

# Birth Preparedness and Complication Readiness among Pregnant Women in Ekpo Abasi Primary Health Care Centre, Calabar South, Cross River State, Nigeria

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**Abstract:** - The main objective of the study is to assess birth preparedness and complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. Specifically, the study assesses the effect of regular antenatal visit and healthy nutrition on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross River State, Nigeria. Two hypotheses were raised based on the variables of the study and were stated in null form. Literature was reviewed according to each variable raised and the health belief model was adopted to guide the study. The survey research design was used for the study. The sample of the study comprised of one hundred and twenty pregnant women who were purposively selected from the Ekpo Abasi primary health centre in Calabar South. The instrument of data collection was the questionnaire. Data collected from the field was coded and analysed using the appropriate statistical tool at 0.05 confidence level. Out of the one hundred and twenty question distributed, one hundred and eighteen was return and used for the analysis. Results revealed that Regular antenatal visits have a statistical effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Centre, Calabar South, Cross river state, Nigeria and Healthy nutrition have a statistical effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. The study thereby recommends that pregnant women should be motivated and mobilized to utilized Antenatal Clinic for effective complication readiness; pregnant women should always deliver their children under skilled birth attendant amongst others.

**Keywords:** Birth preparedness, complication readiness, regular antenatal visits, healthy nutrition

## I. INTRODUCTION

Each day, for thousands of women and their families, the event of childbirth becomes a reason of unnecessary suffering due to acute obstetric complications and maternal deaths (Thaddeus & Maine, 1994). In 2015 there were an estimated 303,000 maternal deaths globally, the majority of

which occurred in sub-Saharan Africa (66%) followed by South Asia (22%) (Alkema, Chou, Hogan, Zhang, Moller & Gemmill, 2015) To meet the recently agreed upon Sustainable Development Goal (SDG) of achieving a global Maternal Mortality Rate of 70 requires that countries attain an annual rate of reduction in maternal mortality of 7.5% per year between 2016 and 2030.

The trend in maternal deaths has been a public health challenge worldwide, with a global maternal mortality ratio of 525 per 100,000 live births annually (Hogan, 2010). Accordingly, World Bank (2013) reported that, “a disproportionately high burden of these maternal deaths is borne by developing countries particularly in sub-Saharan African countries, with a maternal mortality ratio of 500–1,000 per 100,000 live births”. These deaths arise from pregnancy, childbirth or postpartum complications. According to World Health Organization (WHO, 2009), maternal deaths are thought to occur in developing countries due to delay in deciding to seek appropriate care, delay in reaching an appropriate health facility, and delay in receiving adequate emergency care once at a facility. These delays may be reduced if pregnant women and their families are prepared for birth and its complications. Birth preparedness and complication readiness strategy is therefore, very relevant in this regard. This strategy can reduce the number of women dying from complications due to such delays by making a birth plan that constitutes birth-preparedness and complication-readiness measures for pregnant women, their spouses and their families (McPherson, Khadka, Moore & Sharma, 2006).

Birth-preparedness and complication-readiness is a comprehensive package aimed at promoting timely access to skilled maternal and neonatal services. It is a safe motherhood strategy whose objective is to promote the timely use of skilled maternal and neonatal care during childbirth or obstetric emergencies by reducing delays at the first, second and third

levels (Maternal and Neonatal Health Program, 2007). It entails making plans prior to birth to ensure that a pregnant woman is prepared for normal birth and complications. The birth-preparedness package promotes active preparation and decision-making for delivery by pregnant women and their families. (McPherson, et al, 2006). Decision are made and documented on such issues as desired place for birth, the preferred skilled birth attendant, items required for birth, birth companion, getting a compatible blood donor and arranging in advance for transport. This stems from the fact that every pregnant woman faces risk of sudden and unpredictable life threatening complications that could end in death or injury to herself or to her baby. Barbara & Gomez, (2004)

Other elements of birth preparedness include knowledge of expected date of delivery, signs of labour, dangers signs, HIV testing, mobilizing financial and other resources to cater for services, arranging from someone to take care of the family during delivery. Importance of post-natal care, importance of exclusive breast feeding and contraception (Maternal and Neonatal Health Program 2003). In addition, a potential blood donor and a decision maker (in case of emergencies) need to be identified (Kaye, Mirembe, Azigy, Namuelema, 2003).

