

Awareness, Practice and Factors Influencing Birth Preparedness and Complication Readiness Among Women Attending Antenatal Clinic at University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria

¹Mathias Agba, ²Tangban Edum, ³Agnes Effiong and ⁴Agba, Mathias Affiong

RN, B.N.Sc, M.Sc, Department of Nursing Science, University of Calabar, Cross River State, Calabar

RN, RM, B.Sc, M.Sc Department of Nursing Science, Arthur Jarvis University, Cross River State, Calabar

RN, RM, B.N.Sc University of Calabar Teaching Hospital, Cross River State, Calabar

RN, RM, B.N.Sc, 305 Mobility Group, Nigeria Airforce Medical Centre Calabar, Cross River State

doi: <https://doi.org/10.37745/ijeahii.15/vol9n12230>

Published November 19 2023

Citation: Agba M., Edum T., Effiong A. and Agba, M.A. (2024) Awareness, Practice and Factors Influencing Birth Preparedness and Complication Readiness Among Women Attending Antenatal Clinic at University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria, *International Journal of Ebola, AIDS, HIV and Infectious Diseases and Immunity* 9,(1) 22-30

ABSTRACT: *Birth preparedness and complication readiness (BPCR) is a process of planning for normal birth and anticipating the actions needed in case of emergency. This study assessed awareness, practice and factors influencing birth preparedness and complication readiness among women attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria. The Specific objective were to assessed the level of awareness of birth preparedness and complication readiness, determined the practice of birth preparedness and complication readiness, and identified the factors affecting birth preparedness and complication practice among women attending antenatal clinic at UCTH, Calabar, Cross River State, Nigeria. Three (3) research questions and one hypothesis were formulated to guide the study. The research design employed for the study is cross-sectional descriptive survey design. The sample of the study comprised two hundred and thirty-eight (238) pregnant women attending antenatal clinic at UCTH, Calabar. The sample was selected using simple random sampling technique. The instrument of data collection was a structured questionnaire. Data collected were analyzed using descriptive charts, frequencies, tables and percentages. The hypothesis was tested for significance at 0.05 level, using Chi-square (X^2) analysis. The findings of the study revealed that large proportion (73.5%) respondents have high level*

Publication of the European Centre for Research Training and Development -UK
awareness of birth preparedness and complication readiness, while (26.5%) have low awareness. Majority (50.4%) of the respondents have high level practice, 39.1% have moderate practice, while 10.5% respondents have low practice. The factors affecting birth preparedness and complication readiness among women attending antenatal clinic at UCTH, Calabar include: distance to health facility, lack of adequate support/assistance from family members, relative and friends, lack of financial support from my husbands, lack of awareness of the components of birth preparedness and complication readiness and poor inter-personal relationship between midwives and pregnant women. There is a significant relationship between the level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar. Based on the results, the researcher recommends that health policy makers, hospital managements and nurse leaders should organize regular mass orientation and sensitization programs for couples on the importance of birth preparedness and complication readiness. This will help to educate and increase awareness of the practice, as well as motivate couples to always practice it.

Keywords: awareness, practice, factors, birth preparedness, complication readiness

INTRODUCTION

Birth preparedness and complication readiness (BPCR) is a process of planning for normal birth and anticipating the actions needed in case of emergency. Birth preparedness involves a collaborative efforts between the couple, family and healthcare professionals to have a successful antepartum, intrapartum and postpartum period. Birth preparedness is a strategy to promote the timely use of skilled birth attendant during childbirth, identifying the location of the closest appropriate care facility, setting out funds for birth related and emergency expenses, transport to a health facility for the birth and obstetric emergency and identification of compatible blood donors in case of emergency (Gupta & Malhotra, 2014). Couple who makes the decision to seek care before the onset of pregnancy and they successfully follow through with birth plan, the woman will reach care before developing any potential complications during childbirth (Botha, Maluula, Pindani & Buttemeier, 2013). Complication readiness raises awareness of danger signs during pregnancy and childbirth, these include vaginal bleeding, blurred vision, swollen hands/face, severe headache, absent of fetal movement, prolong labour, retained placenta (Kaso & Addisse, 2014).

Pregnancy and childbirth is often associated with unpredictable life-threatening obstetric complications that lead to maternal and neonatal morbidity and mortality, especially in low-income countries. The causes of maternal morbidity and mortality may be analyzed using the three-delay model; delay in seeking care, delay in reaching care, and delay in receiving adequate care when reaching a health facility (WHO, 2015). This is based on the assumption that the knowledge of danger signs and preparedness for addressing obstetric complications ensures that predictable elements of these delay can be anticipated, identified in time and addressed promptly as they arise. Failure to

