**IPS Journal of Public Health**
*IPS J Public Health, 5(2): 218-225 (2025)*
*DOI:* https://doi.org/10.54117/ijph.v5i2.42

# Demographic Factors Associated With Midwives' Practice of Physiologic Birth in Birthing Facilities in Bayelsa State, Nigeria

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## Abstract

**Background:** Physiologic birth is globally recognized for its benefits in promoting maternal and neonatal health through minimal medical intervention. Despite this, the demographic factors influencing midwives' practice of physiologic birth in low-resource settings such as Bayelsa State, Nigeria, remain underexplored.
**Aim:** This study assessed the level of practice of physiologic birth among midwives and determine the demographic factors associated with their practice in birthing facilities across Bayelsa State.
**Methods:** A descriptive cross-sectional design was employed. A total of 618 licensed midwives across nine public birthing facilities participated. Data were collected using the validated Physiological Birth Practice and Outcomes Questionnaire for Midwives (PBPOQM) and analyzed using descriptive and inferential statistics, specifically chi-square tests at a 5% significance level.
**Findings:** Results revealed that 80.4% of midwives demonstrated inadequate practice of physiologic birth. Significant associations were found between physiologic birth practice and demographic factors such as age ($p < 0.001$), gender ($p < 0.001$), years of experience ($p < 0.001$), academic qualification ($p < 0.001$), type of facility ($p < 0.001$), and childbirth leadership model ($p < 0.001$). Midwives aged 40–49 years, those with 16–20 years of experience, higher academic qualifications, working in midwife-led and primary-level facilities exhibited higher levels of physiologic birth practice.
**Conclusion:** The findings highlight a critical practice gap influenced by demographic and institutional factors.

***Keywords:*** Physiologic Birth, Midwifery Practice, Demographic Factors, Low-Resource Settings

**Article History**

Received: 02 May 2025
Accepted: 12 May 2025
Published: 17 May 2025

**Scan QR code to view**



**How to cite this paper:** Kutim, I. T., Green, K., Diorgu, F. C., & Onyema, C. (2025). Demographic Factors Associated With Midwives' Practice of Physiologic Birth in Birthing Facilities in Bayelsa State, Nigeria. *IPS Journal of Public Health*, *5*(2), 218–225. https://doi.org/10.54117/ijph.v5i2.42.

## 1. Introduction

Physiologic birth, characterized by minimal medical intervention and reliance on the natural birthing processes, has garnered considerable global attention due to its association with improved maternal and neonatal health outcomes (Carpenter et al., 2022; Sandall et al., 2015). Midwives play a central role in facilitating physiologic birth, advocating practices that reduce unnecessary interventions, empower women, and foster safer childbirth experiences (Bohren et al., 2017; Prosser et al., 2018). Studies consistently demonstrate that skilled midwives proficient in evidence-based, non-pharmacological approaches such as massage therapy, aromatherapy, relaxation techniques, and acupressure significantly enhance maternal comfort and satisfaction during labour (Mascarenhas et al., 2019; Baljon et al., 2022). Moreover, the implementation of physiologic birth principles—such as freedom of movement, informed decision-making, continuous support, and culturally sensitive care—has been linked to lower healthcare costs and reduced obstetric complications, aligning closely with contemporary public health priorities (Henshall et al., 2023; Musie et al., 2019).

Despite these well-documented benefits, the uptake of physiologic birth practices varies considerably, influenced by midwives' perceptions and demographic characteristics (An et al., 2023; Coulton et al., 2022). Globally, demographic determinants, including age, education level, years of professional experience, and specific midwifery training, significantly shape midwives' practice patterns and

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perceptions toward physiologic birth (Palau-Costafreda et al., 2023). For instance, senior midwives have been reported to exhibit greater apprehension and decreased confidence toward non-interventional birth methods compared to younger, recently trained counterparts (Wong et al., 2018). Additionally, institutional norms, medical dominance, and prevailing obstetric cultures profoundly impact midwives' adherence to physiologic birth practices, creating variations in maternal care outcomes across different settings (Anna et al., 2020; Martin-Arribas et al., 2022).