According to Rogo and Aloo (2011), approximately 15 percent of pregnant women develop life-threatening complications hence need for emergency obstetric care. These complications are unpredictable and may progress rapidly to a fatal outcome. Knowledge of danger signs of obstetric emergencies and appreciation of the need for rapid and appropriate response when emergencies occur may reduce delay in decision making and in reaching health facilities. Such signs in pregnancy are vaginal bleeding, severe headache, severe vomiting, swelling of hands and face, difficulty in breathing, fits, fever, reduction or absent foetal movement and drainage of liquor (WHO, 2009). Therefore, this package is a very important strategy in developing countries, where obstetric services are poor. Birth plan should be discussed on the first clinic visit, reviewed in subsequent visits and finalized by 32 weeks (Barbara & Gomez, 2007).

By WHO's standard, one of the key roles of antenatal care is to provide health education on danger signs of pregnancy and delivery, preparation of a birth plan and to encourage delivery under a skilled attendant. WHO (2009) now recommends that pregnant women should receive focused antenatal care in which birth preparedness and complication readiness is a key component (WHO, 2009), Ministry of Health, Kenya, (2002). In order to address this disturbing trend, the International Conference on Population and Development (ICPD) urged that special efforts should be made to emphasize men's shared responsibility and promote their active involvement in maternity care Barbara & Gomez, (2004). In spite of this, pregnancy and childbirth continue to be regarded as exclusively women's affairs in most African countries, especially in the rural settings (Mullick, Kunene, & Wanjiru, 2005). This study is set to examined birth

preparedness and complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.

#### *Statement of the problem*

In September, 2015, the launching of the Sustainable Development Goals (SDGs) or Global Goals replaced the Millennium Development Goals (MDGs). The intention however was that the SDGs was created to complete the job that the MDGs started, and leave no one behind. In sub-Saharan Africa, pregnancy and childbirth continues to be viewed as solely women's issues. Knowledge of danger signs in pregnancy, access to emergency services during childbirth, availability of transport services during child birth and male companion at antenatal care is rare and in many rural communities, it is unthinkable to find male companions accompany a woman to the labour room during delivery (Babalola & Fatusi, 2009). This posture of men towards birth preparedness and complication readiness depicts lack of knowledge of their role in pregnancy and child birth. Yet, men have social and economic power, especially in Africa including Cross River State. They also, have tremendous control over their partners, so they decide the timing and conditions of sexual relations, family size and whether their spouse will utilize available health care services (Iliyasu, 2010). This situation makes male partner involvement critical if improvement in maternal health and reduction of maternal morbidity and mortality is to be realized. His engagement in maternity care seems to be lacking in developing countries especially rural communities. Male involvements will enable men to support their spouses to utilize emergency obstetric services early and the couple would adequately prepare for birth and get themselves ready for complications. This does not seem to be the case in developing countries including Nigeria and Cross River State. Birth preparedness and complication readiness is an issue that concerns both male and female (pregnant women) for better outcome of pregnancy and delivery, but it seems to be viewed as women's responsibility. This poses a big problem. There is therefore the need to assess the knowledge, practice and factors that influence birth preparedness and complication readiness among pregnant women in selected rural communities in Cross River State since there are documented evidence that maternal mortality is higher in rural communities than in the urban settings (WHO, 2004).

#### *Objective of the study*

The main objective of the study is to assess birth preparedness and complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. Specifically, the study;

- i. assess the effect of regular antenatal visit on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.
- ii. Assess the effect of healthy nutrition on complication

readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.

#### *Statement of the hypotheses*

- i. Regular antenatal visits have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.
- ii. Healthy nutrition have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.

#### *Scope of the study*

The main scope of the study is an assessment of birth preparedness on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. the study is aimed at assessing birth preparedness variables such regular antenatal visits and healthy nutrition and their effect on complication readiness. The institutional scope of the study is Ekpo Abasi Primary Health Care Center. The geographical scope is Calabar, Cross River state, Nigeria. the time scope is one month.

