Original Research Article

Occupation and Income as Determinants of Uptake of Antenatal Care Services Among Pregnant Women in Olorunda Local Government Area, Oyo State

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Abstract

Antenatal care determines maternal and child death rate and is also one of the important aspects of maternal care which can adequately preserve the health of the mother and child if well taken. This study therefore examines Occupation and Income as Determinants of Uptake of Antenatal Care Services Among Pregnant Women in Olorunda Local Government Area, Oyo State. The objectives of the study were to examine occupation and income level as determinants of uptake of antenatal care services among pregnant women in Olorunda Local Government Area, Oyo State. Descriptive research design of the survey type was used for the study. Population for the study comprised all pregnant women in Olorunda Local Government Area, Oyo State. Proportionate and simple random sampling technique was used to select 406 respondents. A researcher designed a questionnaire which was validated and tested for reliability which yielded a coefficient of r = .88 through a split-half method using Cronbach-alpha. A researcher's designed questionnaire was administered and collected by the researcher with three trained research assistants. The inferential statistics of Anova was used to analyse the null hypotheses at 0.05 level of significance. The findings of the study revealed occupation with (calculated F. value = 0.446 > P.value = 0.640 degree of freedom =2, 497); level of income with (calculated F. value = 4.307 > P. value = 0.101 degree of freedom =2, 497). It was concluded from the study that farmer/artisans pregnant women uptake antenatal care services more than others in the occupation group and medium income level pregnant women uptake antenatal care services more than others in income level group. Based on the conclusion, the following recommendations were made: pregnant women, irrespective of their occupation should uptake antenatal care services by attending health talks and obey them to improve their lifestyle during pregnancy for easy delivery and support from NGOs and the state government would enable pregnant women who cannot afford antenatal care services uptake it as well.

Keywords: Antenatal care services, Occupation, Level of income and Pregnant women

INTRODUCTION

Antenatal care is an imperative determinant of maternal death rate and one of the important aspects of maternal care which the life of mothers and babies are subjected to. Antenatal care service is a type of preventive care services with the aim of providing consistent medical check-ups that permit health care workers to detect, treat

and prevent possible health complications all through the course of pregnancy while promoting healthy lifestyles beneficial to both mother and baby. Maternal and reproductive health services in health systems constitute a large range of curative and preventative health services of particular importance to the health of women of reproductive age. It also refers to population-based services such as behavior change and health communication. It includes a range of services provided to women of reproductive age prior to conception, during pregnancy, during and after delivery (Lule et al., 2010). Its importance particularly in developing countries cannot be overemphasized. For instance, antenatal care (ANC) helps to ensure the well-being of the mother and fetus through early detection of risks in pregnancy, prevention of pregnancy and labor complications and ensures the safe delivery of mother and child. Furthermore, it exposes pregnant women to counseling and education about their own health and the care of their children. With the strong positive association that has been shown to exist between level of care obtained during pregnancy and the use of safe delivery care, ANC services also stand to contribute indirectly to maternal mortality reduction (Babalola and Fatusi, 2009). Vast majority of women in Sub-Saharan Africa do not have access to safe delivery care (Boschi-Pinto et al., 2009).

Pregnant women enjoy these benefits when they attend antenatal care services and deliver in appropriate health facilities. In addition, pregnancy must be supervised by a trained health personnel and labor attended to by a skilled birth attendant (World Health Organization, 2012). Furthermore, the woman on her part is expected to book early and attend an adequate number of ANC prior to delivery. Although ANC attendance has been measured based on the proportion of women who have attended ANC at least once during pregnancy; World Health Organization (2010) recommends that pregnant women should attend ANC services at least 4 times starting from the first trimester. In Nigeria, the current ANC services schedule recommends that a pregnant woman should book for ANC during the first trimester, thereafter attend ANC clinic as follows; once in 4 weeks until 28 weeks gestation, once in 2 weeks until 36 weeks gestation and weekly until delivery. Evidence available suggests that most women who attend ANC in the country do not receive adequate attention and care providers are overwhelmed by the number of pregnant women seeking antenatal care services. Consequently, some advocates have argued for the adoption of focused ANC services, in which case a woman attends ANC 4 times during pregnancy at specific intervals as recommended by WHO. This allows for adequate attention to be given to each pregnant woman while high-risk pregnancies are better monitored.

