* **KNOWLEDGE, ATTITUDE, AND PERCEPTION OF BIRTH PREPAREDNESS AND COMPLICATION READINESS AMONG ANTENATAL CLINIC ATTENDEES AT THE UNIVERSITY OF NIGERIA TEACHING HOSPITAL (UNTH), ENUGU**

**ABSTRACT**

* Background: Maternal and neonatal morbidity and mortality remain disproportionately high in Sub-Saharan Africa, including Nigeria. Birth Preparedness and Complication Readiness (BPCR) is a key strategy for promoting safe pregnancies and deliveries, especially in resource-constrained settings. However, the effectiveness of BPCR implementation and its impact on maternal health outcomes in Nigeria require further investigation.
* Objective: To assess the knowledge, attitude, and perception of birth preparedness and complication readiness among antenatal clinic attendees at the University of Nigeria Teaching Hospital (UNTH), Enugu.
* Methods: This cross-sectional descriptive study of 100 pregnant women attending the antenatal clinic at the University of Nigeria Teaching Hospital (UNTH), Enugu was used.. Data was collected using a self-administered, semi-structured questionnaire, which incorporated the JHPIEGO tool for assessing knowledge of danger signs during pregnancy, childbirth, and the postpartum period. Descriptive and inferential statistics was done using SPSS, and results were summarized into percentages and associations.
* Results: The majority of respondents (94%) could identify at least one danger sign during pregnancy, 97% during delivery, and 90% in the immediate postpartum period. Overall, 66% demonstrated good knowledge of BPCR concepts. Positive attitudes towards birth preparedness were observed in 83% of participants, while 72% reported feeling prepared for complications. Access to transportation for emergencies was high (87%). Parity emerged as a statistically significant factor associated with BPCR knowledge and complication readiness (p=0.003).
* Conclusion: The findings demonstrate high levels of awareness regarding danger signs across pregnancy stages and generally positive attitudes towards birth preparedness. With two-thirds of participants showing good BPCR knowledge and strong emergency preparedness indicators, the study recommends effective maternal health education in the community. Parity emerged as a key determinant of birth preparedness, indicating the more interactive interventions depending on the number of previous pregnancies.
* Keywords

Birth Preparedness, Complication Readiness, Knowledge, Attitude, Perception

**INTRODUCTION**

Maternal mortality remains a significant global health concern, disproportionately affecting developing countries. [In 2020, approximately 287,000 women died due to complications related to pregnancy and childbirth](https://www.who.int/news-room/fact-sheets/detail/maternal-mortality). [Almost 95% of these deaths occurred in low and middle-income](https://www.who.int/news-room/fact-sheets/detail/maternal-mortality) countries [(1)](https://www.zotero.org/google-docs/?nPbpg2). The chances of dying from pregnancy-related complications are significantly higher in developing countries compared to developed countries. A woman’s lifetime risk of maternal death is the probability that a 15-year-old woman will eventually die from a maternal cause. These deaths are largely preventable through access to quality maternal healthcare services, including skilled birth attendance and timely management of complications. To help ensure such access to care, Birth Preparedness and Complication Readiness (BPCR) is a comprehensive strategy that empowers pregnant women and their families to plan for normal birth and anticipate potential complications, thereby facilitating prompt access to appropriate care[(2)](https://www.zotero.org/google-docs/?bFtKNv) [(3)](https://www.zotero.org/google-docs/?RxDnmS).

Sub-Saharan Africa bears the heaviest burden of maternal mortality globally. Three of the five countries with the highest MMR in 2020 are in Sub-Saharan Africa, with Nigeria the third country on the list having an MMR of 1047 per 100, 000 live births [(4)](https://www.zotero.org/google-docs/?xPAsau). The pooled maternal mortality ratio for Nigeria derived from a 2023 meta-analysis with reported data for 96 health facilities was 1470 per 100,000 live births which still remains alarmingly high [(5)](https://www.zotero.org/google-docs/?ZC5zu9).

