

# INVESTIGATING THE INFLUENCE OF ANTENATAL CARE ATTENDANCE ON KNOWLEDGE AND AWARENESS LEVELS OF PREGNANT WOMEN IN IKOT EBOK PRIMARY HEALTH CENTRE, EKET ABOUT BIRTH PREPAREDNESS AND COMPLICATION READINESS

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#### **ABSTRACT**

The study investigated factors influencing birth complications during childbirth among pregnant women at Ikot Ebok Primary Health Centre, Eket. Guided by four research questions and null hypotheses, a descriptive cross-sectional research design was employed. A sample size of 179 was obtained from 324 pregnant women using Taro Yamane formula. Structured questionnaires collected data on sociodemographic characteristics, economic factors, cultural beliefs, healthcare system factors and maternal health services utilization. Data analysis involved descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics (one-sample t-tests and chi-square tests). The study found a high level of birth preparedness, with significant influences from socio-demographic factors, knowledge of potential complications, and antenatal care attendance. The implications for nursing include enhanced antenatal education, tailored interventions, resource allocation, policy development, and professional development. Limitations include sample size, self-reported data, crosssectional design, and cultural specificity. The findings on research question three revealed that the knowledge and awareness levels of pregnant women regarding potential birth complications was high. It also revealed that there was a significant influence of antenatal care attendance on birth preparedness and complication readiness. Recommendations emphasize improve access to and the quality of antenatal care services to ensure that all pregnant women can attend regular check-ups and receive timely information and support.

Keywords: Child's Birth, Pregnant Women, Ikot Ebok, Primary Health Care and Eket

### INTRODUCTION

### **Background to the Study**

Childbirth is a critical event in a woman's life, with significant implications for both maternal and neonatal health. Ensuring adequate birth complication readiness (BP/CR) is essential for reducing maternal and neonatal mortality, particularly in resource-limited settings such as primary health centers (PHCs) in rural areas. Ikot Ebok, a rural community in the Eket Local Government Area of Akwa Ibom State, Nigeria, faces challenges related to access and utilization of quality maternal healthcare. Understanding the knowledge, awareness, and preparedness of pregnant women regarding birth complications is crucial in addressing gaps in maternal health services (Thaddeus & Maine, 1994).

This study aims to explore the knowledge and awareness levels of pregnant women regarding potential birth complications and assess how antenatal care (ANC) attendance influences birth preparedness and complication readiness in Ikot Ebok. By examining these factors, the study seeks to identify barriers to maternal healthcare utilization and provide evidence-based recommendations for improving maternal and neonatal outcomes (Campbell & Graham, 2006).





Knowledge and awareness of birth complications play a vital role in shaping maternal health-seeking behaviors. Pregnant women with adequate knowledge about potential obstetric risks are more likely to recognize danger signs and seek appropriate medical care (McPherson et al., 2006). However, in rural communities like Ikot Ebok, limited access to health education and cultural beliefs may impact awareness levels, potentially increasing the risk of complications during childbirth (Gabrysch & Campbell, 2019). Regular ANC visits facilitate early detection of complications, timely referrals, and improved maternal health outcomes. However, factors such as economic constraints, distance to health facilities, and healthcare system limitations may influence ANC attendance and its effectiveness in promoting birth preparedness (Moyer et al., 2014).

This study seeks to bridge that gap by evaluating the knowledge of birth complications among pregnant women and investigating the impact of antenatal care attendance on birth preparedness and complication readiness. The findings will inform targeted interventions aimed at enhancing maternal health awareness, increasing ANC utilization, and improving overall birth preparedness in rural settings (Tura et al., 2018). By addressing these critical factors, stakeholders can develop strategies to promote maternal health education, strengthen healthcare services, and ultimately reduce maternal and neonatal morbidity and mortality in communities like Ikot Ebok.

#### STATEMENT OF THE PROBLEM

Maternal and child health outcomes are significantly influenced by birth preparedness and the ability to manage complications during childbirth. Despite advancements in medical care, challenges persist in ensuring adequate birth preparedness and reducing childbirth-related complications, particularly in rural healthcare settings such as the Primary Health Center in Ikot Ebok, Eket. These challenges underscore the need to understand the factors affecting birth preparedness and complication readiness among pregnant women in this community.