Ejembi et al. (2014) affirmed that to reduce the maternal morbidity, mortality and improve neonatal health, the Nigerian government in time past had focused on improving access and supply of maternal health (MH) services through the primary health-care strategy. Despite these efforts, maternal morbidity and mortality remain a major public health problem in the country. Recently, the country rolled out the integrated maternal, newborn and child health (IMNCH) strategy as part of measures aimed at reducing maternal and infant mortality and the attainment of millennium development goals (MDGs) four and five. This was informed by the fact that significant progress has not been made toward reduction of maternal mortality and under-five deaths. Data from the National Health and Demographic Survey revealed that the Maternal Mortality ratio declined from 1100 deaths/100,000 live births in 1990-980 deaths/100,000 live births in 2000 and as at 2008 stood at 840 deaths/100,000 live births. (Federal Ministry of Health, 2011). Since 1990, the country has only achieved a yearly reduction of under-five mortality of 1.2%, a trend if allowed to continue may lead to non-attainment of MDGs four and five. A number of factors have been associated with utilization of MH services, among which are socio-demographic factors; age, religion, maternal education, husband's education, marital status, employment status and parity. Other factors that influence MH care service use include cost, availability of service, household income and access to health information exposure, previous history of obstetric complications, cultural beliefs and ideas about pregnancy (Babalola and Fatusi, 2009).Nigeria Demographic and Health Survey (2013) reported that recent estimates show that, the overall ante-natal care (ANC) coverage in Nigeria stood at 61% which is an abysmal three percentage points increase from 58% a decade ago; 36% of deliveries were delivered in a health facility while only 14% of newborns received postnatal care within two months of delivery. The ANC coverage of 61% falls short of the recommended 90% of ANC coverage required to reduce most deaths among mothers and their newborn (Lawn and Kerber, 2006). Additionally, this national average conceals major variations between rural and urban areas as well as between states and geopolitical zones within the country.

For instance, the rural and urban ANC coverage is 47% and 86% respectively; the North West zone has the least of 41% while the South East has the highest coverage of 91%. Institutional delivery show similar regional and rural/urban disparity where it is highest in urban areas (63%) than in rural areas (23%); highest in South West zone (76%) and lowest in North West (12%); the consequence of these differentials of coverage in ANC services is that maternal and child health mortality remains high (as well as other indicators of maternal and child health) at national level despite the co-existence of high national coverage in ANC (Nigeria Demographic Health Survey, 2013).

Furthermore, despite high coverage of ANC, Nigeria

still remains a major contributor of under-five mortality, contributing about 13%, 9.4% and 14% of global under-five, neonatal and maternal deaths respectively (You et al., 2013). Expectedly the maternal mortality, neonatal, post-neonatal, infant, child and under-5 mortality rates remain high at 576 maternal deaths per 100000 live births; 37, 31, 69, 64 and 128 per 1000 live births respectively. These figures show a reduction of between 20% and 31% in the past decade but not enough to achieve MDGs 4 and 5. In the continuum of maternal health care, antenatal care, institutional/skilled attendance at delivery and postnatal care are important milestones required to achieve optimum maternal and child health. These elements of care are expected to be provided as a continuum of care in order to impact optimum benefit and the provision of these elements of care in a comprehensive and continuum pattern of care during pregnancy, childbirth and postpartum period has been argued to reduce maternal and child (neonatal) death (Lawn and Kerber, 2006).