Despite various initiatives to improve maternal health, including the Safe Motherhood Initiative launched since 1987, the trend still needs specialized interventions. Notably, the majority of these deaths occur during labor and the postpartum period, often resulting from complications such as hemorrhage, prolonged labor, and eclampsia [(6)](https://www.zotero.org/google-docs/?IAkR6M).Delays in seeking, reaching, and receiving appropriate care are major contributing factors to these deaths [(3)](https://www.zotero.org/google-docs/?kmuKvN)[(7)](https://www.zotero.org/google-docs/?rb36JG)

This underscores a critical gap in the effective implementation and utilization of skilled maternal healthcare services, particularly birth preparedness and complication readiness (BPCR) strategies. BPCR encompasses several key elements, including knowledge of danger signs during pregnancy, childbirth, and the postpartum period [(2)](https://www.zotero.org/google-docs/?IhfYkj) [(9)](https://www.zotero.org/google-docs/?S2o5FF) [(8)](https://www.zotero.org/google-docs/?Lkrjkn). The World Health Organization emphasizes that receiving care from a skilled provider (doctor, nurse, or midwife) during childbirth is the single most important intervention in safe motherhood [(2)](https://www.zotero.org/google-docs/?XnvZAV).

Existing antenatal care in Nigeria often follows a traditional risk-assessment approach rather than the goal-oriented interventions of focused antenatal care, which includes BPCR. (8, 9) Also, cultural beliefs and perceptions often influence women's preparedness for childbirth [(8,9)](https://www.zotero.org/google-docs/?aqegSI). Some studies report that women's perception of birth as a normal event reduces the urgency to plan for facility births, while others highlight beliefs that pregnancy outcomes are predetermined, negating the need for preparedness [(9)](https://www.zotero.org/google-docs/?FG1qfN)[(10)](https://www.zotero.org/google-docs/?fjUs67).

The aim of this study is to to assess the knowledge, attitude, and perception of BPCR among antenatal clinic attendees. It further investigated the influence of factors like parity and education level on BPCR. The findings of this study are crucial for informing public health interventions aimed at reducing maternal mortality and morbidity in Nigeria.

**METHODOLOGY**

* Study Design and Location
* A cross-sectional design for this study was adopted and conducted in University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu State, Nigeria, a tertiary healthcare facility.
* Study Population and Sampling
* The study population consisted of 100 pregnant women attending the antenatal clinic at UNTH between March 25 and April 20, 2024. Inclusion criteria were: all pregnant women attending ANC at UNTH during the period of data collection, being either in their first or second trimester of pregnancy, who were fully booked for ANC, and who consented to participate. Women who were mentally or physically too ill to participate were excluded. A simple random sampling technique was employed to recruit 100 participants.
* Data Collection Instrument:
* Data were collected using a semi-structured, self-administered questionnaire.
* The questionnaire design was guided by the JHPIEGO tool for assessing danger signs during pregnancy, childbirth, and the postpartum period questions were adapted to suit the Nigerian setting.

The questionnaire has 6 sections.

* Section A assessed socio-demographic characteristics of the respondents including: age, occupation, monthly family income, marital status, spouse occupation, religion, ethnicity, highest level of education, and type of residential apartment.
* Section B assessed obstetric history of the respondents, including: gravida, history of ANC in previous pregnancies, outcome of previous pregnancies, last menstrual period, gestational age, expected date of delivery, gestational age at booking, tetanus toxoid vaccination, IPT and number of ANC visits.
* Section C assessed the knowledge of birth preparedness and complication readiness. This section determined if respondents had received health education at the clinic, what topics were covered and assessed their knowledge of danger signs in pregnancy, during labor and delivery, and in the immediate postpartum period.
* Section D assessed the respondents’ attitude towards birth preparedness and complication readiness using a Likert scale, ranging from strongly agree to strongly disagree.
* Section E assessed the respondents’ perception towards birth preparedness and complication readiness using a Likert scale, ranging from strongly agree to strongly disagree
* Section F assessed factors affecting birth preparedness and complication readiness. Respondents were asked about factors that affected their birth preparedness and complication readiness using a Likert scale ranging from strongly agree to strongly disagree.