In the Nigerian context, particularly Bayelsa State, the integration of physiologic birth into routine midwifery practice remains poorly understood, partly due to inadequate research. Bayelsa State, characterized by diverse cultural practices surrounding childbirth, presents unique contextual dynamics that influence midwives' attitudes and practices regarding physiologic birth. There is an evident paucity of published data highlighting how demographic factors such as midwives' age, educational qualifications, years of experience, and specific training in physiologic birth influence their clinical decisions and practices. The limited research available from African settings underscores the urgency to address these gaps, especially given Nigeria's persistently high maternal and neonatal morbidity rates and rising cesarean sections that are frequently unnecessary or avoidable.

**Statement of the Problem**

Globally, physiologic birth is increasingly advocated as an optimal childbirth approach that enhances maternal and infant health outcomes through minimal medical interventions (Carpenter et al., 2022). While research from high-income countries extensively documents the factors influencing midwives' adoption of physiologic birth practices, there is insufficient understanding of how demographic determinants specifically shape midwives' perceptions and practices in lower-resource contexts like Nigeria. The researcher observed a significant gap in published empirical evidence exploring the demographic variables influencing midwives' practice of physiologic birth within the unique cultural and institutional context of Bayelsa State, Nigeria.

Considering the critical role midwives play in determining childbirth outcomes, it is imperative to investigate demographic characteristics such as age, level of education, training backgrounds, and length of professional experience that potentially influence their practice patterns. These demographic determinants likely shape midwives' attitudes, confidence, adherence to evidence-based practices, and their ability to advocate effectively for physiologic birth amidst competing institutional and medical pressures. Without a thorough understanding of these demographic influences, strategies to optimize midwifery care, improve clinical training, and design tailored interventions that enhance the implementation of physiologic birth practices in Bayelsa State remain inadequate.

Hence, guided by the Population, Phenomena of interest, and Context (PiCo) framework, the broad question answered in this study is: "What are the demographic factors influencing midwives' practice of physiologic birth in birthing facilities in Bayelsa State, Nigeria?"

**Aim and Objectives**

This broad focus was on demographic factors influencing midwives' practice of physiologic birth in birthing facilities in Bayelsa State, Nigeria. However, two specific objectives guided the study further:

1. Assess the level of practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria.
2. Determine demographic factors associated with the practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria.

**Research Question**

Two research questions were answered in the study:

1. What is the level of practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria?
2. What are the demographic factors associated with the practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria?

**Hypothesis**

One hypothesis was postulated and tested at 0.05 alpha level
**$H0_1$:** Demographic factors are not significant associated with the practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria.

**Literature Review**

Physiologic birth refers to childbirth processes that are allowed to unfold naturally, supported by the inherent physiological mechanisms of the woman's body, without unnecessary medical interventions (McCourt, 2022; Weckend, 2023). Central to the concept is the understanding that childbirth is a holistic process encompassing physical, emotional, and psychological dimensions, which, when respected, yield improved maternal and neonatal outcomes (Leap & Hunter, 2022). Key principles underpinning physiologic birth include respecting women's autonomy, informed decision-making, ensuring continuous support and privacy, promoting freedom of movement, and using non-pharmacological pain relief techniques (Daviss & Bisits, 2020; Pickles & Herring, 2020). Importantly, the midwife plays a crucial role in supporting physiologic birth, through holistic, woman-centred care and by fostering an environment that empowers and respects women's natural childbirth abilities (Natalia, 2022; Hansard, 2020).

The present study is theoretically anchored on an integrated framework comprising the Health Belief Model (HBM), Theory of Reasoned Action (TRA), and Theory of Planned Behaviour (TPB). The HBM proposes that midwives' demographic characteristics, such as age, education, years of experience, and training, shape their perceptions of the benefits, risks, and barriers associated with practicing physiologic birth, subsequently influencing their decision to implement such practices (Smith et al., 2023). The TRA extends this theoretical lens by emphasizing how midwives'

demographic profiles influence their attitudes toward physiologic birth, as well as their adherence to subjective norms, including expectations from peers, institutional leadership, and broader professional culture (Winters, 2021). The TPB further integrates the dimension of perceived behavioural control, suggesting that demographic factors may determine midwives' perceived self-efficacy, resources, and constraints impacting their actual practice of physiologic birth (McEwan & Wills, 2021). The integration of these theories provides a robust framework to comprehensively explore how demographic factors influence midwives' decisions and actual behaviours regarding physiologic birth practices within the specific socio-cultural and institutional context of birthing facilities in Bayelsa State, Nigeria.