A key issue is the level of knowledge and awareness pregnant women have regarding potential birth complications. Limited awareness may hinder timely recognition of danger signs and delay the decision to seek appropriate care, increasing the risk of adverse maternal and neonatal outcomes. Understanding the extent of women's knowledge about childbirth complications is crucial for designing effective educational interventions that promote maternal health.

Another critical concern is the influence of antenatal care (ANC) attendance on birth preparedness and complication readiness. ANC visits provide essential health education, facilitate early detection of complications, and encourage the adoption of safe delivery practices. However, factors such as financial constraints, cultural beliefs, and healthcare system limitations may affect the frequency and quality of ANC attendance, ultimately influencing birth preparedness and the ability to manage complications.

Additionally, systemic healthcare challenges, including inadequate infrastructure, shortages of skilled birth attendants, and limited access to emergency obstetric care, may further compromise maternal and neonatal health. These barriers can prevent pregnant women from receiving timely and effective care, increasing the likelihood of birth-related complications. Despite the importance of these issues, there is a lack of comprehensive data on the knowledge and awareness levels of pregnant women regarding birth complications and the impact of ANC attendance on birth preparedness in Ikot Ebok. This gap in knowledge hinders the development of targeted interventions and policies aimed at improving maternal health outcomes.

Therefore, this study seeks to explore the awareness and knowledge levels of pregnant women regarding birth complications and assess how antenatal care attendance influences birth preparedness and complication readiness. By identifying the key barriers and facilitators in this context, the findings will help inform strategies to improve maternal health education, enhance ANC utilization, and ultimately reduce preventable maternal and neonatal morbidity and mortality in the region.





### **OBJECTIVES OF THE STUDY**

The prime objective of the study is to investigate factors influencing complications during child's birth among pregnant Women in Ikot Ebok Primary Health Centre, Eket. Specifically, the study intends to:

- Explore the knowledge and awareness levels of pregnant women regarding potential birth complications.
- ii. Investigate the influence of antenatal care attendance on birth preparedness and complication readiness

# **RELEVANT RESEARCH QUESTIONS**

The study is poised to proffer answers to the guiding questions.

- i. What is the knowledge and awareness levels of pregnant women regarding potential birth complications?
- ii. What is the influence of antenatal care attendance on birth preparedness and complication readiness?

#### **RELEVANT RESEARCH HYPOTHESES**

The following null hypotheses guided the study.

Ho<sub>1</sub>: There is no significant knowledge and awareness levels of pregnant women regarding potential birth complications.

Ho<sub>2</sub>: There is no significant influence of antenatal care attendance on birth preparedness and complication readiness.

#### LITERATURE REVIEW

### **KNOWLEDGE AND AWARENESS LEVELS OF PREGNANT WOMEN**

Knowledge and awareness levels of pregnant women regarding pregnancy, childbirth, and related complications are crucial determinants of maternal and neonatal outcomes. Adequate knowledge enables women to make informed decisions, seek timely care, and adopt beneficial health practices. Various studies have highlighted the disparities in knowledge and awareness among pregnant women, influenced by socio-economic, cultural, and educational factors.

Knowledge and awareness about pregnancy and childbirth encompass understanding the importance of antenatal care, recognizing danger signs during pregnancy, and being aware of birth preparedness and complication readiness (BP/CR). According to a study by Phommachanh et al. (2021), in Laos, only 42% of pregnant women had adequate knowledge about the importance of regular antenatal visits. Similarly, a study in Ethiopia by Berhane and Enquselassie (2016) found that only 36% of pregnant women could identify at least three danger signs during pregnancy.

### **FACTORS INFLUENCING KNOWLEDGE LEVELS**

Educational Attainment Educational level is a significant determinant of knowledge and awareness among pregnant women. Women with higher educational attainment tend to have better knowledge about pregnancy and related complications. This is supported by a study conducted in Nigeria by Iliyasu et al. (2019), which revealed that women with secondary or higher education were more knowledgeable about pregnancy complications than those with primary education or no formal education.

Antenatal Care Attendance Regular antenatal care (ANC) visits are associated with higher knowledge levels among pregnant women. ANC visits provide an opportunity for health education and counseling. A study by Tsegaye et al. (2020) in Ethiopia demonstrated that women who attended four or more ANC visits were more likely to be knowledgeable about birth preparedness and complication readiness.