Data Analysis:

* Data were analyzed using SPSS version 26. The data was reviewed and cleaned before analysis. Descriptive statistics, including frequencies and percentages, were used to summarize socio-demographic characteristics and BPCR knowledge, attitudes, and perceptions. Chi-square tests were employed to assess associations between socio-demographic variables and BPCR outcomes. A p-value less than 0.05 was considered statistically significant.

Ethical Consideration:

* Ethical approval for the study was obtained from the Health Research Committee of
* University of Nigeria Teaching Hospital Health Research Ethics Committee with certificate number: UNTH/ HREC/2024/04/962.
* The respondents were given full information about the purpose and significance of the study then, informed consent was obtained from all participants, before data collection. The respondents were made anonymous as personal identification details were not requested and they were assured that their refusal to participate would not affect them if they declined participation. The questionnaires were then retrieved after completion.

**RESULTS**

A total of 100 pregnant women completed the questionnaire, representing a 95.2% response rate. Table 1 presents the socio-demographic characteristics of the study participants. The majority of respondents were aged 21-30 years (61%), married (79%), employed (98%), Christian (94%), and of Igbo ethnicity (88%). Educational attainment was high, with 75% having attained tertiary education.

Table 1: Socio-demographic characteristics of respondents

|  |  |  |
| --- | --- | --- |
| Variables | Frequency | Percentage (%) |
| Age  21-30  31-40 | 61  39 | 61%  39% |
| Parity  0-1  2-4 (Multi)  >/= 5 (Grand Multi) | 29  58  13 | 29%  58%  13% |
| Occupational Status  Employed  Unemployed | 98  2 | 98%  2% |
| Monthly Income (in naira)  >/= 100,000  > 100,000 | 73  27 | 73  27% |
| Marital Status  Single  Married  Divorced  Widowed | 15  79  3  3 | 15%  79%  3%  3% |
| Spouse’ Occupational Status  Employed  Unemployed | 81  19 | 81%  19% |
| Religion  Christianity  Islam  African Traditional Religion | 94  4  2 | 94%  4%  2% |

|  |  |  |
| --- | --- | --- |
| Ethnicity  Igbo  Yoruba  Hausa  Others | 88  6  4  2 | 88%  6%  4%  2% |
| Respondents’ Highest level of education  No formal education  Primary  Secondary  Tertiary | 3  6  16  75 | 3%  6%  16%  75% |
| Type of Residential Apartment  One room  Two rooms  Two room bedroom flat  Three bedroom flat  Duplex | 11  24  30  20  12  3 | 11%  24%  30%  20%  12%  3% |

Knowledge of BPCR was assessed based on the ability to identify danger signs and awareness of key BPCR components. Of the 100 respondents, 94% of respondents correctly identified at least one danger sign during pregnancy, 97% during delivery], and 90% in the postpartum period]. Overall, 66% demonstrated good knowledge of BPCR concepts], defined as the ability to spontaneously identify four or more danger signs across the three periods, and 34% had poor knowledge.

Table 2: Knowledge scores of Respondents

|  |  |  |
| --- | --- | --- |
|  | Count | Percentage |
| Poor knowledge scores | 34 | 34% |
| Good knowledge scores | 66 | 66% |

Responses of the respondents in this section were categorized into Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree.

Attitudes towards BPCR were generally positive, 98% of respondents believe that antenatal care is essential for every pregnancy, and 91% support the WHO recommendation of at least eight antenatal visits. 91% recognize the urgency of seeking medical care for vaginal bleeding during pregnancy or in the postpartum period. Similarly, 95% believe in the necessity of early ultrasounds, routine investigations, and antenatal drugs and vaccines to prevent fetal anomalies and birth complications

Only 35% strongly agreed and 36% agreed that medical care should be sought for swollen hands or face during pregnancy, and 46% strongly agreed and 30% agreed that medical care is needed for blurred vision during pregnancy. Additionally, only 45% strongly agreed and 31% agreed with identifying a blood donor in case a transfusion is needed.