Publication of the European Centre for Research Training and Development -UK

recognize signs of complications or perceive the severity of illness will cause delay in seeking care, could also be due to cost considerations or previous negative experiences with the healthcare system. Delays in reaching care may be caused by the long distances to a health facility, poor condition of roads and absence or unaffordability of emergency transportation. Delays in receiving care may result from negative attitudes of healthcare providers, shortages of supplies and basic equipment, a lack of healthcare personnel and poor skills attendance (Abdella, 2014). These delays should be addressed at individual level, family level, community level, health providers, health facility and policy makers' level to ensure women and newborns receive appropriate, effective and timely care (Wang, Alva, Wang & Fort, 2011). The principle and practice of BPCR in a third world setting where there is prevailing illiteracy, inefficient infrastructure, poor transport system and unpredictable access to skilled care provider have the potential of reducing the birth preparedness and complication readiness. The role of healthcare professionals is to educate couples attending ante-natal care about the importance of BPCR, the elements of BPCR and the danger signs during pregnancy and childbirth as well as anticipate factors that may cause any of the delays, develop a birth plan with the couple, it is therefore the interest of the researcher to assess the awareness, practices and factors influencing birth preparedness and complication readiness among couple attending antenatal clinic in UCTH, Calabar.

Statement of problem

Pregnancy and childbirth are normal physiological events and the desire of any family at the end is to have a healthy mother and a healthy baby. Inadequate or lack of birth and emergency preparedness is one of the several factors contributing to maternal deaths. In University of Calabar Teaching Hospital, birth preparedness and complication readiness is an important component of antenatal care, but maternal and neonatal mortality seem to be still high, as most couples delay in deciding when to seek help and delay in reaching the health facility, due to economic and socio-cultural factors leading to preventable mother and child death and most times result to more severe obstetric emergency with high cost. Therefore, this study seeks to assess the awareness, practice and factors influencing birth preparedness and complication readiness among couples attending antenatal clinic in University of Calabar Teaching Hospital.

Objectives

The purpose of this study is to assess the level of awareness, practice and factors influencing birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar. The specific objectives are as follows:

1. To assess the level of awareness of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar.
2. To determine the practice of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar.

3. To ascertain the factors affecting birth preparedness and complication practice among couples attending antenatal clinic at UCTH, Calabar.

Hypothesis

There is no significant relationship between the level of awareness and practice of birth preparedness and complication readiness among women attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar.

LITERATURE REVIEW

Conceptual Review

Birth preparedness and complication readiness (BPCR) is a set of knowledge, behaviours and actions undertaken by women, families, communities, healthcare providers and facilities to enhance the survival of women and newborn during pregnancy, childbirth and in the postpartum period. It is the advanced planning and preparation for delivery in order to improve maternal health outcomes (Hailu&Berhe, 2013). In higher resource countries, the focus is mainly on the woman's psychological and physical comfort (birth plan) while those in lower resource countries emphasize on measure to ensure a birth with appropriate attendant and preparation for emergencies (WHO, 2015). Practice of birth preparedness involves not only the pregnant woman but also her husband, family, community and available health workers. The support and involvement of these persons can be critical in ensuring that a woman can adequately prepare for delivery and carry out a birth plan (Abdella, 2014).

Ekabua, Odusolu, Agan, Iklaki & Etokidem (2011) documented that BP/CR is a process of planning for normal birth and anticipating the actions needed in case of an emergency. It is a shared responsibility across all safe motherhood stakeholders, policy makers, facility managers, providers, communities, families and women. Their co-ordinated efforts will reduce the delays that contribute to maternal and neonatal mortality. Nanjala & Wamalula (2012) added that BPCR is a comprehensive package aimed at promoting timely access to maternal and neonatal services. It is one of the strategies of safe motherhood whose objective is to promote mother and child care during pregnancy and delivery or obstetric emergencies by reducing delay in deciding to seek care.

Empirical Review

Ohamaeme, Egwurugulu, Dike and Chinko (2017) assessed birth preparedness and complication readiness among pregnant women in Orlu Local Government Area in Imo State, Nigeria. A cross sectional descriptive study was conducted among 210 pregnant women, data was collected using structured questionnaire and data was analyzed using chi-square. Findings revealed that 80% (170) of the respondents were aware of danger signs in pregnancy, only 33.3% arranged for blood donor, 175(83%) identified a skilled provider, 178(84.8%) prepared items for birth, 162(77%) women were prepared for birth and complication. Ekabua et al., (2011) assessed knowledge and factors influencing

Publication of the European Centre for Research Training and Development -UK

birth preparedness and complication readiness in South Eastern Nigeria. A cross sectional descriptive study was used to carry out the study among pregnant women, data was collected using questionnaire and analyzed using percentages. Findings of the study revealed that 70.6% of the respondents were aware of the concept of birth preparedness and complication readiness.

Joshua, Judith and Shoagu (2016) assessed the factors influencing BPCR in Uganda, out of 810 mothers surveyed in Mulago hospital, Uganda, data was collected using questionnaire. Findings revealed that 610 women were unemployed and only 1 in 4 women had knowledge of key components of birth preparedness and complication readiness. Women who were not in formal employment were less likely to have knowledge of danger signs in pregnancy and labour. In a similar study by Botha *et al* (2013) in Salima district, Malawi, an evaluation among 15 mothers in the health centre, data was collected using questionnaire. Findings showed that 47% of the women were basically engaged in subsistence farming, 5% saved money for childbirth but had no plans for complications.