## II. LITERATURE REVIEW

### *Birth preparedness and complication readiness*

Extant literature over the years has assessed the relationship between birth preparedness and complication readiness. In Bangladesh, Moinuddin, Christou, Hoque, Tahsina, Salam, Billah, (2017) examined “birth preparedness and complication readiness (BPCR) among pregnant women in hard-to-reach areas”. The authors objectively identify determinants of being better prepared for birth, and assess the impact of greater birth preparedness on maternal and neonatal health practices. A cross-sectional survey with 2,897 recently delivered women was undertaken in 2012 as part of an evaluation trial done in five hard-to-reach districts in rural Bangladesh. Mothers were considered well prepared for birth if they adopted two or more of the four birth preparedness components. Descriptive statistics and multivariable logistic regression were used for analysis. Results revealed that “less than a quarter (24.5%) women was considered well prepared for birth”. The study concluded that “the predictors of being well-prepared included: husband’s education, district of residence, exposure to media in the form of reading a newspaper, receiving home visit by a health worker during pregnancy, and receiving at least 3 antenatal care visits from a qualified provider. Well-prepared women were more likely to deliver at a health facility, use a skilled birth attendant, practice clean cord care, receive post-natal care from a trained provider within two days of birth for themselves or their newborn, and seek care for delivery complications”.

More so, Bishaw, Awoke and Teshome (2014)

assessed “birth preparedness and complication readiness and associated factors among pregnant women in Basoliben district, East Gojjam Zone, Amhara Regional State, Ethiopia in 2013”. A community based cross sectional study was conducted on a sample of 546 pregnant women in 2013. Data was collected using pre-tested structured questionnaire which was adapted from other similar studies. Bivariate analyses was done to identify factors associated with birth preparedness and complication readiness and those found significant ( $p$ -value  $\leq 0.2$ ) were entered in the multivariate logistic regression analysis. The results was presented in frequency table, odds ratio (OR) and 95% confidence interval (CI).

Again, in Ethiopia, Markos and Bogale (2014) study assessed “birth preparedness and complication readiness among women of child bearing age group in Goba Woreda, Oromia region”. A community based cross sectional study was conducted in Goba woreda, Oromia region, Ethiopia. Multistage sampling was employed. Descriptive, binary and multiple logistic regression analyses were conducted. Statistically significant tests were declared at a level of significance of  $P$  value  $< 0.05$ . Only 29.9% of the respondents were prepared for birth and its complications. And, only 82 (14.6%) study participants were knowledgeable about birth preparedness and complication readiness. Variables having statistically significant association with birth preparedness and complication readiness of women were attending up to primary education, attending up to secondary and higher level of education, the presence of antenatal care follow up, knowledge about key danger signs during pregnancy, and knowledge about key danger signs during the postpartum period.

In Nigeria, a cross-sectional study was carried out by Sabageh, Adeoye, Adeomi, Sabageh, and Adejimi (2017) to assess “birth preparedness and complication readiness among pregnant women in Osogbo Metropolis”. 180 women were selected using multistage sampling technique. Obstetric history, knowledge of the danger signs of pregnancy and level of birth preparedness of respondents were retrieved via a pretested semi-structured interviewer administered questionnaires. Findings revealed that “a total of 51.1% were carrying their 2<sup>nd</sup> or 3<sup>rd</sup> pregnancies, 70.8% were aware of danger signs in pregnancy and the commonest danger sign mentioned was bleeding per vagina, 82.1% were well prepared for birth. Furthermore, the predictor factor revealed that being in the younger age group ( $p = 0.026$ ), being more educated ( $p < 0.0001$ ) and being aware of danger signs in pregnancy ( $p < 0.0001$ ) was more significantly associated with being well prepared.

