contributes about 10% of the world's global burden of maternal mortality.

The estimated number of maternal deaths worldwide in 2000 was 529,001. These deaths were almost equally divided between Africa (251,000) and Asia (253,000), with about 4% (22,000) occurring in Latin America and the Caribbean and less than 1% (2,500) in the more developed regions of the world. In terms of the maternal mortality ratio (MMR), the world figure is estimated to be 400 per 100,000 live births. By regions, the MMR was highest in Africa (830), followed by Asia (330), Oceania (240), Latin American and the Caribbean (190), (World Bank, 2004; World Bank, WHO and UNFPA, 1987-2006).

The effort to lower maternal death rate has become a high government priority. This informed the launching of the National Programme for the Prevention of Maternal Mortality (NPPMM). The aim of this programme is to expand and strengthen advocacy projects for safe motherhood, ignoring the lack of both baseline estimate of sources and methods for tracking the incidence of deaths among pregnant women. These include reducing maternal mortality and morbidity by 50%, neonatal morbidity by 30%, unwanted pregnancies by 50%, and sexually transmitted infections by 50%. Setting targets for maternal mortality reduction without evidence based data is likely to end in non-achievement of goals. This is because evidence-based decision making clearly requires data which are readily available.

Recent surveys and studies on problem of maternal deaths have established that thousands of women in the reproductive age die during pregnancy or child-birth, either at home or in the hospital, (FMOH 2006, 2007 & UNICEF, 2005). Globally speaking, nearly half a million maternal deaths occur every year and ninety per cent of the deaths occurring in the developing world are preventable, to a great extent. While there are only 2-9 maternal deaths per 100,000 live births in the developed world, it is alarming to observe that it ranges from 300-1000 per 100,000 live births in the developing world (World Bank, 2004; Cohen, 2009). It is interesting to note that maternal mortality ratio in Nigeria is currently estimated at 800 to 1000 maternal deaths per 100,000 live births in 2000 (FMOH, 2006). Similarly, only 61 per cent of pregnant women received antenatal care

from trained providers, only 32.6 percent delivered in health facilities (NPC, 2004). In a study conducted by the Federal Ministry of Health and the United Nations Population Fund (FMOH & UNFPA, 2003) on the quality of care, only 18.5% of the 4,500 facilities surveyed had the capacity to provide emergency obstetric care. Even where the skilled attendants were available, poor inter-personal relations was reported to impact negatively on the utilization of services by women. It is interesting to note that health care utilization is poor in Nigeria. The 1999 multiple indicator cluster surveys (MICS) revealed that in the five years prior to the survey, about 12-13.9 per cent of women with births received antenatal care from a doctor or took place in a health facility and 34-36% of all births were delivered by skilled personnel (FOS/UNICEF, 1999; NPC, 2004: FMOH, 2003).

Indeed, maternal mortality and the poor health status of women in Nigeria are very deplorable. Remarkably, over 1,000 women die from causes related to pregnancy and child-birth and almost equivalent proportion suffer unnoticed. As already noted above, the Federal Ministry of Health reveals that maternal mortality ratio in Nigeria is estimated to be 800 per 100,000 live births. Obviously, women's health is a critical issue, which reflects national health standards (National Population Commission, 2004 & 2005). It is against this background that this study was conceived to identify socio-demographic factors of Health care programme usage by women during pregnancy and child birth in Ado-Odo Local Government Area of Ogun State Nigeria.

**4. Statement of the Problem**

It has been established by recent surveys and studies that thousands of women in the reproductive age die during pregnancy or child-birth, either at homes or in hospitals. In the same vein, nearly half a million maternal deaths occur globally every year and ninety percent of the deaths which occur in the developing countries are preventable, to a large extent. These deaths occur in spite of concerted efforts made by relevant international and national health agencies to reduce maternal mortality especially in developing and undeveloped nations. What could be responsible for this?

The hard fact is that only 61 per cent of pregnant women receive antenatal care from trained personnel, and only 32.6 percent deliver in health-care facilities. Moreover, health-care agencies and organizations have established the fact that only 18.5% of the 4,500 facilities surveyed had the capacity to provide emergency obstetric care. This therefore necessitated a social audit of every maternal death that take place in the developing world in order to identify the medical and non-medical problems or factors and measures initiated for preventing reoccurrence. To this end, the problem of this study therefore bothered on the socio-demographic determinants of health-care programme usage by women during pregnancy and child birth in Ado-Odo/Ota Local Government Area of Ogun State Nigeria.