Socio-Economic Status Socio-economic status also plays a critical role in determining knowledge and awareness levels. Women from higher socio-economic backgrounds tend to have better access to information and healthcare services. A study conducted in India by Chaurasia (2020) found that wealthier women were more knowledgeable about maternal health services and complications compared to women from poorer households.

### **BARRIERS TO ADEQUATE KNOWLEDGE AND AWARENESS**

Cultural Beliefs and Practices Cultural beliefs and practices can hinder the dissemination and uptake of knowledge regarding maternal health. In many communities, traditional beliefs may conflict with modern medical advice, leading to misinformation. For example, a study in rural Nepal by Paudel et al. (2018) highlighted that cultural practices promoting home births and reliance on traditional birth attendants negatively impacted women's knowledge about institutional deliveries and emergency obstetric care.

Healthcare System Challenges Inadequate healthcare infrastructure and lack of trained healthcare providers can limit the provision of health education to pregnant women. A study by Doctor et al. (2020) in Nigeria identified that women in areas with poor healthcare infrastructure were less likely to receive adequate information about pregnancy and childbirth during their ANC visits.

Language and Communication Barriers Language barriers and poor communication between healthcare providers and pregnant women can also impede the transfer of knowledge. A study by Wilunda et al. (2017) in Kenya found that language differences between healthcare providers and patients led to misunderstandings and reduced the effectiveness of health education sessions.

#### INTERVENTIONS TO IMPROVE KNOWLEDGE AND AWARENESS

Health Education Programs Implementing comprehensive health education programs targeting pregnant women can significantly improve their knowledge and awareness levels. Such programs should be culturally sensitive and delivered in local languages to ensure maximum reach and impact. For example, a community-based health education intervention in rural Tanzania by Mushi et al. (2018) successfully increased knowledge about antenatal care and danger signs during pregnancy.

Community Engagement Engaging community leaders and leveraging community-based organizations can help in disseminating information about maternal health. Involving men and family members in educational sessions can also enhance support for pregnant women. A study in Ghana by Asamoah et al. (2017) demonstrated that community engagement strategies significantly improved knowledge and utilization of maternal health services.

Use of Technology Utilizing mobile health (mHealth) technologies can provide timely information and reminders to pregnant women. Mobile applications and SMS-based interventions have been shown to increase knowledge about pregnancy and improve antenatal care attendance. A study by Lund et al. (2019) in Uganda found that an mHealth intervention significantly improved pregnant women's knowledge about maternal health and increased ANC visits.

The knowledge and awareness levels of pregnant women are critical for ensuring positive maternal and neonatal outcomes. Various factors, including education, socio-economic status, cultural beliefs, and healthcare system challenges, influence these levels. Targeted interventions such as health education programs, community engagement, and the use of technology can effectively improve knowledge and awareness among pregnant women.





### INFLUENCE OF ANTENATAL CARE ATTENDANCE ON COMPLICATION READINESS

Antenatal care (ANC) is a crucial component of maternal health services, designed to monitor and promote the health of both the mother and the fetus during pregnancy. It plays a significant role in enhancing birth preparedness and complication readiness (BPCR), which are critical factors in reducing maternal and neonatal morbidity and mortality. This extensive review examines the influence of ANC attendance on BPCR, drawing on empirical studies and highlighting key findings, barriers, and recommendations for improving maternal health outcomes.

### THE ROLE OF ANTENATAL CARE IN BIRTH COMPLICATION READINESS

ANC provides pregnant women with essential information and services that prepare them for childbirth and potential complications. Through regular ANC visits, women receive education on recognizing danger signs during pregnancy, the importance of skilled birth attendance, and the benefits of preparing for emergency situations (Kuganab-Lem et al., 2019).

A study by Markos and Bogale (2017) in Ethiopia found that women who attended four or more ANC visits were significantly more likely to be prepared for birth and potential complications compared to those who attended fewer visits. The study reported that 75% of women with adequate ANC attendance had a birth plan in place, including identifying a health facility for delivery and arranging transportation, compared to only 35% of women with inadequate ANC attendance.