Additionally, an extended benefit of ANC services is that women who utilized ANC are more likely to utilize institutional/skilled delivery. Pervin et al. (2012) and Hatt et al. (2009) observed that the second element of care, institutional delivery/skilled attendance at delivery allows provision of intervention to detect risk around labour and childbirth during which interventions can maximally be provided by skilled medical personnel at health facilities. The third element of care, postnatal care has been argued that promoting the utilization of ANC services and institutional delivery/skilled attendance at delivery alone is not enough to improve maternal and child health and that postnatal care has to be provided to sustain the reduction in neonatal mortality (Singh et al., 2012). The objectives of this study are to: examine if occupation is a determinant of the uptake of antenatal care services among pregnant women; find out if level of income is a determinant of the uptake of antenatal care services among pregnant women. In spite of the need and availability of antenatal care services, it is poorly utilized by pregnant women which has led to high rates of maternal morbidity and mortality. In most Nigerian communities, pregnant women prefer to give birth at home and this comes with a lot of complications on the health of mothers and newborns. It is not uncommon to hear or find cases of maternal complications and subsequent death due to the ineffective utilization of ANC services by expectant mothers. Occupation of pregnant women determines how often antenatal care services are been utilized as those with busy work schedule hardly create time for the which result into complication during or after delivery, income many times affect a lot of pregnant women as women with little or no source of income find it difficult to transport themselves and even pay for the antenatal care services which is most times not free and has made many pregnant women who fails to go for the antenatal care services surfers from

pregnancy and delivery complications. The above problems prompted the researcher to investigates occupation and level of income as determinants of uptake of antenatal care services among pregnant women in Olorunda Local Government Area, Oyo State. Nigeria.

Research Hypotheses

The following hypotheses were tested in the study:
1. Occupation will not significantly determine the uptake of antenatal care services among pregnant women inOlorunda Local Government Area, Oyo State.
2. Level of income will not significantly determine the uptake of antenatal care services among pregnant women in Olorunda Local Government Area, Oyo State.

METHODS AND MATERIALS

A descriptive research design of survey type was used for the study. The population for this study comprised all pregnant women attending the Primary Health Care centers in Olorunda Local Government Area, Oyo State Nigeria. The population of the pregnant women is one thousand two hundred and twenty (1,220)(Department of Primary Health Care, Olorunda Local Government Area,2021-22). The sample of the study were four hundred and six (406) pregnant women selected through proportionate and simple random sampling techniques; only pregnant women met in the primary health care centers were given copies of the questionnaires to filled after seeking their consent with the ethical approval permit obtained to carry out the research. The research instrument adopted for this study was a researcher's developed structured questionnaire which was validated and reliability of the instruments was carried out by adopting a split-half method to determine the internal consistency, by which the questionnaire was pretested among thirty pregnant respondents who shared similar characteristics with the participants of this study. The result of the administration was analyzed using Cronbach-alpha and a correlation coefficient of 0.88r was obtained; this shows that the research instrument was reliable enough for the study.

The instrument was administered with the help of three trained research assistants. The training covered sampling procedures, contents of the questionnaire, how to interpret the items in the questionnaire, and how to get participants' informed consent.Ethical principles guiding the use of human participants in research was upheld throughout the conduct of this study. Participation in the study was made voluntary and informed consent was obtained from each participant in the study. All the information supplied by the research participants were made confidential, while also ensuring the privacy of the participants. The researcher ensures where possible that

Table 1. One-way ANOVA on occupation as a determinant of the uptake of antenatal care services among pregnant women

Descriptive

Items	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Civil servants	58	31.2931	5.28821	.69438	29.9026	32.6836
Business	252	31.6416	4.44730	.23909	31.1714	32.1119
Farmer/Artisans	**96**	**31.9896**	4.33710	.44265	31.1108	32.8684
Total	406	31.6680	4.52623	.20242	31.2703	32.0657

Anova

Model	Sum of squares	df	Mean Square	F	P-value
Between groups	18.320	2	9.160		
Within groups	10204.568	497	20.532	0.446	0.640
Total	10222.888	499			

completed copies of the questionnaire were collected back immediately to avoid loss of the instrument. Inferential statistics of Analysis of Variance (ANOVA) was used to analyse the hypotheses at 0.05level of significance using Statistical Package for Social SciencesVersion24.0.

RESULTS

Test of Hypotheses

Hypothesis 1: Occupation will not significantly determine the uptake of antenatal care services among pregnant women in Olorunda Local Government Area, Oyo State. Table 1

The mean difference is significant at the 0.05 level

The table above shows the result of the research hypothesis one which stated that there is no significant difference in the occupation and uptake of antenatal care services among pregnant women. A one-way ANOVA between groups analysis of variance was conducted to explore the impact of occupation group on antenatal care services. Participants were divided into three groups according to their occupation group that they belong to (Civil servants, Business Farmers/Artisans). There was a statistically significant difference at the $p < 0.640$ level in the occupation of pregnant women towards antenatal care services for the three occupation groups $F= (0.446)$.