### *Regular antenatal visits and complication readiness*

The benefits of antenatal care have been exhaustively discussed by several authors. Onwuhafua, Ozed, Kolawole and Adze (2016) assessed the effect of frequency of antenatal visits on pregnancy outcome. The study examined 228 pregnant women attending the antenatal clinic of the Ahmadu Bello University Teaching Hospital, Zaria, Nigeria, over a 3-

month period. Maternal and foetal outcome were compared against the frequency of antenatal visits. The mean frequency of visits was 6.77. Majority of the women 124 (54.4%) attended less than seven times. Compliance with antenatal drugs and mean haemoglobin level at delivery increased with increasing frequency of visits reaching 93.7% and 11.44 g/dl, respectively, in the moderate attendees (4–6 visits). Prevalence of anaemia was high (56.7%) among the unbooked but lowest (9.5%) with moderate attendees. Thereafter, there was no significant improvement. Delivery mode, malaria parasitemia, and gestational age at delivery were fairly uniform in all the groups. The prevalence of low birth weight was 20% in the unregistered and decreased from 22% in the low frequency (1–3 visits) group, to 4.8% in the moderate attendees, and to 0% in the very high-frequency (ten and above visits) group. Mean Apgar scores at 1 and 5 min were also best (7.1/8.1) in the moderate attendees and worst in the unregistered. More than six visits conferred no significant advantage on fetomaternal outcome.

El-Sayed Azzaz, Martínez-Maestre, and Torrejón-Cardoso. (2016) study examined Antenatal care visits during pregnancy and their effect on maternal and foetal outcomes in pre-eclamptic patients. This study included 150 pregnant women with pre-eclampsia who attended the Outpatient Clinic of the Obstetrics and Gynecology Department, Ismailia General Hospital. The women were interviewed and their antenatal care visits recorded. Blood pressure control, cardiotocography, ultrasonographic and Doppler evaluations and the administration of methyldopa were recorded. The study calculated the distribution of women who attended an adequate versus an inadequate number of antenatal care visits, examined the characteristics of the groups using significance tests, computed the risk of poor maternal and foetal outcomes and created regression analysis models. The study calculated the incidence rate of poor maternal and foetal outcomes, odds ratios and 95% confidence intervals. Results revealed that Women who attended an inadequate number of antenatal care visits had a significantly higher risk of post-partum haemorrhage, eclampsia, and intensive care unit admission compared with women who attended an adequate number of visits. Women who attended an inadequate number of visits had a 12-fold risk of a poor maternal outcome, a 53-fold risk of a poor foetal outcome and a significantly higher risk of neonatal mortality in comparison to women who attended an adequate number of antenatal visits.

Tuladhar and Dhakal (2011) study identify the determinants of antenatal care (ANC) attendance and its impact on maternal/perinatal outcome. Prospective descriptive study of women delivered at Nepal Medical College Teaching Hospital (NMCTH), a 700 bedded tertiary care hospital situated at periphery of Kathmandu. Among 322 women delivered during period of four months, majority (87%) reported of attending more than 4 antenatal visits, only 21 (6.5%) women had not attended ANC. The most preferred

place of ANC was hospital (71.6%). Women with secondary education and above, business/service holders, 20-29 years age group, primigravida and Brahmin likely to attend. Financial problem (52.4%) followed by ignorance (28.6%) were the most commonly stated reasons for not attending ANC. Women attending more than 4 antenatal visits have more chance of full immunization with tetanus toxoid and iron supplementation. Most of the women started attending ANC from their second trimester (75.8%), women who had attended ANC, because of the fact that all elective caesarean section were planned in these women only. Also, all inductions of labour (9.3%) were performed among them. Maternal complications like anaemia and pregnancy induced hypertension occurred more commonly in women without ANC. The proportion of low birth weight and preterm babies was higher in women with inadequate or no ANC. Special care baby unit (SCBU) admission was also higher among them due to various reasons like neonatal sepsis, birth asphyxia, jaundice etc. While there were no neonatal deaths during the study period, 3 still births have occurred. Perinatal mortality rate was similar in no ANC and inadequate ANC groups; it was 16 times higher than that in the group with more than 4 visits. Maternal and perinatal outcomes were found to be better in women who attended regular ANC.

Young, Trotman, and Thame, (2007) investigate pregnancy performance and newborn outcome between adolescents and older women receiving adequate and similar antenatal care. Four hundred and twenty-five women attending the antenatal clinic at the University Hospital of the West Indies, Kingston, Jamaica, participated in a prospective study. Recruitment included women 19 years and younger (adolescents) and 20 years and older (older women). Anthropometric measurements of the women and their newborn were made. During the pregnancy, all admissions to hospital and the diagnoses were recorded. Neonatal admissions were also recorded. Result revealed that showed that with similar and adequate antenatal care there were minimal differences in pregnancy performance between the two groups with only an increased rate of urinary tract infections and a lower rate of Caesarean section in the adolescents.