Knowledge and Awareness Enhancement: ANC visits provide a platform for healthcare providers to educate pregnant women on critical aspects of birth preparedness. This includes recognizing danger signs, understanding the importance of facility-based deliveries, and planning for emergencies (Iliyasu et al., 2019). The consistent exposure to health education during ANC visits enhances women's knowledge and awareness, which in turn influences their readiness for childbirth and potential complications. Research by Mbalinda et al. (2014) in Uganda showed that women who received comprehensive ANC education were more knowledgeable about birth preparedness and complication readiness. The study found that 68% of women who attended ANC sessions knew at least three danger signs during pregnancy, compared to 40% among those who did not receive such education.

Influence on Health-Seeking Behavior: ANC attendance influences health-seeking behavior by encouraging women to utilize skilled birth attendants and health facilities for delivery. Women who regularly attend ANC are more likely to appreciate the benefits of skilled care during childbirth, which reduces the risk of complications and improves maternal and neonatal outcomes (Tesfaye et al., 2017). In a study conducted in rural Kenya, Wangui et al. (2018) found that women who attended ANC were more likely to seek delivery services at health facilities. The study reported that 80% of women with regular ANC attendance opted for facility-based deliveries, compared to 50% among those with irregular ANC visits. This shift in health-seeking behavior is critical for reducing maternal and neonatal mortality.

## **KNOWLEDGE OF PREGNANT WOMEN REGARDING POTENTIAL BIRTH COMPLICATIONS**

A study by Iliyasu et al. (2019) in Northern Nigeria examined the knowledge and awareness levels of pregnant women regarding maternal health and pregnancy complications. This cross-sectional study included 800 pregnant women attending antenatal care (ANC) clinics. The researchers utilized structured questionnaires to assess the participants' knowledge about danger signs during pregnancy, the importance of ANC, and birth preparedness. Findings indicated that while 65% of the women had attended at least one ANC visit, only 38% could identify at least three danger signs during pregnancy, such as severe abdominal pain, vaginal bleeding, and swelling of the hands/face. Education level significantly influenced knowledge, with women having secondary education or higher demonstrating better awareness. The study concluded that targeted health education programs are necessary to improve





knowledge and awareness among pregnant women, particularly those with lower educational attainment (Iliyasu et al., 2019).

In India, Chaurasia (2020) conducted a population-based study to assess the impact of antenatal education on the knowledge and awareness levels of pregnant women. This study used data from the National Family Health Survey (NFHS) and included a sample of 10,000 women. The researchers employed logistic regression analysis to explore the relationship between antenatal education and awareness of pregnancy-related complications. The study found that women who received antenatal education were significantly more likely to be aware of key maternal health issues, including the benefits of skilled birth attendance and the need for emergency obstetric care. Specifically, 72% of women who attended antenatal classes could correctly identify at least three danger signs during pregnancy, compared to only 45% of those who did not receive such education. The findings underscored the importance of integrating comprehensive antenatal education into routine ANC services to enhance knowledge and preparedness.

A qualitative study by Paudel et al. (2018) in rural Nepal explored the cultural barriers that affect the knowledge and awareness levels of pregnant women regarding maternal health. This study involved 60 in-depth interviews with pregnant women, their families, and healthcare providers. The researchers aimed to understand how cultural beliefs and practices influence maternal health knowledge and behaviors. The findings revealed that cultural practices, such as the preference for home births and reliance on traditional healers, significantly hindered women's knowledge about institutional deliveries and emergency obstetric care. Many women believed that childbirth should occur at home, attended by family members or traditional birth attendants, which contributed to low awareness of the benefits of skilled birth attendance. The study recommended culturally sensitive health education interventions that involve community leaders and family members to address these barriers.

A study by Wilunda et al. (2017) in rural Kenya examined the influence of socio-economic disparities on the knowledge and awareness levels of pregnant women. This cross-sectional study included 1,200 pregnant women and utilized structured interviews to assess their knowledge about maternal health services and pregnancy complications. The researchers also collected data on socio-economic factors such as income, education, and access to healthcare facilities. The study found significant disparities in knowledge levels based on socio-economic status. Women from higher-income households and those with better education were more knowledgeable about maternal health services and could identify more pregnancy danger signs. For instance, 80% of women from the highest income quintile could identify at least three danger signs, compared to only 30% of women from the lowest income quintile. The study concluded that addressing socio-economic barriers is crucial for improving knowledge and awareness among pregnant women and recommended policies to enhance access to education and healthcare services.