Tilahun and Sinaga (2015) assessed the awareness of women on birth preparedness and complication readiness in Eastern part of Ethiopia, descriptive study was done using 436 women. Data was collected using questionnaire, standard deviation analysis was done and findings of the study revealed that only 40.9% of the women had knowledge of danger signs during pregnancy, labour and post partum. Ibrahim, Owoeye and Wagbatsoma (2012) explored level of awareness of women of birth preparedness and complication readiness in University of Benin Teaching Hospital, Benin, Edo State Nigeria. The cross sectional multicentre descriptive study was conducted among 300 women, data was collected using questionnaire and analyzed using simple proportion and percentages, findings of the study that 40.4% of the respondents embraced birth preparedness because it allows for ease of delivery, 23.7% of the respondents were aware of avoidable complications while 38% showed poor level of awareness of birth preparedness and complication readiness.

Mihret and Mesganew (2010) assessed knowledge and practice of birth preparedness and complication readiness among women in Adigrat town, North Ethiopia. A cross sectional community based study was conducted among 538 women, data was collected using structured questionnaire and analyzed using standard deviation and multivariate. Findings revealed that the practice of birth preparedness was higher among literate mothers 95% (2.11), married women 95% (5.69) and those who were advised about birth preparedness during their antenatal care 95% (2.65). Namita, Avinash and Rathore (2017) examined the practice of birth preparedness and complication readiness among pregnant women in rural area in Chhattisgarh, India. The community based cross sectional study was conducted among 110 pregnant women. Data was collected using structured questionnaire, analyzed using frequency, simple proportion and percentages. Finding of the study revealed that 73.65% of women identified skilled birth attendant for delivery, only 10% women saved money and 2.7% of women had identified blood donors for emergency and 89.09% were unaware of complications during

Publication of the European Centre for Research Training and Development -UK
labour.

Robert, Razak and Ladi (2014) examined the practice of birth preparedness and complication readiness among pregnant women in Sisala East District, Ghana. A cross sectional study was conducted among 400 women, data was collected using, structured questionnaire, analyzed using percentages. Findings of the study revealed that 58.0% of respondents attended regular antenatal clinic, saved money and made provision for transportation in case of emergency. Also omari, afrane and ouma (2016) assessed the preparedness and complication readiness among women attending antenatal clinic at health facilities within Bureti sub-country, Kenya. A cross sectional study was conducted among 600 women, data was collected using structured questionnaire and analyzed with simple proportion and percentages. Findings revealed that 70.5% pregnant women were prepared for birth, while 90.6% reported readiness for complications.

Joshua, Judith and Shoagu (2016) assessed awareness and factors influencing birth preparedness and complication readiness among pregnant women in Mulago Hospital, Uganda. A cross sectional study was conducted among 810 mothers, data was collected using structured questionnaire and analyzed using mean, and standard deviation. Findings of the study showed that only 1 in 4 women had knowledge of key components of birth preparedness. Women who were not in formal employment were less likely to have knowledge of danger signs in pregnancy and labour (47%). Agbodohu (2013) assessed the awareness, practice and factors affecting birth preparedness and complication readiness among expectant mothers in Ridge Regional Hospital, Accra, Ghana. A cross sectional design was conducted among 400 expectant mothers, data was collected using structured questionnaire and analyzed using SPSS version 16. Findings revealed that 77.3% were aware of the fact that they need blood, 31.6% had arranged for blood donors, there was a significant relationship between level of preparedness and educational level and also a relationship between distance and ante-natal clinic attendance.

Botha et al., (2013) explored the factors influencing birth preparedness and complication readiness among pregnant women in salima District, Malawi A descriptive cross sectional study was used for the study. A total of 15 mothers were recruited for the study, data was collected using questionnaire and analyzed using content analysis. Findings of the study revealed that 47% of women were basically engaged in subsistence farming, 5% saved money for childbirth, but had no plans for complications. Ijeorna (2015) assessed the Knowledge, practice and factors influencing birth preparedness and complication readiness among couples in selected rural communities in Oji River Local Government Area in Enugu State. A cross-sectional descriptive survey was done among 470 women, data was collected using structured questionnaire and descriptive and inferential statistics was used to analyze the data. Findings of the study showed that 20% of respondents actually practiced the acceptable level of birth preparedness, financial constraint was the significant factor that hindered couples practice of

Publication of the European Centre for Research Training and Development -UK

birth preparedness, there was significant difference in the average monthly income, educational qualification of the couple and practice of birth preparedness and complication readiness.

Debelew, Afework and Yalew (2014) assessed the knowledge and factors affecting birth preparedness and complication readiness in Jimma zone, Southwest Ethiopia. A cross sectional study was conducted among 3612 pregnant women, data was collected using structured questionnaire and analyzed by bivariate analysis, findings of the study showed that only 23.3% of the women were prepared for birth preparedness and complication readiness, distance, education, husband's occupation, attitude and frequency of antenatal visits were among the factors that affected birth preparedness and complication readiness.