**5. Research Questions**

The following research questions guided the study:

1. What are the major socio-demographic characteristics of women during pregnancy and child birth in Ado-odo/Ota Local Government Area?
2. What are the health care programme utilization characteristics of women during pregnancy and child birth in Ado-odo/Ota Local Government Area?
3. What are the major socio-demographic factors that determine maternal access to health-care services pregnancy and child-birth?

**6. Hypothesis**

The hypothesis formulated for the purpose of this study was stated in the alternative form. The hypothesis is:

**$H0_1$**: The socio-demographic characteristics of respondents (pregnant women) such as age, education and working status are significant determinants of health care facility utilization.

**7. Methodology**

The study adopted the descriptive survey research design. It covered five (5) rural wards of Ado-Odo/Ota Local Government Area in Ogun State, Nigeria. This local government area was chosen because it possesses similar characteristics with other ones nation-wide especially with respect to the variables of this study vis-à-vis health care usage by women during pregnancy and child-birth such as cultural, economic and educational factors. The study used face-to-face structured interview and focus group discussion (FGD) with a two-level analytical approach in data analysis. In-depth interviews were held with specific stakeholders in the community. Some officials of the five primary health care units in the wards were selected from staff of the only general hospital situated in the Local Government area of this study. A stratified sampling technique was adopted in selecting the respondents who were married women in child bearing age (15-49) years who had at least one live-birth in the last two years preceding the survey. On the whole, 260 female respondents were randomly selected from five wards out of the sixteen wards in the local government area. They were interviewed through a face-to-face approach and focus group discussion with a two-level analytical approach capturing both the qualitative data and information from the focus group discussion segment.

For the purpose of data analysis, the study adopted the Economics Bivariate regression model, which according to Keutsoyiannis (2001) and Gujarati (2009) is of the form.

$$Y = b_0 + b_1 x_1 + u$$

Thus, the form of the model to be estimated is:

$$Y = b_0 + b_1 x_{ii} + e_i$$

Where

Y = Dependent Variable

$b_0$ = Constant (intercept)

$b_{ii}$ = Respective independent variable coefficients

$x_i$ = Respective independent variables

$e_i$ = Respective Residuals or error terms

In this study, the respective independent variables ($x_i$) include: Religion (R); Type of Family (TF), Husband's Occupation (HO), Educational Attainment (EA), Husbands Perception about Pregnancy (HPP), Perception of Service (PS) Perception about ANC Cost (PANCC), Treatment Decision (TD), Distance to Health Facility (DHF), Who plays the Treatment Bills (WPTB), and Respondent's Age (RA).

The survey data were subjected to the above regressional computation and analysis using the statistical package for Social Sciences (SPSS), while information from the focus group discussions were transcribed and analysed using analysis. Thus, a combination of univariate and biariate analyses were conducted to ascertain maternal and infant mortality awareness and attitude of women towards those facilities available in the area. Moreover, the correlation coefficient (r) coupled with the coefficient of determination ($R^2$) were incorporated to ascertain relationships, direction and the strength of the association between the variables of interest.

**8. Results and Discussion**

The results of the study are presented below in tabular form and discussed.

**Research Question 1**: What are the major socio-demographic characteristics of women during pregnancy and child birth in Ado-Odo/Ota Local Government Area?

**Research Question 1:** What are the major socio-demographic characteristics of women during pregnancy and child birth in Ado-Odo/Ota local government area?

**Table 1: Socio-demographic characteristic of respondents**
**N = 260** **N = 260**

| Variables | Number | Percent | Variables | Number | Percent |
|---|---|---|---|---|---|
| Educational attainment | | | **Occupation status** | | |
| None | 59 | 22.7 | Farming | 40 | 15.5 |
| Primary level | 47 | 18.2 | Full time housewife | 24 | 9.1 |
| Secondary level | 144 | 55.5 | Labour/ unskilled | 60 | 23.2 |
| Tertiary level | 10 | 3.7 | Artisans | 38 | 14.2 |
| | | | Trading | 98 | 37.7 |
| Occupational status of husband | | | **Religion** | | |
| Farming | 33 | 12.7 | Christianity | 158 | 60.8 |
| Labour/ unskilled | 78 | 30 | Islam | 76 | 29.2 |
| Artisans | 49 | 18.8 | Traditional | 26 | 10.0 |
| Trading | 72 | 27.7 | Age | | |
| Unemployed | 28 | 10.8 | 15-19 years | 46 | 17.7 |
| Type of family | | | 20-29 years | 145 | 55.3 |
| Nuclear | 172 | 66.2 | 30-34 years | 45 | 17.3 |
| Extended | 88 | 33.8 | 35 years | 24 | 9.2 |

**Research Question 2:** What are the health care programme utilization characteristics of women during pregnancy and child birth in Ado-Odo/Ota Local Government Area?