Table 3: Attitude Towards Birth Preparedness and Complication Readiness

n = 100

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Question | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
| You should receive antenatal care during every pregnancy | 74% | 24% | 1% | 0% | 0% |
| It is important to adhere to WHO recommendation of at least 8 antenatal visits | 57% | 34% | 6% | 1% | 0% |
| You should seek medical care if you notice vaginal bleeding during pregnancy or first two days after delivery | 68% | 23% | 7% | 1% | 0% |
| You should seek medical care if you notice swollen hands or face | 35% | 36% | 17% | 8% | 2% |
| You should seek medical care if you notice blurred vision during pregnancy | 46% | 30% | 16% | 2% | 2% |
| You should have identified where to deliver by the 3rd trimester of pregnancy | 52% | 33% | 8% | 5% | 1% |
| You should have started saving money and buying materials for delivery by the 3rd trimester of pregnancy | 64% | 27% | 4% | 4% | 0% |
| You should have made arrangements for transportation for delivery in case of emergency | 58% | 31% | 9% | 1% | 0% |
| You should have identified a blood donor in case need for blood transfusion arises | 45% | 31% | 18% | 3% | 2% |
| You should have discussed the plan with any of your family members or friends that lives with you | 52% | 27% | 15% | 5% | 0% |
| Early ultrasound scan, routine investigations and taking antenatal drugs and vaccines is necessary in preventing fetal anomalies and birth complications. | 76% | 19% | 3% | 0% | 0% |

Perceptions of BPCR practices were also largely favorable. 93% of respondents believe a delivery location should be planned in advance, and 92% believe transportation to the birth location should be arranged beforehand. Similarly, 76% believe pregnant women should be empowered to make decisions about their pregnancy and delivery. 46% believe that the husband/partner should be present during delivery, and only 55% believe that giving birth is primarily a woman's concern and that the husband/partner's contribution is minimal. 76% believe that the family should provide adequate transportation during antenatal visits and delivery

Table 4: Perception Towards Birth Preparedness and Complication Readiness

n = 100

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Statement | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
| You should have planned ahead of time where you will deliver your baby: whether at home or at a health facility. | 51% | 42% | 5% | 1% | 0% |
| You should have planned ahead of time how you will get to the place where you will give birth | 51% | 41% | 6% | 0% | 0% |
| It is necessary for your husband/partner to accompany you to antenatal clinic visit | 33% | 24% | 33% | 5% | 4% |
| It is necessary for your husband/partner to be bedside when you are giving birth | 24% | 24% | 32% | 13% | 5% |
| It is necessary for your family to adequately provide means of transportation during antenatal clinic visit and delivery | 44% | 32% | 19% | 3% | 1% |
| It is necessary to empower and support pregnant women in good decision making for safe pregnancy and delivery | 67% | 26% | 4% | 0% | 0% |
| Giving birth is mostly a woman’s matter, her husband/partner has little to contribute. | 15% | 10% | 11% | 23% | 40% |

A large percentage of respondents (84%) agree that they have the full support of their partner during pregnancy and delivery, 81% agree that they and their partner have sufficient income. 66% of respondents strongly agreed or agreed that they personally make the final decisions in matters of birth preparedness. Interestingly, 30% of respondents felt that traditional and cultural beliefs significantly influence their decision-making. 70% of respondents reported that previous birth experiences helped them prepare for their current pregnancy. Parity (number of previous births) shows a statistically significant association with birth complication readiness (p = 0.003)

