



Factors influencing nurses' attitudes toward evidence based practice in the management of patients with pre-eclampsia at Specialist Hospital Yola

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Abstract

The growing demand for healthcare knowledge has led to a need for a change in nursing practice. Previously, nursing relied on intuition and tradition, but now there is a shift towards evidence-based practice (EBP). EBP is a concept that has not been widely utilized by most nurses working in clinical setting in Nigeria according to previous documentation. This study examined the influence of nurses' attitude, work environment, and professional code of ethics on the adoption of evidence-based practice (EBP) in the management of patients with pre-eclampsia at Specialist Hospital Yola, Nigeria. A descriptive cross-sectional survey design was employed, with data collected from 133 registered nurses using a structured, self-administered questionnaire. Data were analyzed using descriptive statistics and regression analysis via SPSS. Findings revealed that nurses' attitudes significantly influenced the adoption of evidence-based practice ($\beta = 0.352$, $p < 0.05$), while work environment ($\beta = 0.156$, $p = 0.072$) and professional ethics ($\beta = 0.098$, $p = 0.262$) showed no statistically significant effects. The study concludes that although a positive work environment and ethical commitment are important, individual-level factors such as nurses' attitudes are more decisive in fostering EBP adoption in the studied setting. It is recommended that health institutions emphasize continuous professional development, integrate EBP skills into ethics training, and create leadership support systems that encourage evidence-based care practices. Further research is suggested to explore additional factors influencing EBP adoption, including organizational culture, leadership styles, and access to research evidence.

Keywords: Evidence-based practice, nurses' attitude, work environment, pre-eclampsia

Introduction

Evidence-based practice (EBP) in nursing refers to the integration of the best available evidence, clinical expertise, and patient preferences in making decisions about patient care. It involves the use of scientific research, clinical expertise, and patient values to guide nursing practice and improve patient outcomes. The introduction of EBP in nursing has been a significant development in the field, as it promotes a systematic and structured approach to decision-making that is grounded in reliable evidence (Melnik & Fineout-Overholt., 2022) [9].

Globally preeclampsia and eclampsia remain among the leading global threats to maternal and neonatal health (Bartal & Sibai, 2022; Garovic *et al.*, 2022) [2, 6]. According to the World Health Organization (WHO), preeclampsia affects approximately 2–8% of pregnancies worldwide (WHO, 2025) [14] annually, it is responsible for more than 500,000 fetal and neonatal deaths and approximately 46,000 maternal deaths (WHO, 2025) [14]. Additionally, it accounts 14% of maternal death globally, 22,000 maternal deaths in Asia, 3800 maternal deaths in Latin America and 150 in the Caribbean, while sub-Saharan Africa account about 16.0%, besides yearly report 25,000 maternal death in Africa, data from world health organization (Berhe *et al.*, 2020) [3].

The burden is disproportionately higher in low- and middle-income countries, where health system limitations hinder timely diagnosis and management (Pallangyo & Seif, 2023) [10]. It is noted that maternal mortality associated with eclampsia rises exponentially, with a reported case fatality rate of 42.38% in Africa, Asia, Latin America, and the Middle East compared with pregnancies unaffected by preeclampsia (Bartal & Sibai, 2022) [2]. Research conducted in Nigeria showed pre-eclampsia rates

ranging from 1.8% to 20.8% and eclampsia rates from 0.2% to 5.7%. (Akaba *et al.*, 2021 & Kooffreh *et al* 2014) [1, 7] PE/E is one of Nigeria's leading causes of maternal mortality, with an annual rate of approximately 545 maternal deaths per 100,000 live births. (Akaba *et al.*, 2021) [1] In northern Nigeria, PE/E is responsible for 40% of these maternal deaths (Machano & Joho., 2020) [8]

Despite a 45% reduction in maternal deaths over the past two decades, about 800 women still die daily from pregnancy-related complications that are largely preventable, with 99% of these deaths occurring in low- and middle-income countries (World Health Organization, 2025).

Method

This study adopted a descriptive cross-sectional survey design. The design was chosen because it allows for the collection of quantitative data from a defined population at a single point in time to examine relationships between nurses' attitudes, work environment, professional code of ethics, and adoption of evidence-based practice (EBP) in the management of patients with pre-eclampsia. The cross-sectional approach enables the identification of patterns and associations among variables without manipulating the study environment. The study was carried out at Specialist Hospital Yola, Yola North Adamawa State is a major government hospital and all registered nurses and midwives working in the maternity ward, antenatal clinic, labour ward, and emergency obstetric care units of Specialist Hospital Yola. Nurses in these departments are directly involved in the management and care of patients with pre-eclampsia. These facilities provide care for both normal and high-risk pregnancies, including the management of preeclampsia and eclampsia.

Sample Size

A total of 133 nurses as participants were selected determined using the Taro Yamane (1967) [13] formula for sample size calculation.

Sampling Technique

In the study on the factors influencing the attitude of nurses toward Evidence Based Practice in the management of patient with Pre-eclampsia in Specialist Hospital Yola. Simple random sampling technique was used to select 133 eligible Nurses for the period of data collection. This was to ensure that each participant had a known, non-zero chance of being selected, Blair (2009) [4]. This approach involved first defining our population, which includes all registered nurses and midwives working in the maternity ward, antenatal clinic, labour ward, and emergency obstetric care units of Specialist Hospital Yola, after determining the size of the stratum. The final sample was selected using a random number generator to pick participants from the list, ensuring proportional representation from the stratum. This method ensures a diverse and representative sample, providing a comprehensive insight into the varied perspectives across different healthcare roles.