**Table 2: Health care programme utilization characteristics of women during pregnancy and childbirth**

| Variables | Number | Percent | Variables | Number | Percent |
|---|---|---|---|---|---|
| Distance to health facility | | | Treatment decision | | |
| <1km | 122 | 46.8 | Husband | 189 | 72.7 |
| 1-2km | 54 | 20.9 | Wife | 43 | 16.4 |
| 3-4km | 24 | 9.1 | Relatives/ Neighbours | 28 | 10.9 |
| 5km and above | 60 | 23.2 | | | |
| Knowledge of place of ANC treatment | | | Assistance during delivery | | |
| Yes | 241 | 92.7 | Doctors | 52 | 20.0 |
| No | 19 | 7.3 | Nurses/ midwives | 148 | 56.8 |
| Perception of ANC cost | | | TBAs | 46 | 17.7 |
| Very expensive | 5 | 1.8 | Relatives | 14 | 5.5 |
| Expensive | 93 | 35.9 | Feeling about services | | |
| Moderate | 135 | 51.8 | Satisfactory | 160 | 61.5 |
| Cheap | 27 | 10.5 | Unsatisfactory | 100 | 38.6 |
| Availability of ambulance at health facility | | | Preferred health facility | | |
| Yes | 74 | 28.6 | Hospital/PHC | 117 | 45 |
| No | 186 | 71.4 | Traditional Healer | 81 | 31 |
| Awareness of referral facility at the health center | | | Faith clinic | 39 | 15 |
| Yes | 156 | 60.0 | Indifference | 23 | 9 |
| No | 104 | 40.0 | | | |
| Husband's perception about pregnancy | | | | | |
| Risky | 101 | 39 | | | |
| Non-risky | 138 | 53 | | | |
| Indifference | 21 | 8 | | | |

Results in Tables 1 and 2 show that the educational attainment of the respondents is very poor with slightly above half of the population having only secondary education (55.5%). Respondents with no schooling (those within primary school level) account for 22.7 and 18.2 percent respectively. Nevertheless, a negligible number of the respondents had attained above secondary level education (3.6%). This is serious in view of the importance of education as a vital force in shaping the whole gamut of an individual's life particularly mother's empowerment. This finding is in line with (Addai, 2000, Celik and Hotchkiss, 2000, Elo, 1992 & Caldwell, 1979).

Distance to the health facility is also a major retarding factor in accessing health services among the five wards in the study area. While 68% of the respondents have health facilities within two kilometers distance from their homes, a reasonable proportion (32%) of the respondents have to walk beyond three kilometers distance to access health services. This is a problem, especially as the road network is poor or virtually not in existence coupled with lack of transportation. A pregnant mother will prefer to visit the next door traditional birth attendant rather than to walk for kilometers to the health centre where she has no confidence in the service.

The low status of women is manifested in who decides where the household including pregnant mother should go for treatment as well as the payment of the treatment costs. These are exclusively the domain of the husband especially in African countries where culturally, male dominance and women subjugation are normal ways of life. In the study area, 73, per cent of the respondents stated that it is their husbands who decide when and where to go for treatment and equally pay for the treatment costs. The implication of this is that a woman has no reproductive right whether pregnant or not. She is grossly incapacitated to take care of herself as permission is needed for any visit to health clinic. A number of socio-cultural beliefs and practices in Nigeria limit the ability of women to take independent decisions about their own lives, including the decision to seek appropriate healthcare. The decision-making power often lies with the husband or their male relatives (WHO, 1988, Leslie & Gupta, 1989).

The awareness of place of antenatal care (ANC) is fascinating as overwhelming proportion of the respondents admitted knowledge of place of ANC treatment (93%). However, the common reasons hindering attendance or registration for antental care is high cost of ANC services. Only one-tenth (10.5%) of the respondents agreed that what they spend at health centres is convenient (cheap) for them. However, 51.8 percent and 37.7 percent stated moderate and expensive charges respectively. Cost may reduce women's use of maternal health services and from having hospital-based deliveries or seeking care even when complications arise. Information gathered through in-depth interview revealed that even when formal fees are low, other informal costs such as buying complete delivery items, drugs, food, etc pose barriers to utilization of available health services.