Table 5: Factors Affecting Birth Preparedness and Complication Readiness

n = 100

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Statement | Strongly agree (%) | Agree (%) | Neutral (%) | Disagree (%) | Strongly disagree (%) |
| You enjoy the full support of your partner during this pregnancy, in preparing for delivery and any complication that may arise | 49 | 35 | 5 | 3 | 7 |
| Your income and that of your partner is sufficient to support you during this pregnancy and preparing for delivery | 43 | 38 | 4 | 8 | 7 |
| There is ready and available means of transportation during this pregnancy in the event of an emergency | 41 | 46 | 8 | 5 | 0 |
| You have adequate level of education on health and birth preparedness and complication readiness | 45 | 32 | 22 | 22 | 0 |
| There is an easily accessible and adequate health service for birth preparedness and complication readiness | 44 | 39 | 15 | 2 | 0 |
| There is readily available skilled birth attendant for birth preparedness and complication readiness | 43 | 40 | 14 | 3 | 0 |
| Knowledge and experience from previous delivery have helped to prepare you for this current pregnancy, birth preparedness and complication readiness | 46 | 24 | 18 | 24 | 7 |
| Your traditional and cultural beliefs have a huge influence on decisions you would make for birth preparedness and complication readiness | 16 | 14 | 26 | 22 | 21 |
| You make the final decision in matters of birth preparedness and complication readiness for this pregnancy | 42 | 24 | 22 | 7 | 5 |
| Your partner makes the final decision in birth preparedness and complication readiness for this pregnancy | 15 | 16 | 27 | 22 | 20 |

The association between sociodemographic variables and BPCR complication readiness was assessed using chi-square analysis. Parity emerged as a statistically significant factor (p=0.003) , with multiparous women demonstrating higher levels of complication readiness compared to primigravidas No significant associations were found between complication readiness and age, marital status, education, occupation, or household income.

Table 6: Factors associated with birth preparedness among study respondents

n = 100

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Birth complication readiness | | Chi Square | p value |
|  | Good | Poor |  |  |
| Age |  |  |  |  |
| < 25 | 24 | 7 | 3.106 | 0.078 |
| ≥ 25 | 47 | 22 |  |  |
| Marital status |  |  |  |  |
| Married | 58 | 13 | 0.289 | 0.591 |
| Single | 21 | 8 |  |  |
| Parity |  |  |  |  |
| 0 – 1 | 23 | 6 | 11.618 | 0.003 |
| 2 – 4 | 46 | 12 |  |  |
| ≥ 5 | 2 | 11 |  |  |
| Level of education |  |  |  |  |
| Formal education | 1 | 1 | 0.092 | 0.762 |
| No formal education | 70 | 28 |  |  |
| Occupational status |  |  |  |  |
| Employed | 70 | 28 | 2.246 | 0.134 |
| Not Employed | 1 | 1 |  |  |
| Household income |  |  |  |  |
| ≤ 100,000 | 52 | 21 | 1.814 | 0.178 |
| > 100,000 | 19 | 8 |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Birth complication readiness | | Chi Square | p value |
|  | Good | Poor |  |  |
| Age |  |  |  |  |
| < 25 | 24 | 7 | 3.106 | 0.078 |
| ≥ 25 | 47 | 22 |  |  |
| Marital status |  |  |  |  |
| Married | 58 | 13 | 0.289 | 0.591 |
| Single | 21 | 8 |  |  |
| Parity |  |  |  |  |
| 0 – 1 | 23 | 6 | 11.618 | 0.003 |
| 2 – 4 | 46 | 12 |  |  |
| ≥ 5 | 2 | 11 |  |  |
| Level of education |  |  |  |  |
| Formal education | 1 | 1 | 0.092 | 0.762 |
| No formal education | 70 | 28 |  |  |
| Occupational status |  |  |  |  |
| Employed | 70 | 28 | 2.246 | 0.134 |
| Not Employed | 1 | 1 |  |  |
| Household income |  |  |  |  |
| ≤ 100,000 | 52 | 21 | 1.814 | 0.178 |
| > 100,000 | 19 | 8 |  |  |

**DISCUSSION**

This study investigated the knowledge, attitude, and perception of Birth Preparedness and Complication Readiness (BPCR) among antenatal care attendees at the University of Nigeria Teaching Hospital (UNTH) Enugu. A total of 100 pregnant women participated, with a 95.2% response rate. The findings revealed high levels of knowledge and positive attitudes towards BPCR among the participants. Overall, 66% demonstrated good knowledge of BPCR concepts, while 34% had poor knowledge. Regarding attitudes, 98% believed antenatal care was essential, and 91% supported the WHO recommendation of at least eight antenatal visits. Perceptions of BPCR practices were also largely positive, with 93% believing a delivery location should be planned in advance and 92% emphasizing pre-arranged transportation. However, only parity significantly affected birth complication readiness (p=0.003), with multiparous women showing higher preparedness than primigravidas. No other socio-demographic factors like age, marital status, education, occupation, or income showed a significant association.