Empirical studies highlight various factors influencing midwives' perceptions and practices of physiologic birth. Wong et al. (2018) found senior midwives often reported apprehension towards physiologic birth due to perceived risks and negative prior experiences. Factors such as educational level and job experience have been significantly associated with positive attitudes toward physiologic birth, suggesting higher qualification and more extensive practice exposure enhance midwives' comfort and willingness to practice physiologic childbirth (Sadeghzadeh et al., 2019). Darling et al. (2021) identified organizational constraints, such as hierarchical decision-making and obstetric dominance, as significant barriers, while personal attributes like confidence and competence facilitate physiologic birth practices among midwives. Conversely, empirical evidence by Lundsber et al. (2020) indicates midwife-led facilities consistently employed fewer medical interventions and achieved similar or better maternal and neonatal outcomes compared to physician-led hospitals, thereby endorsing midwifery practice as conducive to physiologic childbirth. Reed et al. (2016) further emphasized that midwives who employ a "rites of passage" approach, emphasizing personal empowerment and intuitive birthing support, more effectively promote physiologic childbirth compared to those focusing primarily on clinical assessments or "rites of protection".

Although considerable literature explores midwives' perceptions and practices regarding physiologic birth globally, significant gaps remain, particularly in the African context. Most existing research is situated in Western or high-income countries, with limited insights from African healthcare settings (Cheyney et al., 2014; Jordaan-Schlebusch & Minnie, 2023). Additionally, while demographic variables such as educational attainment and years of experience have been explored internationally, there is scant comprehensive empirical research examining demographic determinants of midwives' practices of physiologic birth within Nigeria specifically or Africa broadly. Furthermore, previous studies have primarily focused on immediate birth outcomes, with little attention given to mid-term maternal and neonatal outcomes post-physiologic childbirth. Hence, this study addresses these gaps by focusing explicitly on demographic determinants influencing midwives' physiologic birth practices and extending the exploration of outcomes beyond the immediate postpartum period within birthing facilities in Bayelsa State, Nigeria.

## 2. Methodology

This study employed a descriptive cross-sectional research design. This design was appropriate as it enabled the researcher to quantitatively evaluate and describe associations between midwives' demographic variables (age, educational level, years of professional experience, and specific training) and their practice of physiologic birth at a single point in time. The study was conducted across selected birthing facilities in Bayelsa State, Nigeria. Bayelsa State lies between Latitude 4°15' North and Latitude 5°23' South, and Longitude 5°22' West and 6°45' East, bordered by Delta and Rivers States. Birthing services are primarily delivered through one tertiary facility (Federal Medical Centre), one secondary hospital (Diete-Koki Memorial Hospital), and seven comprehensive primary-level health centres across the state's eight local government areas.

The target population comprised 641 licensed midwives working across the nine public birthing facilities in Bayelsa State (443 midwives at FMC Yenagoa, 156 at Diete-Koki Memorial Hospital, and 42 at primary health centres). A sample size of 618 midwives was determined using Cochran's formula adjusted for finite population, considering a 95% confidence level, a 5% margin of error, and a 10% non-response rate. Proportionate stratified random sampling was employed, ensuring representativeness by facility size (FMC Yenagoa, n=427; Diete-Koki Memorial Hospital, n=149; comprehensive health centres, n=42).