The assistants during pregnancy and child birth were identified to be nurses/midwives (56.8%), doctors (20%); and traditional birth attendants (17.7%) and relatives (5.5%). The worrisome aspect of this is the high proportion of mothers patronizing home delivery, thereby putting themselves at the mercy of non-medical personnel in Nigeria and other developing countries. The occupational status indicates that larger proportion of the respondents is into trading (37.7%). This is followed by unskilled/labourers (23.2%), farming (15.5%) and artisans (14.5%). On the other hand, mothers who are fulltime housewives account for the least (9.1%). Similarly, the husband's occupational status indicates that larger proportion of the respondents' husbands are into unskilled jobs (30%). This is followed by trading (27.7%), artisans (18.8%) and farming (12.7%). Nevertheless, 10 percent of husbands are unemployed.

Other motivating forces are the availability of ambulance services and referral facility. Respondents will patronize health centres with the above facilities as the journey of pregnancy and child-birth is not a smooth one in this part of the globe. However, respondents' assertion on the provision of or existence of ambulance and referral arrangement registered 29% and 60% respectively. Feeling is an internal mechanism that drives one to

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his or her directional behaviour. When the feeling is not right, the propensity to patronize will be lacking. The general feeling of respondents about the services the health centre provides is considered in this study. While respondents who feel satisfied with the services account for 61.4 percent, those who feel otherwise account for bothersome proportion (38.6%) (FMOH & UNFPA 2003). The question on the age of the respondents at the time of survey shows that 15-19 years registered 15%, followed by 20-29 with 55%, 30-34 category accounts for 20% and the last category 35 years and above accounts for the least proportion (10%). It is observed that low age at marriage exist in the study population, as large proportion of them (70%) married in their 20s. It is equally interesting to note that while over half of the respondents (55%) patronize non-modern facility, slightly three-fifths of them stated that their husbands do not perceive pregnancy as risky as such. This relates to the casual treatment given to pregnant women in the study area.

**8.1 Regression Analysis Results**

To butters the above findings regression analysis was carried out and the results are portrayed in Table 3.

**Research Question 3:** What are **t**he major demographic factors that determine maternal access to health-care services during pregnancy and child birth?

**Table 3: Regression Analysis**
**Modern Summary**

| Mode | R | R Square | Adjusted | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .991[a] | .982 | .980 | .10761 |

a. Predicators: (Constant), Respondent's education, Religion, Respondent's age, Distance to Health facility, Husband's occupation, Decision on where to go for treatment, who pays the treatment bills, Feeling of services, Husband's perception about pregnancy, Type of family, Perception of ANC cost.

**Coefficients [a]**

| Model | Unstandardized coefficients | | | Standardized coefficients | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| 1 (Constant) | 3.018 | .219 | | 13.805 | .000 |
| Religion | .00 | .024 | .003 | .173 | .863 |
| Types of family | -.009 | .012 | -.012 | -.755 | .452 |
| Husband's occupation | -.034 | .013 | -.045 | -2.644 | .0.10 |
| Educational attainment | .046 | .012 | .076 | 3.863 | .000 |
| Husband's perception about pregnancy | .063 | .021 | .058 | 3.053 | .003 |
| Perception of service | -1.243 | .057 | -.736 | -21.839 | .000 |
| Perception about ANC cost | .567 | .040 | .321 | 14.304 | .000 |
| Treatment decision | -.138 | .029 | -.101 | -4.767 | .000 |
| Distance to health facility | -.106 | .024 | -.101 | -4.367 | .000 |
| Who pays the treatment bills | .547 | .032 | .362 | 16.938 | .000 |
| Respondent's age | .107 | 0.028 | .066 | 3.817 | .000 |

**AVOVA [b]**

| Model | Sum of squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 60.840 | 11 | 5.531 | 477.614 | .000[a] |
| Residual | 1.123 | 97 | | | |
| Total | 61.963 | 108 | | | |

a. a. Predictors: (Constant), Respondent's education, Religion, Respondent's age, Distance to Health facility, Husband's occupation, Decision on where to go four treatment bills, Feeling of services, Husband's perception about pregnancy, Type of family, perception of ANC cost.

b. Predictors: (Constant), Respondent's education, Religion, Respondent's age, Distance to Health facility, Husband's occupation, Decision on where to go four treatment bills, Feeling of services, Husband's perception about pregnancy, Type of family, perception of ANC cost.

c. Dependent Variables: Preferred health facility.