#### *Healthy nutritional and complication readiness*

Plethora of studies have indicated that health behaviours such as dietary impacts both mother & fetus health (Ye, Skjaerven, Basso, Baird, Eggesbo, and Cupul Uicab, 2010). Abu-Saad and Fraser (2010) focus on the nutrients that have been most commonly investigated in association with birth outcomes. Data sourcing and extraction included searches of the primary resources establishing maternal nutrient requirements during pregnancy (e.g., Dietary Reference Intakes), and searches of Medline for “maternal nutrition”[specific nutrient of interest] and “birth/pregnancy outcomes,” focusing mainly on the less extensively reviewed evidence from observational studies of maternal dietary intake and birth outcomes. The authors used a conceptual framework

which took both primary and secondary factors (e.g., baseline maternal nutritional status, socioeconomic status of the study populations, timing and methods of assessing maternal nutritional variables) into account when interpreting study findings. The authors conclude that maternal nutrition is a modifiable risk factor of public health importance that can be integrated into efforts to prevent adverse birth outcomes, particularly among economically developing/low-income populations.

Fateme, Mohseni, Ghajarzadeh and Shariat (2013) evaluate the importance of observing healthy habits by pregnant women that influences different aspects of mother and foetus health, we assessed the change in dietary behaviour, and cigarette smoking after distributing the guidelines among 485 prenatal care patients. The subjects were pregnant women who enrolled in health care centers of Tehran University from September, 18, 2010 to July 21, 2012. At first the standard questionnaires including questions about socio demographic factors and also their dietary behaviour, and cigarette smoking were filled out. Then we gave them the guideline. After 2 months the participants received the similar questionnaires. The change in their behaviour was evaluated comparing the 2 series of questionnaires by SPSS-16 analysis methods. Totally 1.9% of participants met fruit & vegetable guidelines before education & 5.6% after that (3.7% rise) ( $p < 0.0001$ ). In studied group 99% met cigarette smoking guidelines before & 100% after education. There was a meaningful association between the amount of fruit & vegetables consumption before and after pregnancy ( $p < 0.0001$ ).

#### *Theoretical framework*

This study adopts the health belief model by Rosenstock (1966). The Core assumptions are based on the understanding that a person will take a health related action if that person feels that a negative health condition can be avoided; has a positive expectation that by taking a recommendation action, he or she will avoid a negative health condition. HBM was spelt out in terms of four constructs, namely; perceived susceptibility; perceived benefits, perceived severity and perceived barriers. The Health Belief Model proposes that people will respond best to messages about health promotion or disease prevention when the following four conditions for change exist:

- i. The person believes that he or she is at risk of developing a specific condition.
- ii. The person believes that the risk is serious and the consequences of developing the condition are undesirable.
- iii. The person believes that the risk will be reduced by a specific behaviour change.
- iv. The person believes that barriers to the behaviour change can be overcome and managed.

Some constructions of the model feature the concept of self-efficacy (Bandura, 1997) alongside these beliefs about

actions. These beliefs are further supplemented by additional stimuli referred to as 'cues to action' which trigger actual adoption of behaviour. Perceived threat is at the core of the health belief model as it is linked to a person's 'readiness' to take action. It consists of two sets of beliefs about an individual's perceived susceptibility or vulnerability to a particular threat and the seriousness of the expected consequences that may result from it. The perceived benefits associated with a behaviour, that is its likely effectiveness in reducing the threat, are weighed against the perceived costs of and negative consequences that may result from it (perceived barriers), such as the side effects of treatment, to establish the overall extent to which a behaviour is beneficial. The individual's perceived capacity to adopt the behaviour (their self-efficacy) is a further key component of the model.

In applying this model to this study, an expectant mother will take an action if she knows that certain behaviours will cause complication when it is time for her to deliver.