Data was collected using a structured self-report instrument, the Physiological Birth Practice and Outcomes Questionnaire for Midwives (PBPOQM). The PBPOQM consists of socio-demographic variables (age, qualification, years of practice, and training) and ten items assessing midwives' frequency of physiologic birth practices on a four-point Likert scale (never=0, rarely=1, sometimes=2, always=3). Face and content validity were established through expert evaluations from senior midwifery researchers at the University of Port Harcourt. Content validity yielded a score of 0.81, signifying strong validity. Reliability was ascertained using a test-retest method with 62 midwives from the University of Port Harcourt Teaching Hospital, achieving a reliability coefficient of 0.92, indicating excellent stability of the questionnaire. Ethical approval was obtained from the University of Port Harcourt Institutional Review Board. The research complied with Helsinki Declaration principles. Participant confidentiality, anonymity, and voluntary participation were strictly ensured, and data were securely stored in locked cabinets accessible only to the researcher, ensuring ethical rigor and integrity.
Following ethical approval, data collection occurred over six weeks. Midwives voluntarily completed the questionnaire anonymously, with questionnaires securely retrieved via collection boxes placed at facility common rooms. Quantitative data were analyzed using SPSS version 26. Descriptive statistics summarized demographic data, and frequencies of practice levels. Inferential analysis employed

Chi-square tests at a significance level of 5% to assess associations between demographic variables and midwives' practices of physiologic birth.

## 3. Results

Table 1 summarizes the socio-demographic characteristics of the midwives (n = 618) who participated in the study. The age distribution of the midwives reveals that nearly half of the participants (45.0%, n = 278) were within the age range of 30-39 years. Those aged 40-49 years accounted for about one-third (33.2%, n = 205), while midwives aged between 50-59 years comprised the smallest age category at approximately one-fifth of the sample (21.8%, n = 135). This indicates a predominantly younger to middle-aged midwifery workforce within the sampled facilities. Regarding gender distribution, the midwifery workforce was overwhelmingly female, comprising 98.2% (n = 607) of participants, with male midwives accounting for only a small fraction of 1.8% (n = 11). This finding highlights the gendered nature of midwifery practice in the studied setting. In terms of years of midwifery experience, a majority of midwives had between 6 to 10 years of experience, representing 41.6% (n = 257) of respondents, followed by those with 11-15 years of experience, who constituted approximately one-third (31.4%, n = 194) of the sample. Midwives with 1-5 years of experience made up the smallest group (12.6%, n = 78), while those with 16-20 years comprised 14.4% (n = 89). This suggests that the midwives in this study generally possessed a moderate level of professional experience. Academic qualifications revealed that slightly over half of the midwives held a basic qualification of Registered Nurse and Registered Midwife (RN, RM), accounting for 51.0% (n = 315). Those possessing a Bachelor of Nursing Science (BNSc) in addition to their midwifery qualification constituted approximately one-third (31.0%, n = 192), whereas 16.7% (n = 103) had attained a master's degree (MSc) alongside their BNSc qualification. Only a small proportion (1.3%, n = 8) had progressed to obtaining a PhD. This indicates that most midwives had basic or intermediate academic qualifications, with few reaching advanced academic levels. The distribution across types of birthing facilities shows that the majority of participants (69.1%, n = 427) were employed in tertiary-level facilities, while about one-fourth (24.1%, n = 149) were based in secondary-level hospitals, and a small minority (6.8%, n = 42) worked in primary-level health facilities. This highlights the concentration of midwives in higher-level facilities within Bayelsa State. Leadership in childbirth was predominantly obstetrician-led, with a significant majority (93.2%, n = 576) of midwives working in settings where childbirth management was primarily led by obstetricians. Only 6.8% (n = 42) of midwives reported working within midwife-led teams, suggesting a predominantly medicalized childbirth environment in the studied facilities.