# INFLUENCE OF ANTENATAL CARE ATTENDANCE ON BIRTH PREPAREDNESS AND COMPLICATION READINESS

The study by Markos and Bogale (2017) found a significant association between the number of antenatal care (ANC) visits and birth preparedness and complication readiness (BPCR). Women who attended four or more ANC visits were more likely to have a birth plan, including identifying a health facility for delivery, arranging transportation, and saving money for childbirth-related expenses. The study highlighted that 75% of women with adequate ANC attendance had prepared for birth and potential complications, compared to only 35% of those with fewer ANC visits. The researchers concluded that regular ANC visits play a crucial role in enhancing BPCR among pregnant women. The study recommended increasing awareness about the importance of ANC visits and ensuring access to quality ANC services to improve BPCR.

Mbalinda et al. (2014) investigated the impact of ANC attendance on BPCR knowledge among pregnant women. The study revealed that women who received comprehensive ANC education were more knowledgeable about birth preparedness and complication readiness. Specifically, 68% of women who attended ANC sessions could identify at least three danger signs during pregnancy, compared to 40% among those who did not receive such education. The study emphasized the importance of ANC in





enhancing women's knowledge and awareness of BPCR. The study recommended integrating comprehensive health education into ANC visits to improve BPCR knowledge among pregnant women.

Wangui et al. (2018) explored the influence of ANC attendance on health-seeking behavior and BPCR. The study found that women who attended ANC were more likely to seek delivery services at health facilities. The researchers reported that 80% of women with regular ANC attendance opted for facility-based deliveries, compared to 50% among those with irregular ANC visits. This shift in health-seeking behavior was attributed to the education and counseling provided during ANC visits, which highlighted the importance of skilled birth attendance and emergency preparedness. The study recommended enhancing the quality of ANC services and promoting regular ANC attendance to improve BPCR and maternal health outcomes.

Tesfaye et al. (2017) assessed the association between ANC attendance and BPCR among pregnant women. The study found that women who attended ANC were more likely to have a birth plan and be prepared for potential complications. The study reported that women who attended four or more ANC visits were more likely to save money for childbirth, arrange transportation, and identify a health facility for delivery. Additionally, the study highlighted that ANC attendance improved women's awareness of danger signs during pregnancy and childbirth. The study recommended increasing ANC coverage and ensuring the availability of quality ANC services to enhance BPCR among pregnant women.

### **METHODOLOGY**

The study utilized a descriptive cross-sectional research design. The study was conducted at the Primary Health Center in Ikot Ebok, Eket, located in the Eket Local Government Area of Akwa Ibom State, Nigeria. The target population comprised 324 pregnant women who attended antenatal care services at the Primary Health Center in Ikot Ebok, Eket. The sampling procedure involved systematic sampling. A sample size of 179 pregnant women was used statistically determined by Taro Yamane formula. Data was collected using structured questionnaires. The questionnaires were validated through expert review and pilot testing. Reliability was assessed using Cronbach's alpha coefficient for internal consistency, yielding a coefficient of 0.975 indicate good reliability. A pilot study was conducted among 30 pregnant women from a nearby community health center to test the clarity, comprehensibility, and cultural appropriateness of the questionnaires. Quantitative data obtained from the questionnaires was analyzed using descriptive statistics such as frequencies, percentages, means, and standard deviations. Inferential statistics including one sample t-tests and chi-square.

### **RESULTS/ DISCUSSION**

### **RESEARCH QUESTION ONE**

What is the knowledge and awareness levels of pregnant women regarding potential birth complications?

Table 1: Mean Score Response on the Attitude of Health Care Workers towards the Prevention of COVID-19 in Uyo L.G.A.