Ekabua et al., (2011) explored the factors influencing birth preparedness and complication readiness in South Eastern Nigeria. A cross sectional descriptive study was conducted among 800 women, data was collected using questionnaire and analyzed using percentages. Findings of the study showed that 55.1 % respondents resided in rural areas and hospital delivery was 48.8%, indicating that distance was a major factor, 14% of the women could not afford hospital bill and 31 % had no transport fare. Cheptum, Omoni and Mirie (2018) examined the factors affecting practice of birth preparedness and complication readiness among pregnant women in Migori Country, Kenya. The facility-based cross sectional study was conducted among 389 pregnant women, data was collected using focus group discussion and structured questionnaire, and analyzed using thematic analysis. Findings revealed that 95% of the women identified distance to place of delivery, inability to saved money and made poor arrangement for emergency transportation as factors affecting birth preparedness practice.

MATERIAL AND METHOD

Research design

Cross-sectional descriptive survey design was adopted for this study. The design was adopted in order for the selected variables to be measured at a single time.

Study Setting

The setting of this study is University of Calabar Teaching Hospital (UCTH), Calabar. The tertiary healthcare facility is located in Calabar the capital city of Cross River State, Nigeria. Calabar lies between longitudes 8° 18'00"E to 8°24'00E and latitudes 4°54'00N to 5°04'00E. It has an area of 406km² and a population of 371,022 as at 2006 census. University of Calabar Teaching Hospital (UCTH) serves as a clinical setting for teaching medical, nursing, medical laboratory science, radiography students and also students from other health related courses. It also provides specialist clinical services as well as promotion of scientific knowledge through research. The hospital is made up of 25 wards and units and 428 beds.

Research Population

The target population of this study consisted of women attending antenatal clinic at UCTH, Calabar. However, the accessible population of the study consisted of seven hundred and ninety-four (794) married pregnant women attending antenatal clinic at UCTH, Calabar. The reason for using the married pregnant women is because only few husbands follow their wives to antenatal clinic.

Sample size/Sampling Technique

The sample of this study comprised 238 married pregnant women attending antenatal clinic at UCTH, Calabar. The sample size was calculated using thirty percent (30%) of the population of married pregnant women (794) attending antenatal clinic at UCTH, Calabar. The sampling technique used to select the study is simple random sampling technique.

Instrument for data collection

The instrument of data collection is a structured questionnaire which was administered to study participants using face to face method.

Method of data collection

Data was collected using face to face administration of questionnaire to the respondents. The administration took a period of four weeks.

Method of data analysis

Data were analyzed using statistical package for social sciences and presented using frequencies, percentages, tables and descriptive means. The hypothesis was tested using Chi-square analysis.

RESULTS**Table I: Socio-Demographic Data****(n = 238)**

Variables	Frequency	Percentage (%)	Mean (X)
Age:			
Below 21	34	14.3	35.0
21 - 30	72	30.3	
31- 40	88	37.0	
41 - 50	44	18.4	
Marital status			
Married	175	73.5	
Single	44	18.5	
Divorced	11	4.6	
Widow	8	3.4	
Educational Qual.			

Publication of the European Centre for Research Training and Development -UK

Primary education	22	9.3
Secondary education	141	59.2
Tertiary education	75	31.5
Occupation		
Civil servant	88	37.0
Unemployed	37	15.6
Business/traders	81	34.0
Artisans	32	13.4
Religion		
Christians	218	91.5
Muslims	6	2.5
African traditional religion	12	5.0
No of Children		
None	29	12.2
1-2	86	36.1
3-4	71	29.8
5 & above	52	21.8

The results of Socio-demographic data presented in Table I showed that most of the respondents, 88 (37.0%) were within the ages of 31-40 years; 72 (30.3%) respondents were between 21-30 years; 44 (18.4%) respondents were within the ages of 41-50 years; while 34 (14.3%) respondents were below 21 years. Regarding the marital status, majority of the respondents, 175 (73.5%) respondents were married, single respondents were 44 (18.5%); divorcees were 11 (4.6%), while 8 (3.4%) respondents were widows.

Also, most of the respondents 141 (59.2%) had secondary education. those who had tertiary education were 75 (31.5%), while 22 (9.3%) respondents attended primary education. Eighty-eight 88 (37.0%) respondent were civil servants. 81 (34.0%) were into business and trading, 37 (15.6%) respondents were unemployed, while 32 (13.4%) respondents were artisans. In addition, majority of the respondents, 218 (91.5%) were Christians, 6 (2.5%) were Moslems, while 12 (5.0%) respondents were African traditional religion worshippers. Lastly, most 86 (36.1%) of the respondents had 1-2 children, 71 (29.8%) respondents had 3-3 children, 52 (21.8%) respondents had 5 children and above, while 29 (12.2) respondents had had no children yet.