### III. METHODOLOGY

#### *Research design*

This study adopted the survey method research for collecting data. Survey method is one of the most important areas of measurement in social researcher. Ndiyo (2005) asserted that survey method involves the collection of data to accurately and objectively describe existing phenomenon. Studies that make use of this approach are employed to obtain a picture of the present condition of a particular phenomenon. Survey method depends basically on questionnaire and interview as means of data collection. Thus, this method is considered appropriate to be used to assess birth preparedness and complication readiness among pregnant women in School Health Clinic, Mayne Avenue Calabar South Local Government Area.

#### *Study area*

This study was conducted in Calabar South Local Government Area of Cross River State with its headquarters at Anantigha. A southern senatorial district which was created from the former. Calabar Municipality Government is made up of 12 wards each represented by a councilors and headed by a Chairman who serves as a Chief Executive of the Local Government. Calabar South is one of the 18 Local Government Areas with area of 264km<sup>2</sup> and a population of 191, 630 (National Population Commission, 2006). The inhabitants of Calabar South Area are predominantly Efiks and Efuts but a mixture of other ethnic groups like Ibibio, Annang etc make up a substantial minority. The two dominant ethnic groups of the Efiks and Efuts share common culture and religion.

#### **Population of the study**

The population of this study involves pregnant women who attend Antenatal Clinic at Ekpo Abasi Primary Health Care Clinic, Calabar South. The reason for choosing

this clinic is because they carry out comprehensive Primary Health Care which also include maternal and child health. Thus, the clinic was better position to supply the necessary information for this study. According to the data gathered provided by the primary Health Centre. A total of 372 women are registered for antenatal care at the centre. It is from this number that the sample for data collection will be drawn from.

#### *Sample and sampling technique*

The sample size for this study is one hundred and twenty (120) pregnant women selected using the purposive sampling technique. The researcher purposively selected 120 pregnant women who visit the primary health centre for three days. This was done because of the time frame of the study and because of the type of study.

#### *Instrument of data collection*

The instrument used in generating data for this study was questionnaire. The research instrument consisted of two sections (A and B). Section A consisted of items designed to elicit respondents' data on their personal demography, while section B of the research instrument consisted of items designed based on the subject of the study. It was measured on 4-point Likert type scale such as "SA" for Strongly Agreed, "A" Agreed "D" Disagreed and "SD" for Strongly Disagreed".

#### *Method of data analysis*

Data collected from the field were checked to make sure that all the questionnaires are attended to. The responses were coded and analysed using the necessary and appropriate statistical tool like Frequency distribution, simple percentages, and Pearson product moment correlation coefficient. The analyses were presented hypothesis by hypothesis; testing done at 0.05 confidence level.

## IV. RESULT

Out of the 120 administered questionnaires for this study, only 118 respondents returned questionnaires were properly filled without missing values or mutilation, therefore the said number was used for the data analysis. As presented in Table 1, out of the 118 respondents used in this study, 64 (54.2%) were 26 - 35 years; 26 (22.0%) were 36 - 45 years; 21 (17.8%) were 25 years and below while only 7 (5.9%) were 46 years and above. Also, Distribution of respondents based on marital status reveal that, most of the respondents 105 (92 %) were married while 13 (8%) were single. The distribution of respondents based on educational status shows that, most of the respondents 108 (91.5%) have completed higher education; 5 (4.2%) each had completed primary school education and secondary school education respectively. The distribution of respondents' based on religion shows that, more than half of the respondents' 106 (89.8%) were Christians; 10 (8.4%) claimed were Muslim while 2 (1.7%) claimed were African traditionalist. This result was expected because the study area is predominantly by Christians.

TABLE 1.  
Demographic data

Variable	Category	N	Percent (%)
Age of respondents	Below 25 years	21	17.8
	26-35 years	64	54.2
	36-45 years	26	22.0
	46 years and above	7	5.9
	Total	118	100.0
Marital status	Single	105	92
	Married	13	8
	Total	118	100.0
Educational status	Completed primary education	5	4.2
	completed secondary education	5	4.2
	completed tertiary education	108	91.5
	Total	118	100
Religion	Christianity	106	89.3
	Muslim	10	8.4
	ATR	2	1.7
	Total	118	100

Source: Field survey, 2018

#### *Test of hypotheses*

##### *Hypothesis one*

Regular antenatal visits have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. The independent variable in this hypothesis is regular antenatal visits while the dependent variable is complication readiness. Pearson product moment correlation coefficient was used to test this hypothesis at 0.05 level of significance.