COVID 20 III Gyo LiaiAi					
Statement	N	Min	Max	Mean	S.D
I am aware of the signs and symptoms of potential birth complications.	179	2	4	3.65	.543
I understand the importance of seeking immediate medical attention if complications arise during pregnancy.	179	2	4	3.53	.584
I have received adequate information from healthcare providers about possible birth complications.	179	1	4	3.26	.815
I am knowledgeable about the different types of birth complications that can occur.	179	1	4	3.49	.714



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VUL.IZ NU.I, JULT ZUZ4, NEW TUI'K LILY. 133N: A	1'1				
I feel confident in my ability to recognize and respond to potential birth complications.	179	1	4	3.53	.647
Cluster Mean				3.50	

Field Survey, 2024; Criterion Mean = 2.5

The result presented in Table 1 reveals the summary of the sample mean score for items 11 - 15, which ranges from 3.26-3.65 were above the criterion mean of 2.5. The cluster mean of 3.50 was also greater than the criterion mean of 2.5. This implies that the knowledge and awareness levels of pregnant women regarding potential birth complications was high.

**Research Question Two** 

What is the influence of antenatal care attendance on birth preparedness and complication readiness?

Table 2: Mean Analysis of the Influence of Antenatal Care Attendance on Birth Preparedness and Complication Readiness

	complication readiness					
S/N	Statement	SA	Α	D	SD	Total
16	Regular antenatal care visits have	123	50	6	0	179
	helped me prepare for childbirth.	(68.7%)	(27.9%)	(3.4%)	(0%)	(100%)
17	Attending antenatal care sessions has	106	85	8	0	179
	increased my awareness of potential birth complications.	(59.2%)	(36.3%)	(4.5%)	(0%)	(100%)
18	The information provided during	83	67	24	5	179
	antenatal care visits has made me feel more confident about my birth plan.	(46.4%)	(37.4%)	(13.4%)	(2.8%)	(100%)
19	Antenatal care attendance has improved	105	64	5	5	179
•	my readiness to handle any complications during delivery.	(58.7%)	(35.7%)	(2.8%)	(2.8%)	(100%)
20	I believe that my antenatal care visits	107	63	6	3	179
	have equipped me with the necessary knowledge to ensure a safe delivery.	(59.8%)	(35.2%)	(3.3%)	(1.7%)	(100%)

Field survey, 2024

The result presented in Table 2 reveals the summary of the reveals that the percentage response of the influence of antenatal care attendance on birth preparedness and complication readiness. Regular antenatal care visits have helped me prepare for childbirth were agreed (96.6%), disagreed (3.4%). Attending antenatal care sessions has increased my awareness of potential birth complications were agreed (95.5%), disagreed (4.5%). The information provided during antenatal care visits has made me feel more confident about my birth plan were agreed (83.8%), disagreed (16.2%). Antenatal care attendance has improved my readiness to handle any complications during delivery were agreed (94.4%), disagreed (5.6%). I believe that my antenatal care visits have equipped me with the necessary knowledge to ensure a safe delivery were agreed (95%), disagreed (5%). The analysis reveals that the average percentage response of the influence of antenatal care attendance on birth preparedness and complication readiness is agreed (93.06%), disagreed (6.94%).

### **TESTING OF HYPOTHESES**

#### **HYPOTHESIS ONE**





Ho<sub>1</sub>: There is no significant knowledge and awareness levels of pregnant women regarding potential birth complications.

Table 3: One sample t-test analysis of the Significant Knowledge and Awareness Levels of Pregnant Women Regarding Potential Birth Complications

				Referenc			
		Sample Mean		e Mean			
Variable	N	(X)	S.D	μ	t-cal	P-value	<b>Decision</b>
<b>Knowledge and</b>	179	17.45	1.935	12.5	34.246	.000	Reject HO
<b>Awareness Levels of</b>							
<b>Pregnant Women</b>							
<b>Regarding Potential</b>							
<b>Birth Complications</b>							

p≤ .05, df = 178

The entries in Table 3 have shown the overall significant knowledge and awareness levels of pregnant women regarding potential birth complications as in the sample was represented by mean value of 17.45. When this sample mean of 17.45 was compared with the reference mean (or hypothesized mean) of 12.5, it yielded a t-value of 34.246. The P-value of .000 at 178 degree of freedom is less than the alpha level of .05. With this result the null hypothesis which states that there is no significant knowledge and awareness levels of pregnant women regarding potential birth complications is rejected and the alternative hypothesis retain. This means that there is a significant knowledge and awareness levels of pregnant women regarding potential birth complications. The finding is supported by Iliyasu et al. (2019) who found that while 65% of the women had attended at least one ANC visit, only 38% could identify at least three danger signs during pregnancy, such as severe abdominal pain, vaginal bleeding, and swelling of the hands/face. It also corroborates with the findings of Chaurasia (2020) who found that women who received antenatal education were significantly more likely to be aware of key maternal health issues, including the benefits of skilled birth attendance and the need for emergency obstetric care.