Results of Research Questions

Research Question 1: What is the level of awareness of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar?

Table 2: Summary of responses to items on level of birth preparedness and complication readiness among women attending antenatal clinic at UCTH, Calabar

Statements	Responses					
	Agreed	%	Disagreed	%	Σ	(\bar{X})
Birth preparedness and complication readiness requires a pregnant woman to know her expected date of delivery.	181	76.1	57	23.9	419	1.76
A pregnant woman prepared and ready for birth complication should be aware that labour can start before due date.	176	73.9	62	26.1	414	1.74
Pregnant woman should make arrangement for transportation to hospital in case labour starts unexpectedly.	180	75.6	58	24.4	418	1.76
Vaginal bleeding and loosing liquor during pregnancy are danger signs that a pregnant woman should be aware of.	172	72.3	66	27.7	410	1.72
Swelling of face, ankle and feet are danger signs that a pregnant woman should report to midwives	162	68.1	76	31.9	400	1.68

Publication of the European Centre for Research Training and Development -UK

When performing a breast self examination a woman should stand without a top and brazier in front of a mirror, using her right hand to examine her left breast and her left hand to examine her right breast	158	66.4	80	33.6	396	1.66
--	-----	------	----	------	-----	------

Total mean±(SD) score = 10.3

Decision: Mean (X)±SD score < 1.5 = low awareness, while 1.5 & above = high awareness

Results in Table 2 revealed that majority, 181 (76.1%) of the respondents are aware that birth preparedness and complication readiness requires a pregnant woman to know her expected date of delivery, but 57 (23.9%) respondents are not aware. One hundred and seventy-six (73.9%) respondents were aware that a pregnant woman prepared and ready for birth complication should be aware that labour can start before the due date, but 62 (26.1%) respondents were not. Also, 180 (75.6%) respondents were aware that pregnant woman should make arrangement for transportation to hospital in case labour starts unexpectedly, but 58 (24.4%) respondents were not aware. Furthermore, 172 (72.3%) respondents were aware that vaginal bleeding and loosing liquor during pregnancy are danger signs that a pregnant woman should not take lightly, but 66 (27.7%) respondents were not. Again, 162 (68.1%) respondents were aware that swelling of face, ankle and feet are danger signs that a pregnant woman should report to midwives, but 76 (31.9%) respondents were not aware. Lastly, 158 (66.4%) respondents were aware that birth preparedness and complication readiness entails that a pregnant woman saves money in case of emergency, but 80 (33.6%) respondents were not aware.

In addition, the table showed that the total mean score obtained by the respondents is 10.3 out of 18.0. The highest mean score per item is 1.76 out of 3.0, and it was obtained on awareness of a woman's expected date of delivery. The lowest mean score per item is 1.66 out of 3.0, and it was obtained on awareness of saving money in case of emergency. This is followed by a mean score of 1.68 which is obtained on awareness of swelling of face, ankle and feet as danger signs that a pregnant woman should report to midwives.

Research Question 2: What is the level of practice of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar?

Publication of the European Centre for Research Training and Development -UK

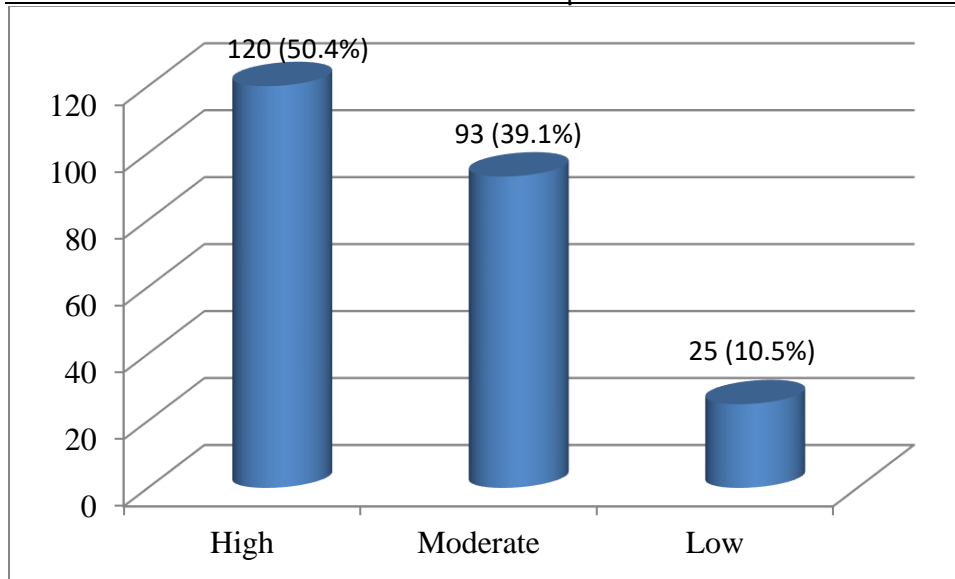


Fig I: Level of practice of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar

Results in Figure I revealed that the level of practice birth preparedness and complication readiness among 120 (50.4%) respondents is high, moderate in 93 (39.1%) respondents low in 25 (10.5%) respondents.