**Table 2:**

Pearson product moment correlation of regular antenatal visits and complication readiness

Variable	N	Mean	SD	r-value	Sig.
Regular Antenatal Visits	118	18.63	2.96	0.334**	.000
Complication Readiness	118	18.96	2.05		

\*significant at 0.05 level; df = 116 critical r value = 0.098

Source: Field survey, 2018

The result in Table 2 revealed that the calculated r – value of 0.334\*\* is greater than the critical r-value of 0.098 at 0.05 level of significance with 116 degrees of freedom. By this result, the null hypothesis which states that Regular antenatal visits have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care

Center, Calabar South, Cross river state, Nigeria is rejected while the alternate hypothesis is accepted. Therefore, we can conclude that Regular antenatal visits have a statistical effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.

#### *Hypothesis Two*

Healthy nutrition have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. The independent variable in this hypothesis is Healthy nutrition while the dependent variable is complication readiness. Pearson product moment correlation coefficient was used to test this hypothesis at 0.05 level of significance and the result is presented in table 3.

Table 3:

Pearson product moment correlation of social workers counselling role and prevention of relapse					
Variable	N	Mean	SD	r-value	Sig.
Social Workers Counselling Role	118	19.40	2.85		
Prevention of relapse	118	18.96	2.05	0.584**	.000

\*significant at 0.05 level; df = 116 critical r value = 0.098

Source: Field survey, 2018

Result in Table 3 revealed that the calculated r – value of 0.584\*\* is greater than the critical r-value of 0.098 at 0.05 level of significance with 116 degrees of freedom. By this result, the null hypothesis which states that, Healthy nutrition have no effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria is rejected while the alternate hypothesis is accepted. we can conclude that, Healthy nutrition have a statistical effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria.

## V. DISCUSSION

### *Regular Antenatal visits and Complication readiness*

The result from the first hypothesis revealed that Regular antenatal visits have a statistical effect on complication readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. The result implies that regular visits by pregnant women prepares them for birth and helps to avoid birth complication. This result is in line with that of Onwuhafua, Ozed, Kolawole and Adze (2016), El-Sayed Azzaz, Martínez-Maestre, and Torrejón-Cardoso. (2016) and that of Tuladhar and Dhakal (2011).

### *Healthy nutrition and Complication readiness*

The result from the second hypothesis revealed that Healthy nutrition have a statistical effect on complication

readiness among pregnant women in Ekpo Abasi Primary Health Care Center, Calabar South, Cross river state, Nigeria. this result implies that healthy nutrition helps in complication readiness of pregnant women. The result also revealed that when pregnant women live healthy, they are more likely to avoid complications during pregnancy. These findings are in line with the findings of Abu-Saad and Fraser (2010) and Fateme, Mohseni, Ghajarzadeh and Shariat (2013)

## VI. CONCLUSION AND RECOMMENDATIONS

The study concludes that link exists between birth preparedness and complication readiness among pregnant women in Ekpo Abasi Primary Health Care Centre, Government Technical College, Calabar South Local Government Area. Based on the findings the following recommendations are made for the identified problems.

1. Pregnant women should be motivated and mobilized to utilized Antenatal Clinic for effective complication readiness.
2. There is also a need to improve transportation facilities suitable for pregnant women at rural communities. This will significantly improve outcomes especially when emergencies occur and the need for referral arise.
3. Non-Governmental Organizations (NGOs) and Faith-Based Organization (FBOS) should focus on improving access to cheaper medical services for majority of low income earners in rural and urban communities.
4. Government and Health Workers should create awareness on the danger signs following pregnancy and childbirth to annual complication.
5. Pregnant women should always deliver their children under skilled birth attendant.
6. With the awareness of Birth Preparedness and Complication Readiness the three delays should be avoided from the angle of the pregnant women and the angle of skilled health worker.

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