Regression analysis shows that, type of family, husband's occupational status, perception of service; treatment decision and distance to health facility are negatively related to health programme usage by pregnant mothers in the study area. Educational attainments, payment of treatment bills, respondent's age, husband's perception about pregnancy and perception of ANC cost are positively associated to ANC use. This implies that the higher the level of mothers' education, the more likely it is that they will use health facility or attend ANC counseling. However, except, religion and type of family all other variables are significantly related to the preferred health facility. This result implies that variables relating to husband such as occupation, perception about cost of service, treatment decision and payment of treatment cost weigh more on the use of modern health care services. This could be true because in this region male dominance is culturally supported. Thus, whoever is in charge of both fund and decision is in control. Similarly, higher social status by way of better husband's occupation implies more income that can encourage the wife to seek for modern medical services (FMOH, 2005). Furthermore, since the F-statistics calculated is greater than the F-tabulated, the hypothesis that the socio-demographic characteristics of the respondents are significantly related to the health programme usage by pregnant mother is upheld.

**8.2 Summary of Findings**

A combination of both qualitative and quantitative data analyses in this study have yielded some vital results. These include:

- that low level and probably poor educational attainment of the respondents (women in rural areas) negatively influence their access to health-care facilities during pregnancy and child-birth.
- distance to the health-care facility, coupled with poor road network and inadequate transportation is a major factor retarding access to health-care services by pregnant women.
- the African culture of male domination and women's perpetual dependence on men both socially, economically, psychologically and morally grossly incapacitate women's ability to take care of themselves as the men have to give permission as to when and which a health-care facility is to be visited.
- poverty is another debilitating factor in women's low health-care programme usage, as they see antenatal care cost as expensive.
- a husband's occupation which principally determines the family's socio-economic status is another significant factor influencing women's health-care services during pregnancy.
- the age of a pregnant woman is a vital factor determining access to health-care facilities as younger women are prone to visit health-care clinics than their older counterparts.
- finally, women's perception about the type of services offered or available in a particular clinic/facility significantly affects their desire, decision and usage/choice of such facility. For instance, the availability of good/experienced doctor(s), nurses, ambulance service and referral facility.

**9. Policy Implications and Recommendations**

Maternal health utilization research is essential in actualizing MDGs of reducing maternal mortality by half by the year 2015. Thus, the following recommendations may go a long way in the quest for a lasting solution in the campaign to stem maternal mortality and accelerate the utilization of health facilities in Nigeria and other regions.

1. Costs alleviation policies for women seeking antenatal care and delivery services should be put in place to encourage women to patronize health services.
2. Restoration of the dignity of women through education and empowerment of prospective mothers. Generally, the use of maternal health care services increases positively with education. Both education and good occupation will bring women on board the decision-making realm including health care. In addition, education may increase and usher in late marriage which will reduce early pregnancy among women in the study area.
3. Efforts should be made to train the traditional birth attendants to refine their operations and lesson the havoc caused by them. This is necessary because the use of modern health services is often influenced by individual perception or feelings of the efficacy of the services. Similarly trained traditional birth attendants can complement the efforts of modern health givers where necessary.
4. Orientation should be conducted for health workers on how to uphold the ethics of the profession and on rudimentary principles of human relations to ensure better services.
5. Government should revitalize rural health operations and establish mid-way service delivery points (MSDPs) to reduce the problem of distance and further bring grass roots health care services closer to the rural population.
6. Counter part funding by stakeholders such as states and local government should be encouraged. This will help to scale up funds required for maternal and child health programme e.g. the cost of Community Based Health Insurance scheme (CBHI) aspect of National Health Insurance Scheme (WHS) should be reduced to benefit women on pregnancy and child bearing related issues/cases.
7. -The National health bill should be passed into law to provide necessary framework and philosophy for sustained health practices in general and maternal health in particular.
8. Awareness campaign and education on the relevance of primary health care aspect of National Health Policy should be promoted. This will help pregnant mothers who constitute important segment of the health population to be acquainted with methods of prevention of disease and ways of promoting good nutrition, maternal and child care, family planning etc.

**10. Conclusion**

Maternal mortality in developing countries continues to pose a serious public health problem and contributes to the low life expectancy in Nigeria. The study has identified several factors that influence utilization of maternal health services in the study area. These include the predictor variables such as education and occupation of mothers, distance to the health facility, and cost of antenatal care among others which are examined against the dependent variable-preferred health facility. Success in the scaling up of the utilization of health care services requires adequate and friendly services to boost confidence of the masses on modern health care services.

In addition, culturally appropriate health education especially on harmful traditional practices and benefits of safe motherhood should be employed as a short term measure. Socio-economic transformation and 'cultural revolution' should be effected for better health-care utilization among pregnant women. However, a more nationally representative sample survey study including urban and rural areas is needed to help examine extensively the socio-demographic and cultural factors limiting maternal utilization of health services in Nigeria for wider application of finings.

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