Research Question 3: what are the factors affecting birth preparedness and complication readiness among women attending antenatal clinic at UCTH, Calabar?

Table 3 Factors affecting birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar

Statements	Responses		Σ	(\bar{X})
	Agreed %	Disagreed %		

Publication of the European Centre for Research Training and Development -UK

The nearby health facility is very far from my place of residence making it difficult for me to access antenatal care	167	70.2	71	29.8	405	1.70
Lack of support/assistance from family members, relative and friends makes it difficult for me to prepare and get ready for birth and complication.	188	79.0	50	21.0	426	1.79
Lack of financial support from my husband prevents me from practicing birth preparedness and complication readiness.	175	73.5	63	26.5	413	1.74
Religious and cultural beliefs make it difficult to practice birth preparedness and complication readiness.	52	21.8	186	78.2	290	1.22
Lack of awareness is a barrier to effective implementation of birth preparedness and complication readiness.	193	81.1	45	18.9	431	1.81
Poor inter-personal relationship between midwives and pregnant women makes it difficult for the women to prepare and get ready for birth and complication.	117	49.2	121	50.8	355	1.49
Total mean±(SD) score =						9.75

Decision: Mean (X)±SD score < 1.5 = low awareness, while 1.5 & above = high awareness

Results in Table 3 revealed that majority, 167 (70.2%) of the respondents agreed that the nearby health facility is very far from my place of residence making it difficult for me to access antenatal care, but 71 (29.8%) respondents did not. One hundred and eighty-eight (79.0%) respondents asserted that lack of support and assistance from family members, relative and friends makes it difficult for them to prepare and get ready for birth and complication, but 50 (21.0%) respondents did not. Also, 175 (73.5%) respondents agreed that lack of financial support from their husband prevents them from practicing birth preparedness and complication readiness, but 63 (26.5%) respondents disagreed.

Furthermore, 52 (21.8%) respondents reported that religious and cultural beliefs make it difficult for them to practice birth preparedness and complication readiness, but 63 (26.5%) respondents did not.

Also, 193 (81.1%) respondents reported that negative perception about breast cancer is responsible for low awareness and practice of breast self examination, but 45 (18.9%) respondents did

Publication of the European Centre for Research Training and Development -UK

not. Lastly, 117 (49.2%) respondents stated that religious believes about diseases like breast cancer affects the level of breast self examination among women of child bearing age, but 121 (50.8%) respondents did not.

In addition, the table revealed that the total mean score obtained by the respondents is 9.75 out of 18.0. The highest mean score per item is 1.81 out of 3.0, and it was obtained on negative perceptions about breast cancer. This is followed by a mean score of 1.79 which is obtained on negative attitude about practice of breast self examination. The lowest mean score per item is 1.22 out of 3.0, and it was obtained on low education. This is followed by a mean score of 1.49 which is obtained on religious beliefs about breast cancer.

Test of Hypothesis

Hypothesis: There is no significant relationship between the level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar.

To test this hypothesis, data collected on level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar.were analyzed using Chi-square (X^2) analysis. Respondents who had high level awareness of birth preparedness and complication readiness were 175 (who had mean score above ≥ 10.0), while those who had low awareness were 63. Also, respondents who had high level practice of birth preparedness and complication readiness were 120, those who had moderate practice were 93 and those who had low practice were 25. The result of Chi-square analysis is presented in Table 4.

Table 4: Chi-square (X^2) analysis of relationship between the level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar (N = 238)

Awareness BPCR	Practice of BPCR			Total	df	Sig.	X^2 Crit	X^2 Cal	Decision
	High	Moderate	Low						
High	85	74	16	175	2	0.05	5.99	23.4	Rejected
Low	35	19	9	63					
Total	120	93	25	238					

Significant at 0.05; df = 1, X^2 Crit = 5.99; X^2 Cal = 23.4

The result Chi-square (X^2) analysis in Table 4 revealed that the calculated value of 23.4 is higher than the critical value of 5.99 at 0.05 level of significant with 2 degrees of freedom. This implies that the result is significant; therefore the null hypothesis which stated that there is no significant relationship between the level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar was rejected. Hence, the alternate hypothesis that there is a significant relationship between the level of awareness and practice of birth preparedness and complication readiness among couples attending antenatal clinic at University of Calabar Teaching Hospital (UCTH), Calabar was accepted in favour of pregnant women who have high awareness of birth preparedness and complication readiness.

DISCUSSION OF FINDINGS

Awareness of birth preparedness and complication readiness among women attending antenatal clinic at UCTH, Calabar

The findings of this study revealed that the level of awareness of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar is high. Most (73.5%) respondents have high level awareness of birth preparedness and complication readiness, while (26.5%) have low awareness. Most respondents are aware that a pregnant woman should know her expected date of delivery; labour can start before due date; a pregnant woman should make arrangement for transportation to hospital in case of emergency labour; and the danger signs such as vaginal bleeding and swelling of face and feet.