**Research Question 1**: What is the level of practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria?

**Table 1**: Socio-demographic characteristics

| **Categories** | **(n = 618) f (%)** |
|---|---|
| ***Age*** | |
| 30-39 | 278 (45.0) |
| 40-49 | 205 (33.2) |
| 50-59 | 135 (21.8) |
| ***Gender*** | |
| Male | 11 (1.8) |
| Female | 607 (98.2) |
| ***Years of Midwifery Experience*** | |
| 1-5 | 78 (12.6) |
| 6-10 | 257 (41.6) |
| 11-15 | 194 (31.4) |
| 16-20 | 89 (14.4) |
| ***Academic Qualification*** | |
| RN, RM | 315 (51.0) |
| RM, BNSc | 192 (31.0) |
| RM, BNSc, MSc | 103 (16.7) |
| RM, BNSc, MSc, PhD | 8 (1.3) |
| **Type of Facility** | |
| Tertiary level facility | 427 (69.1) |
| Secondary level facility | 149 (24.1) |
| Primary level facility | 42 (6.8) |
| **Leadership in childbirth** | |
| Doctor (Obstetrician-led team) | 576 (93.2) |
| Midwife (Midwife-led team) | 42 (6.8) |

*% = percent, f = frequency, n = sample size*

**Research Question 1:** What is the level of practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria?

Table 2 shows the overall level of midwives' practice of physiologic birth in Bayelsa State was inadequate (grand mean = 1.00, SD = 0.15). Specifically, 80.4% (n=497) demonstrated inadequate practice, while only 19.6% (n=121) practiced adequately. The lowest adherence was observed in routinely following physiologic birth practices (mean = 0.67, SD = 0.15). However, immediate skin-to-skin contact post-birth was universally practiced (mean = 3.00, SD = 0.00). Generally, midwives seldom facilitated spontaneous pushing, natural perineal stretching, and non-pharmacological pain management techniques, indicating widespread reliance on medical interventions. These results highlight significant gaps and limited adoption of evidence-based physiologic birth practices among midwives in the state.

**Research Question 6**: What are the demographic factors associated with the practice of physiologic birth by midwives in birthing facilities in Bayelsa State, Nigeria?

To answer Research question 6, the following null hypothesis was tested.

***Ho***: There is no significant association between demographic variables and the practice of physiologic birth among midwives in birth facilities in Bayelsa State, Nigeria.

**Table 2:** Level of practice of physiologic birth by midwives (n = 618)

| Item | Response | | | | Mean (SD) |
|---|---|---|---|---|---|
| | Never | Rarely | Sometimes | Always | |
| How frequently do you aid women to give birth "naturally" without any medical intervention of any kind where possible? | 301 | 144 | 98 | 75 | 0.91 (0.10) |
| How often do you routinely follow established physiologic birth practices during childbirth? | 385 | 101 | 82 | 50 | 0.67 (0.15) |
| Please specify in the provided space how often you apply the following techniques and principles? | | | | | 0.85 (0.12) |
| a. Allowing labour to start on its own without induction and augmentation also called the Hands off Approach. | 337 | 109 | 93 | 77 | 0.72 (0.15) |
| b. Freedom of movement during labour and adopting any comfortable position such as squatting and standing. | 371 | 100 | 98 | 49 | 0.75 (0.14) |
| c. Spontaneous pushing in non-supine positions. | 359 | 117 | 82 | 60 | 0.72 (0.15) |
| d. No-routine use of episiotomy and allowing the perineum to stretch naturally during birth. | 348 | 145 | 72 | 53 | 0.65 (0.16) |
| e. Prioritizing non-pharmacological pain control measures such as breathing, hydrotherapy, and massage. | 383 | 118 | 76 | 41 | 0.73 (0.14) |
| f. Allowing the placenta to be born naturally without routine interventions. | 368 | 114 | 72 | 64 | 0.72 (0.15) |
| g. Ensuring skin-to-skin contact between mother and infant immediately after birth | - | - | - | 618 | 3.00 (0.00) |
| **Grand mean** | | | | | 1.00 (0.15) |
| **Adequate practice** (n = 121; 19.6%) | | | | | |
| **Inadequate practice** (n = 497; 80.4%) | | | | | |

*SD = Standard deviation, Grand mean of 0.0-1.49 = Inadequate practice, 1.50-3.0 = Adequate practice*

Table 3 reveals significant associations between demographic factors and midwives' practice of physiologic birth. Age ($\chi^2 = 68.22$, $p < 0.001$), gender ($\chi^2 = 20.09$, $p < 0.001$), experience ($\chi^2 = 165.68$, $p < 0.001$), academic qualifications ($\chi^2 = 19.88$, $p < 0.001$), facility type ($\chi^2 = 244.00$, $p < 0.001$), and childbirth leadership ($\chi^2 = 153.67$, $p < 0.001$) significantly influenced practice levels. Adequate physiologic birth practices were highest among midwives aged 40-49, males, those with extensive experience (16-20 years), advanced academic qualifications, working in primary-level facilities, and those in midwife-led teams. These findings underscore the critical role demographic variables play in shaping midwifery practices towards physiologic birth in Bayelsa State.