The findings of this study reveal that 66% of respondents demonstrated good knowledge of Birth Preparedness and Complication Readiness (BPCR), which is consistent with similar studies conducted in Nigeria. For instance, studies from Edo and Ibadan reported good BPCR knowledge among 60.4% and 86.2% of pregnant women, respectively [(11)](https://www.zotero.org/google-docs/?c9t5V9) [(12)](https://www.zotero.org/google-docs/?0EhzJW) . In contrast, a study in Abakaliki, southeast Nigeria, showed lower rates with a BPCR index of 41.9%, where 44.9% demonstrated adequate birth preparedness knowledge and 36.9% showed sufficient complication readiness [(13)](https://www.zotero.org/google-docs/?kfbbLQ) . A particularly notable finding in our study was the high percentage of women who could identify danger signs across different stages: 94% during pregnancy, 97% during delivery, and 90% postpartum. These rates are substantially higher than those reported in Ogun state, where knowledge of obstetric danger signs was considerably lower: 45.8% during pregnancy, 46.3% during delivery, and 47.2% postpartum [(14)](https://www.zotero.org/google-docs/?Pwmo6p).

Similarly, in Ethiopia, awareness of danger signs was markedly lower, with only 37.83% of respondents able to mention at least two key obstetric danger signs during pregnancy, 40% identifying three signs during childbirth, and 28.70% recognizing at least two signs during the postpartum period [(15)](https://www.zotero.org/google-docs/?YlwzUR). While our findings align with the general trend of moderate BPCR knowledge levels among pregnant women in Nigeria, they diverge from some international studies. For example, research conducted in Nairobi and southwest Ethiopia reported lower knowledge levels, with 53.5% and 57.6% of respondents respectively demonstrating low BPCR knowledge [(16)](https://www.zotero.org/google-docs/?GFjUXN)[(17)](https://www.zotero.org/google-docs/?AEyTiF). These disparities might be attributed to various factors, including differences in study design, sample characteristics, and assessment tools. Socio-cultural contexts and access to healthcare information likely contribute to these differences in BPCR knowledge levels.

This study revealed favorable attitudes towards birth preparedness and complication readiness (BPCR) among pregnant women at UNTH, Enugu, with the majority of respondents (98%) acknowledging the essential nature of antenatal care. Additionally, 91% of participants supported the WHO recommendation for at least eight antenatal visits. Similar positive attitudes have been documented in Southern Nigeria and Sokoto state, attributed to women's attendance at antenatal clinics where they benefit from mutual experience sharing and repeated health education messages [(18)](https://www.zotero.org/google-docs/?d9OxhB) [(19)](https://www.zotero.org/google-docs/?iDxXw7).

Interestingly, this study identified a concerning gap between attitudes and behavioral intentions, particularly in emergency response. Only 35% of respondents strongly agreed about seeking immediate medical help for symptoms like swollen hands or face. This disconnect between knowledge and action mirrors findings from other African nations. For instance, in Kenya and Tanzania, despite high antenatal care attendance rates (96% and 98% respectively for at least one visit, and 62.5% and 62.2% for at least four visits), the proportion of women delivering at health facilities remained relatively low (61.2% and 62.6% respectively) [(20)](https://www.zotero.org/google-docs/?sjtnzT). However, the finding in this study that only 45% strongly agreed with identifying blood donors is concerning and lower than rates found in Rwanda, where 64.3% of women had arranged blood donors [(21)](https://www.zotero.org/google-docs/?xRm3ht).