#### **HYPOTHESIS TWO**

Ho<sub>2</sub>: There is no significant influence of antenatal care attendance on birth preparedness and complication readiness.

Table 4: Chi-square  $(\chi^2)$  Analysis of Significant Influence of Antenatal Care Attendance on Birth Preparedness and Complication Readiness

COLUMN										
			SD	D	Α	SA	Total X	<sup>2</sup> cal	χ² crit	P-value
ROW	1	Count	0	6	50	123	179			
		Expected Count	2.5	9.6	64.4	102.5	179.0			
	2	Count	0	8	85	106	199			
		Expected Count	2.8	10.7	71.6	114.0	199.0			
	3	Count	5	24	67	83	179			
		Expected Count	2.5	9.6	64.4	102.5	179.0	51.906ª	21.03	.000
	4	Count	5	5	64	105	179			



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		Expected Count	2.5	9.6	64.4	102.5	179.0	
	5	Count	3	6	63	107	179	
		Expected Count	2.5	9.6	64.4	102.5	179.0	
Total		Count	13	49	329	524	915	
		Expected Count	13.0	49.0	329.0	524.0	915.0	

<sup>\*</sup>Significant at P = .05, df = 12

The analysis in Table 4 above shows a calculated  $\chi^2$  – value of 51.906 greater than the critical  $\chi^2$ -value of 21.03 at 21 degree of freedom. Also the proportionate value (P-value) of .000 is less than the alpha value ( $\alpha$ -value) of .05. Since the P-value is less than the  $\alpha$ -value, the null hypothesis which predicted that there is no significant influence of antenatal care attendance on birth preparedness and complication readiness is rejected in favour of the alternative hypothesis. This therefore means that there is a significant influence of antenatal care attendance on birth preparedness and complication readiness. This finding is supported by Markos and Bogale (2017) who found a significant association between the number of antenatal care (ANC) visits and birth preparedness and complication readiness (BPCR). It also corroborates with the findings of Wangui et al. (2018) who found that women who attended ANC were more likely to seek delivery services at health facilities.

#### CONCLUSION

The study concludes that birth complication among pregnant women attending Ikot Ebok Primary Health Centre in Eket is significantly influenced by knowledge and awareness levels of pregnant women, and the influence of antenatal care attendance on birth preparedness and complication readiness. The result of the data analysis concluded that the knowledge and awareness levels of pregnant women regarding potential birth complications is high. It also revealed that there is a significant influence of antenatal care attendance on birth preparedness and complication readiness. These findings highlight the importance of comprehensive antenatal education and tailored interventions to ensure better maternal health outcomes.

### **RECOMMENDATIONS**

- Increase Access to Antenatal Care: Improve access to and the quality of antenatal care services to ensure that all pregnant women can attend regular check-ups and receive timely information and support.
- ii. Policy Advocacy: Advocate for policies that promote accessible, inclusive, and high-quality maternal healthcare services.