**Table 3**: Demographic factors associated with the practice of physiologic birth (n = 618)

| Categories | Practice | | df | $\chi^2$ | p value |
|---|---|---|---|---|---|
| | Inadequate | Adequate | | | |
| ***Age*** | | | 2 | 68.22 | <0.001 |
| 30-39 | 234 | 44 | | | |
| 40-49 | 130 | 75 | | | |
| 50-59 | 133 | 2 | | | |
| ***Gender*** | | | 1 | 20.09 | <0.001 |
| Male | 3 | 8 | | | |
| Female | 494 | 113 | | | |
| ***Years of Midwifery Experience*** | | | 3 | 165.68 | <0.001 |
| 1-5 | 75 | 3 | | | |
| 6-10 | 233 | 24 | | | |
| 11-15 | 161 | 33 | | | |
| 16-20 | 28 | 61 | | | |
| ***Academic Qualification*** | | | 3 | 19.88 | <0.001 |
| RN, RM | 256 | 59 | | | |
| RM, BNSc | 149 | 43 | | | |
| RM, BNSc, MSc | 90 | 13 | | | |
| RM, BNSc, MSc, PhD | 2 | 6 | | | |
| **Type of Facility** | | | 2 | 244.00 | <0.001 |
| Tertiary level facility | 406 | 21 | | | |
| Secondary level facility | 88 | 61 | | | |
| Primary level facility | 3 | 39 | | | |
| **Leadership in childbirth** | | | 1 | 153.67 | <0.001 |
| (Obstetrician-led team) | 494 | 82 | | | |
| (Midwife-led team) | 3 | 39 | | | |

*$\chi^2$ = Chi square, n = sample size, df = degree of freedom, $p < 0.05$ is significant*

## 4. Discussion

This study revealed that the majority of midwives in birthing facilities in Bayelsa State (80.4%) exhibited inadequate practice of physiologic birth. Inadequacies were evident in spontaneous labour initiation, use of non-pharmacological pain relief, avoidance of routine episiotomy, and natural delivery of the placenta. Demographic factors such as age, gender, years of experience, academic qualification, type of facility, and childbirth leadership were significantly associated with the level of physiologic birth practice.

Several studies strongly support these findings. Sadeghzadeh et al. (2019) found that higher educational attainment and greater years of midwifery experience were significantly associated with better physiologic birth practices, mirroring this study's results. Lundsberg et al. (2020) similarly reported that midwife-led facilities showed higher adherence to natural birth principles compared to physician-led environments. Toohill et al. (2017) emphasized that organizational policies often inhibit midwives' application of physiologic birth techniques, consistent with the lower practice levels observed in obstetrician-led settings in Bayelsa. Schummers et al. (2020) also demonstrated that midwives with longer clinical exposure were more confident in employing spontaneous labour management techniques. Moreover, Reed et al. (2016) found that when midwives operate within supportive organizational cultures, adherence to evidence-based natural birthing methods improves, reinforcing the role of institutional context identified in this study. Collectively, these studies affirm the multifactorial nature of influences on physiologic birth practice among midwives.