This study revealed largely favorable perceptions of BPCR practices among pregnant women at UNTH, Enugu. A high proportion of respondents demonstrated understanding of key BPCR components: 93% recognized the importance of advance delivery location planning, 92% emphasized the need for pre-arranged transportation to the birth location, and 76% supported pregnant women's decision-making autonomy. This level of autonomy awareness is notably higher than findings from rural Bangladesh, where only 54.2% of women reported having autonomy in pregnancy-related decisions [(22)](https://www.zotero.org/google-docs/?GC7OR2). These findings are particularly notable when compared to a study in Ghana, where less than 15% of participants could identify at least three of the five basic components of BPCR [(23)](https://www.zotero.org/google-docs/?EHFGsO). This contrast suggests that a tertiary healthcare centre has stronger recognition of proactive planning and decision-making and educates its ANC attendees on that. Another study from northern Ghana has highlighted that district of residence and educational status significantly influence BPCR preparedness [(24)](https://www.zotero.org/google-docs/?M5ejaD). This highlights the potential impact of both geographic and socioeconomic factors on women's perceptions and preparedness levels. While geographic and socioeconomic factors influence BPCR preparedness, this study reveals that perceptions about BPCR are also shaped by complex cultural and contextual factors.

Notably, only 55% of respondents believed that giving birth is primarily a woman's responsibility, suggesting a more inclusive view of partner involvement in the birth process. This finding presents an interesting contrast with studies from Kenya, where married women demonstrated significantly higher odds of BPCR compared to unmarried women, likely due to greater spousal and familial support [(17)](https://www.zotero.org/google-docs/?8kcVWg). These variations highlight how different cultural norms and family dynamics can significantly influence childbirth-related decision-making and BPCR implementation across different regions.

This study identified parity as a significant factor associated with BPCR complication readiness (p = 0.003), suggesting that women with previous birth experiences might be better prepared for potential complications. This aligns with Studies in Kenya and Tanzania, Northern Ghana and Eastern Uganda that have shown that women with previous birth experiences, tend to have higher odds of BPCR compared to first time mothers [(20)](https://www.zotero.org/google-docs/?pkVd6j) [(24)](https://www.zotero.org/google-docs/?1c3Lhy)[(25)](https://www.zotero.org/google-docs/?If4zS7) . This suggests that prior experiences, likely coupled with spousal and familial support, contribute to better preparedness.

### One strength of this study is its use of a standardized questionnaire, specifically the JHPIEGO tool, to assess knowledge of danger signs during pregnancy, childbirth, and postpartum. This enhances the validity of the data collected and allows for comparison with other studies utilizing the same tool. The study also benefits from being conducted in a tertiary hospital setting, offering access to a relatively diverse population of pregnant women. However, the reliance on self-reported data introduces potential bias, as respondents may not accurately recall or disclose information.

**CONCLUSION AND RECOMMENDATIONS**

### This study contributes valuable insights into the current state of BPCR knowledge, attitudes, and perceptions among pregnant women attending antenatal care at UNTH Enugu in Southeast Nigeria. While the findings are generally positive, the identified gaps, particularly the influence of parity, highlight the need for continuous BPCR education and resource enhancement.

### The findings from this study have practical implications for improving antenatal care programs and birth preparedness strategies. The emphasis on the positive influence of parity on BPCR complication readiness suggests a need for specific interventions aimed at primigravidas and women with limited prior birth experiences like mentorship programs connecting experienced mothers with first-time mothers to foster peer support and knowledge sharing. Further research can be longitudinal studies assessing the impact of specific BPCR interventions on maternal and neonatal outcomes are also needed to evaluate their effectiveness and inform evidence-based practices.

Ethical approval: Ethical approval for the study was obtained from the Health Research Committee of University of Nigeria Teaching Hospital Health Research Ethics Committee with certificate number: UNTH/ HREC/2024/04/962.

Consent

As per international standards or university standards, Participants’ written consent has been collected and preserved by the author(s).

**Author contributions**

All authors contributed to the article and approved the submitted version.

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**Conflict of interest**

No Conflict of Interests

Disclaimer (Artificial intelligence)

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