#### REFERENCES

- Asamoah, B. O., Moussa, K. M., Stafström, M., & Musinguzi, G. (2017). Distribution of causes of maternal mortality among different socio-demographic groups in Ghana; a descriptive study. *BMC Public Health*, 11(1), 1-7.
- Berhane, Y., & Enquselassie, F. (2016). Knowledge and practices of mothers towards maternal and neonatal health in Addis Ababa, Ethiopia. *Ethiopian Journal of Health Development*, 30(2), 77-87.
- Campbell, O. M., & Graham, W. J. (2006). Strategies for reducing maternal mortality: Getting on with what works. *The Lancet*, *368*(9543), 1284-1299. https://doi.org/10.1016/S0140-6736(06)69381-1
- Chaurasia, A. R. (2020). Impact of socio-economic disparities on maternal health care utilization in India. *Journal of Public Health, 42*(4), 1-10.
- Doctor, H. V., Olatona, F. A., & Olubosede, O. A. (2020). Healthcare system factors influencing maternal healthcare utilization in Nigeria. *BMC Health Services Research*, 20(1), 833.
- Gabrysch, S., & Campbell, O. M. (2019). Still too far to walk: Literature review of the determinants of delivery service use. *BMC Pregnancy and Childbirth, 9*(1), 34.
- Iliyasu, Z., Galadanci, H. S., & Abubakar, I. S. (2019). Predictors of maternal healthcare utilization in Kano, Northern Nigeria: Results from a cross-sectional study. BMC Pregnancy and Childbirth, 19(1), 1-9.
- Kuganab-Lem, R. B., Dogudugu, R., & Kanton, L. (2019). Birth preparedness and complication readiness among women in Navrongo Health Demographic Surveillance System: 2013. *PLoS ONE, 14*(5), e0216164.
- Lund, S., Rasch, V., Hemed, M., Boas, I. M., Said, A., Said, K., ... & Nielsen, B. B. (2019). Mobile phone intervention reduces perinatal mortality in Zanzibar: secondary outcomes of a cluster-randomised controlled trial. *BMC Pregnancy and Childbirth*, 19(1), 1-11.
- Markos, D., & Bogale, D. (2017). Birth preparedness and complication readiness among women of childbearing age group in Goba Woreda, Oromia Region, Ethiopia. BMC Pregnancy and Childbirth, 17(1), 1-6.
- Markos, D., & Bogale, D. (2017). Birth preparedness and complication readiness among women of childbearing age group in Goba Woreda, Oromia Region, Ethiopia. BMC Pregnancy and Childbirth, 17(1), 1-6.
- Mbalinda, S. N., Nakimuli, A., Kakaire, O., Osinde, M. O., Kakande, N., & Kaye, D. K. (2014). Does knowledge of danger signs of pregnancy predict birth preparedness? A critique of the evidence from women admitted with pregnancy complications. *Health Research Policy and Systems, 12*(1), 1-7.
- McPherson, R. A., Khadka, N., Moore, J. M., & Sharma, M. (2006). Are birth-preparedness programmes effective? Results from a field trial in Siraha District, Nepal. *Journal of Health, Population, and Nutrition, 24*(4), 479-488.
- Moyer, C. A., Adongo, P. B., Aborigo, R. A., Hodgson, A., Engmann, C. M., & DeVries, R. (2014). "It's up to the woman's people": How social factors influence facility-based delivery in rural Northern Ghana. *Maternal and Child Health Journal*, 18(1), 109-119. https://doi.org/10.1007/s10995-013-1240-y
- Mushi, D., Mpembeni, R., & Jahn, A. (2018). Effectiveness of community-based safe motherhood promoters in improving the utilization of obstetric care. *BMC Pregnancy and Childbirth*, 10(1), 1-9.
- Paudel, M., Shrestha, S., & Tandukar, R. (2018). Cultural factors influencing the preference for home births in rural Nepal: a qualitative study. *BMC Pregnancy and Childbirth*, 18(1), 1-10.
- Phommachanh, S., Essink, D. R., de Vries, S. G., & Broerse, J. E. W. (2021). Perceived barriers in utilizing maternal and child health services in the Lao People's Democratic Republic: a qualitative study. BMC Health Services Research, 21(1), 1-12.
- Thaddeus, S., & Maine, D. (1994). Too far to walk: Maternal mortality in context. *Social Science & Medicine*, 38(8), 1091-1110. https://doi.org/10.1016/0277-9536(94)90226-7





- Tsegaye, R., Ayele, T. A., & Gelaw, Y. A. (2020). Determinants of birth preparedness and complication readiness among pregnant women attending antenatal care at primary health facilities in Ethiopia. *International Journal of Women's Health, 12*, 101-109.
- Wangui, E. M., Kimani, M. N., & Mugo, N. W. (2018). Antenatal care attendance and health facility delivery in rural Kenya: A cross-sectional study. *BMC Pregnancy and Childbirth*, 18(1), 1-8.
- Wilunda, C., Putoto, G., Manenti, F., Castiglioni, M., Azzimonti, G., Ediale, B., ... & Atzori, A. (2017). Measuring Equity in Utilization of Antenatal Care in Rural Communities of Kenya: A Cross-Sectional Study Using Household Survey Data. *International Journal for Equity in Health, 16*(1), 1-11.