Conversely, some studies reported divergent findings. Chen and Tan (2019) observed that younger midwives were more likely to embrace physiologic birth practices due to exposure to newer, evidence-based education, contrasting with this study's finding that older midwives (40–49 years) demonstrated better practices. Similarly, Walker et al. (2018) suggested that female midwives, due to gendered empathy towards birthing women, were more consistent in applying natural birth practices, contradicting this study's result that male midwives had higher adherence. Matta et al. (2019) highlighted that tertiary-level facilities, despite their higher resource availability, could better support physiologic births through specialized units, unlike the findings here showing higher adherence in primary facilities. Furthermore, Prosser et al. (2018) argued that midwife-obstetrician collaborations in secondary settings enhanced physiologic birth outcomes, a finding not supported by the Bayelsa study. These contradictions suggest that contextual, institutional, and cultural factors critically mediate midwifery practices across different settings.

Overall, the findings of this study highlight a critical practice gap and reinforce how midwives' demographic characteristics and organizational environments significantly influence physiologic birth practices. Theoretically, the application of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), and the Theory of Planned Behaviour (TPB) provides a coherent framework for understanding these dynamics. As posited by McEwan and Wills (2021), midwives' perceptions of barriers, such as institutional constraints and resource limitations, strongly affect their behaviour, aligning with the HBM's focus on perceived obstacles to action. Similarly, according to Winters (2021), the TRA explains how subjective norms—especially organizational leadership expectations—shape midwives' intentions to either support or deviate from physiologic birth practices. Furthermore, consistent with the TPB, midwives with greater experience and higher academic qualifications, as noted by Sadeghzadeh et al. (2019), are more likely to perceive enhanced behavioural control, thus increasing their likelihood of promoting physiologic births.

Practically, this study emphasizes the urgent need for continuous professional development, especially targeting younger and less experienced midwives. Previous studies, including Toohill et al. (2017), demonstrated that targeted training significantly improves midwives' confidence and adherence to physiologic birth principles. Policies promoting midwife-led models of care, particularly in primary and tertiary healthcare settings, should be prioritized, as evidence from Lundsberg et al. (2020) suggests that midwife-led environments yield higher rates of spontaneous, non-intervention births. Additionally, organizational culture must shift towards valuing physiologic birth by creating supportive work environments, minimizing unnecessary medical interventions, and empowering midwives with greater clinical autonomy, as advocated by Reed et al. (2016). Furthermore, midwifery education curricula should integrate experiential, hands-on training in physiologic birth techniques to enhance both competence and confidence, supporting the recommendation by Leap and Hunter (2022) that education must bridge the gap between theory and practice. In sum, both educational reforms and systemic policy changes are critical to transforming midwifery practice towards evidence-based, woman-centred physiologic birth in Nigeria and other similar low-resource settings.

## 5. Conclusion

This study revealed a critical gap in the practice of physiologic birth among midwives in birthing facilities across Bayelsa State, Nigeria, with 80.4% of midwives demonstrating inadequate adherence to key physiologic birth principles. Demographic factors—including age, gender, years of midwifery experience, academic qualification, type of facility, and childbirth leadership model—significantly influenced midwives' practices. Notably, midwives aged 40–49 years, with 16–20 years of experience, higher academic qualifications, and those working in midwife-led or primary-level facilities demonstrated better adherence to physiologic birth standards. The study underscores the influence of midwives' demographic profiles and institutional environments in shaping childbirth practices, highlighting the need for targeted interventions. The findings support the theoretical underpinning that demographic and organizational factors influence midwives' perceptions, intentions, and behaviours regarding physiologic birth, as explained by the Health Belief Model (HBM), Theory of

Reasoned Action (TRA), and Theory of Planned Behaviour (TPB). Addressing gaps in midwifery education, organizational support, and institutional policies is essential to promoting the safe, evidence-based practice of physiologic birth. Ultimately, strengthening midwives' competencies and creating enabling environments are crucial for improving maternal and neonatal health outcomes and reducing reliance on unnecessary medical interventions in Nigeria's birthing facilities.

**Recommendations**

In accordance with the findings of this study, the following were recommended:

1. Midwifery regulatory bodies and healthcare institutions should implement continuous professional development programs focused on physiologic birth principles, targeting especially younger and less experienced midwives.

In addition, healthcare policies should prioritize and expand midwife-led models of care within primary and tertiary birthing facilities to institutionalize evidence-based, woman-centred childbirth practices.

**Conflicts of Interest**

Authors declare that there is no conflict of interest

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