The findings correspond with a previous study by Ohamaeme, Egwurugulu, Dike and Chinko (2017) on assessment of birth preparedness and complication readiness among pregnant women in Orlu Local Government Area in Imo State, Nigeria. The study revealed that most of the respondents were aware of birth preparedness and complication readiness, with 80% aware of danger signs in pregnancy, and 84.8% prepared items for birth for birth such as transportation and saving money. Similarly, the findings agree with a study in south eastern Nigeria by Ekabua et al., (2011) which revealed that 70.6% of the respondents were aware of the concept of birth preparedness and complication readiness.

Practice of birth preparedness and complication readiness among women in UCTH, Calabar,

It was also revealed in this study that the level of practice of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar is high. Most (50.4%) of the respondents have high level practice, 39.1% have moderate practice, while 10.5% respondents have low practice. Most of the respondents attend antenatal care up to four times, have saved money in case

Publication of the European Centre for Research Training and Development -UK of birth complications, have made arrangement for care of the home during mother's absence, and have identified and arrange for transportation to the hospital when labour begins.

The result corresponds with the a study by NamitaAvinash and Rathore (2017), whose examination of the practice of birth preparedness and complication readiness among pregnant women in rural area in Chhattisgarh, India revealed that majority (73.65%) of the respondents (pregnant women) high level practice of birth preparedness. Most of the respondents have already identified skilled birth attendant for delivery, while 52.7% of women had already identified blood donors in case of emergency. Similarly, the result corresponds with a study by Robert, Razak and Ladi (2014), whose examination of practice of birth preparedness and complication readiness among pregnant women in Sisala East District, Ghana revealed that 58.0% of respondents attended regular antenatal clinic, saved money and made provision for transportation in case of emergency.

Factors affecting birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar

The findings of this study further revealed that the factors affecting birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar include: distance to health facility, lack of adequate support/assistance from family members, relative and friends, lack of financial support from my husbands, lack of awareness of the components of birth preparedness and complication readiness and poor inter-personal relationship between midwives and pregnant women. When pregnant women do not receive adequate support from husbands, friends, and relatives, they may find it difficult to practice birth preparedness and complication readiness. But if they receive adequate support, it will be much easier for them to practice birth preparedness and complication readiness.

Also, if pregnant women are aware of the components of birth preparedness and complication readiness, the will make sure to visit antenatal clinic at least four times, save money in case of emergency, and make provision for emergency transportation. The findings correspond with Kaiser Family Foundation (2000), who noted that most parent do not belief that teaching children about safe sex practice could protect the children, rather, it will expose them to sexual behaviour at an early stage. But if parents lack knowledge of safe sex education coupled with negative perception about the practice, providing it to the children will be difficult. This findings also agree with a facility-based cross sectional study by Cheptum, Omoni and Mirie (2018) assessed in Migori Country, Kenya, which revealed that distance to place of delivery and lack of husband and loved ones were militating against practice of birth preparedness and complication readiness. Also, the findings agree with studies by Ekabua et al., (2011) in in South Eastern Nigeria and Debelew, et al (2014) in Jimma zone, Southwest Ethiopia, which revealed that distance, husband's occupation and support, attitude of relatives were among the factors that affected birth preparedness and complication readiness.

Implication to Nursing

The implication of this study to nursing is that it will create awareness and consciousness on awareness, practice and factors influencing birth preparedness and complication readiness. It will also, serve as an eye opener to health policy makers, nurse educators and nurses in general to mitigate the factors inhibiting practice of birth preparedness and complication readiness in UCTH, Calabar, Cross River State, and Nigeria as a whole. They will intensify effort target at educating pregnant women during antenatal visits and through the mass media on birth preparedness and complication readiness.

CONCLUSION

In conclusion, although adequate awareness and practice of birth preparedness and complication readiness is an affective of preventing maternal mortality, the extent to which it is practiced among pregnant women in some places is not as expected. This study had revealed that most pregnant women attending antenatal clinic in UCTH, Calabar have high awareness of birth preparedness and complication readiness. Although the level of practicing birth preparedness is high, but still low among some pregnant women. The factors inhibiting the practice of birth preparedness and complication readiness among couples attending antenatal clinic at UCTH, Calabar include: distance to health facility, lack of adequate support/assistance from family members, relative and friends, lack of financial support from my husbands, lack of awareness of the components of birth preparedness and complication readiness and poor inter-personal relationship between midwives and pregnant women

Recommendations

Based on the findings of the study the following recommendations were given:

1. Health policy makers, hospital managements and nurse leaders should ensure that couples attending antenatal clinic are adequately educated on the importance of birth preparedness and complication readiness. This will enable them practice birth preparedness and complication readiness very effectively.
2. Health policy makers, hospital managements and nurse leaders should organize regular mass orientation and sensitization programs for couples on the importance of birth preparedness and complication readiness. This will help to educate and increase awareness of the practice, as well as motivate couples to always practice it.
3. Husbands should learn to always give their wives adequate physical, social and financial support so that they can practice birth preparedness and complication readiness effectively.
4. The government should provide more health facilities since distance to health facilities is discovered to be a factor affecting practice of birth preparedness and complication readiness.