Despite reaching statistical significance, the actual difference in mean scores between groups was quite small. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for occupation group Farmer/Artisans (M = 31.9896, SD = 4.33710) was significantly different from other occupation groups. Hence, this shows that farmer/artisans pregnant women uptake antenatal care services than others in the occupation group.

Hypothesis 2: Level of income will not significantly determine the uptake of antenatal care services among pregnant women in Olorunda Local Government Area, Oyo State. Table 2

The mean difference is significant at the 0.05 level

The table above shows the result of the research hypothesis two which there is no significant difference in the level of income and uptake of antenatal care services among pregnant women. A one-way ANOVA between groups analysis of variance was conducted to explore the impact of level of income group on antenatal care services. Participants were divided into three groups according to the level of income groups that they belong to (Low, Medium and High Income Levels). There was a statistically significant difference at the $p < 0.101$ level in the level of income of pregnant women towards antenatal care services for the three groups F= (4.307). Despite reaching statistical significance, the actual difference in

Table 2. One-way ANOVA on level of income as a determinant of the uptake of antenatal care services among pregnant women

Descriptive

Items	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Medium income	**120**	**10.7147**	1.06432	.08912	10.4076	10.7924
Low income	281	10.6000	1.05017	.06396	10.6080	10.8213
High income	5	9.8000	.44721	.31298	9.2447	10.3553
Total	406	10.6780	1.05287	.05362	10.5855	10.7705

Anova

Model	Sum of squares	Df	Mean Square	F	p-value
Between groups	5.089	2	2.544		
Within groups	548.069	497	1.103	4.307	0.101
Total	553.158	499			

mean scores between groups was quite small. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Medium income (M = 10.7147, SD = 1.06432) was significantly different from other levels of the income group. Hence, this shows that medium income level pregnant women uptake antenatal care services than others in the income level group.

DISCUSSION OF FINDINGS

The finding in hypothesis 1 revealed that occupation (farmer/artisans) of pregnant women uptake antenatal care services more than others in the occupation group. This finding is in view with the finding of Ajayi and Osakinle (2013) in the study carried out, that a larger proportion of pregnant women who were not working 50 (56.2%) and those who were unskilled workers 44 (41.5%) made their first antenatal visits at the first trimester compared to those who were skilled workers 68 (33.2%), chance was an unlikely explanation of the relationship between the type of occupation and whether or not the first antenatal visit was made in first trimester. Also, March of Dimes (2018) prenatal education is an important component of supporting healthy pregnancies. Prenatal education promotes the maintenance of healthy lifestyles during pregnancy, helping expectant mothers manage stress, support a healthy diet, avoid harmful chemicals and situations, recognize warning signs and symptoms that mean something may be wrong with their pregnancy, and prepare for labour and delivery.

The findings in hypothesis 2 revealed that middle income level pregnant women uptake antenatal care services than others in the income level group. This finding is in line with the finding carried out in Baglandesh by Rahman (2008) found out that an interesting interaction affects the favouring gainfully employed women among those living more than one-hour travel time from a health centre. Raising Children Network (2016) reported that having regular antenatal check-ups is an important part of staying healthy and making sure your baby is healthy. Regular checks during your pregnancy can assist in identifying and reducing risks to either you or your baby. Although you may be feeling well, it is still important to go to all your antenatal check-ups. The exact number of antenatal appointments and how often you have them will depend on your individual situation. According to Ewa et al. (2012), mothers with higher income tend to utilize facilities far away from their place of residence, and the possible reason is perceived quality of service as well as husband's preference of a particular facility.

CONCLUSIONS

Based on the finding of the study the following conclusions were drawn:
1. Farmer/artisans pregnant women uptake antenatal care services than others in the occupation group.
2. Medium income level pregnant women uptake antenatal care services than others in the income level group.

RECOMMENDATIONS

Based on the conclusion drawn the following recommendations were drawn:
1. Pregnant women, irrespective of their occupation, should uptake antenatal care services by attending health talks and obey them to improve their lifestyle during pregnancy for easy delivery.
2. Support from NGOs and the state government would enable pregnant women who can not afford antenatal care services to uptake it as well.

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