Publication of the European Centre for Research Training and Development -UK

5. Nurses and midwives attending to pregnant women during antenatal visits should improve on the quality of midwives/pregnant women relationship. This will encourage pregnant women to always attend antenatal care, thereby attending at least four times during pregnancy.

REFERENCES

- Abdella, A. (2014). Maternal mortality trend in Ethiopia. *Ethiopian Journal of Health Development*. 24(1), 118-140. doi: 10.4314/ejhd.v24i1.62953.
- Acharya, A., Kaur, R., Prasuna, J. & Rasheed, N. (2015). Making pregnancy safer; birth preparedness and complication among antenatal women attendees of a primary health center, Delhi, *Indian Journal Community Med*. 40(5), 127-134.
- Bhandari, T. & Dangal, G. (2014). Emergency obstetric care: Strategy for reducing maternal mortality in developing countries. *Nepal Journal of Obstetrics and Gynaecology*. 9(1), 8-16.
- Botha, A., Maluula, A., Pindani, M. & Bultemeier, K. (2013). Birth preparedness and complication readiness among postnatal mothers in Malawi Lilongwe, Malawi. 5(3), 1433-1486.
- Debelew, G., Afework, M. & Yalew, A. (2014). Factors affecting birth preparedness and complication readiness in Jimma Zone, South West Ethiopia: A multilevel analysis. *The Pan African Medical Journal*. 19(272), 148-170.
- Ekabua, J., Ekabua, K., Odusolu, P., Agan, T., Iwaki, C. & Etokidem, A. (2011). Awareness of birth preparedness and complication readiness in southeastern Nigeria, Nigeria. *ISRN obstet Gynecol*. doi: 10.5402/2011/560641.
- Gebre, M., Gebremariam, A. & Abebe, T. (2015). Birth preparedness and complication readiness among pregnant women in Duguna, Fango District, WolaytaZoin, Ethiopia *Plos one*. doi: 10:eo137570.
- Gupta, A. & Malhotra, S. (2014). Should birth preparedness and complication readiness interventions be scaled up in developing countries? *India Natl Med. Journal*; 27(5), 327-338.
- Hailu, D. & Berhe, H. (2013). Knowledge about obstetric danger signs and associated factors among mothers in Tsegedic district, Tigray region, Ethiopia. *Med. Journal*. 9(2), 1112-1134.
- Hari, P., Nirmalaneupane, L. & Ajaya, A. (2015). Birth preparedness and complication readiness among women in Lekhnath Municipality, Nepal. *Global Journal of Medicine and Public Health*. 4(3), 470-499.
- Idris, S., Sambo, M. & Ibrahim, M. (2013). Barriers to utilization of Maternal health services in a semi-urban community in northern, Nigeria: The clients perspective. *Nigerian Medical Journal*. 54(1), 27-32. doi: 10.4103/0300-1652.108890.
- Kabakyenga, T., Ostergern, P., Turyakira, E. & Pettersson, K. (2011). Knowledge of obstetric danger signs and birth practices among women in rural Uganda. *Journal of Reproductive Health*. 8(33) 118-130.

Publication of the European Centre for Research Training and Development -UK

- Kaso, M. & Addisse, M. (2014). Birth preparedness and complication readiness in robe Woreda, Arsi Zone, Oromia region central Ethiopia. *Reproductive Health Bio. Med. Journal*. 11(15), 1118-1127.
- Moore, B., Alex-Hart, B. & George, I. (2011). Utilization of health care services by pregnant mothers during delivery: A community based study in Nigeria. *East African Journal of Public Health*. 8(1), 48-50.
- Omari, P., Afrane, Y. & Onma, P. (2016). Birth preparedness and complication readiness among women attending ANC in health facilities in Bureti Sub-country of Kericho country, Kenya. *American Journal of Medicine and Medical Sciences*. 6(4), 123-128.
- Tiku, S. (2015). Awareness of BP/CR among Antenatal care clients in Federal Police referral hospital, Addis Ababa Ethiopia. *American Journal of Health Research*. 3(6), 362-370.
- Tilahun, T. & Sinaga, M. (2016). Knowledge of obstetric danger signs and birth preparedness practices among pregnant women in rural communities of eastern Ethiopia. *Academic Journal*. 8(1), 1-11.
- Wang, W., Alua, S., Wang, S. & Fort, A. (2011). Levels and trends in the use of maternal health services in developing countries DHS comparative reports, ICF macro Calverton, Maryland, USA.
- World Health Organization (2015). Birth and emergency preparedness in antenatal care; integrated management of pregnancy and childbirth. Geneva. 1(9), 3-6.