Instrument for Data collection

Data was collected using a structured self-administered questionnaire developed by the researcher based on literature review. The instrument was subjected to content validity by three experts in Nursing Science and Public Health. A pilot study was conducted with 20 nurses in a different hospital, yielding a Cronbach's Alpha reliability coefficient of 0.82, indicating good internal consistency.

Method of Data Collection

Following ethical approval, copies of the questionnaire were distributed to respondents during work shifts with the assistance of two trained research assistants. Participants were given clear instructions and informed that their participation was voluntary and anonymous. Completed questionnaires were retrieved after 48 hours.

Method of Data Analysis

Data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) Version 29.0. Analysis was conducted at two levels:

Descriptive Statistics (frequencies, percentages, means, standard deviations) to summarize demographic information and item responses.

Inferential Statistics using simple linear regression analysis to test the hypotheses:

Hypothesis	Analytical Technique
H01: Nurses' attitude and EBP adoption	Simple Linear Regression
H02: Work environment and EBP adoption	Simple Linear Regression
H03: Professional code of ethics and EBP adoption	Simple Linear Regression

Hypotheses were tested at 5% level of significance (p < 0.05), and the regression model is specified as:

$$EBP_i = \beta_0 + \beta_1 ATT_i + \varepsilon_i$$

$$EBP_i = \beta_0 + \beta_1 WE_i + \varepsilon_i$$

$$EBP_i = \beta_0 + \beta_1 ETH_i + \varepsilon_i$$

Where:

EBP = Evidence-Based Practice Adoption score

ATT = Nurses' Attitude score

WE = Work Environment score

ETH = Professional Code of Ethics score

Ethical Considerations

Ethical approval was obtained from the Specialist Hospital Yola Ethics Review Board.

Participants were informed about the purpose of the study, assured of confidentiality, and signed an informed consent form. Participation was voluntary, and respondents were free to withdraw at any stage without penalty.

Result

The demographic characteristics of the 133 nurses surveyed are summarized in Table 1 below.

The sample comprised 133 nurses, predominantly female (63.9%), contrasting with global nursing trend, which is female-dominated. This suggests unique gender dynamics at Specialist Hospital Yola, possibly influenced by regional, cultural or recruitment practices. The majority held Diploma (46.6%), indicating a moderately educated workforce. Age and experience distributions were balanced with most nurses in mid-career stages (29-38 years old, 25.6 – 24.8%), aligning with a stable workforce capable of adopting evidence-based practices.

Table 1: Demographic Profile of Respondents

Variable	Frequency (n=133)	Percentage (%)
Gender		
Female	85	63.9
Male	48	36.1
Age		
18 – 28	28	21.1
29 – 38	34	25.6
39 – 48	33	24.8
49 – 58	28	21.1
59 & above	10	7.5
Years of Nursing Experience		
< 5 Years	46	34.6
5 – 10 Years	47	35.3
11 – 15 Years	23	17.3
Above 15 Years	17	12.8
Qualification		
Diploma	51	46.6
Bachelor's Degree	62	38.4
Master's Degree	20	15

Source: Compilation from SPSS 29, 2025

Relationship between nurses attitude and evidence-based practice table 2 below

Table 2: Regression Analysis of Attitude on EBP

Model Summary ^b			
R	.352 ^a		
R Square	.124		
Adjusted R Square	.117		
ANOVA ^a			
F(1, 133)	18.542		
P-value	.000 ^b		
Coefficients	B	T	Sig.
(Constant)	.554	7.204	.000
ATT	.330	4.306	.000

a. Dependent Variable: EBP

The model explains 12.4% of the variance in EBP ($R^2=0.124$). A significant positive relationship exists between nurses' attitude and EBP ($p < 0.001$). Attitude explain 12.4% of evidence-based practice variance, suggesting that nurses with proactive attitudes (e.g., openness to change, willingness to learn) are more likely to adopt evidence-based practice. However, the low R^2 implies other unmeasured factors (e.g., training, resources) also play critical role. The implications is that Attitude-focused interventions (e.g., workshops, motivational programs) could enhance EBP adoption in pre-eclampsia care.

Relationship between nurses work environment and evidence-based practice table 3 below

A regression analysis tested the influence of work environment (WE) on EBP.

Table 3: Regression Analysis of Work Environment on EBP

Model Summary ^b			
R	.156 ^a		
R Square	.024		
Adjusted R Square	.117		
ANOVA ^a			
F(1, 133)	3.280		
P-value	.072 ^b		
Coefficients	B	T	Sig.
(Constant)	.707	7.591	.000
WE	.184	1.811	.072

a. Dependent Variable: EBP

The model accounts for only 2.4% of EBP variance ($R^2 = 0.024$). The relationship between work environment and EBP is marginally insignificant at 5% significance level ($p=0.072$). The near-significance hints that workplace factors (e.g., resource availability, managerial support) might influence EBP, but the weak effect size suggest limited impact. The implication is that improving physical and psychological work conditions (e.g., reducing workload, providing tools) may still be beneficial, though not decisive.

Relationship between professional code of ethics and evidence-based practice table 4 below

A regression model tested the association between ethics (ETH) and EBP.

Table 4: Regression Analysis of Ethics on EBP

Model Summary ^b			
R	.098 ^a		
R Square	.010		
Adjusted R Square	.002		
ANOVA ^a			
F(1, 132)	1.271		
P-value	.262 ^b		
Coefficients	B	T	Sig.
(Constant)	.834	20.691	.000
ETH	.036	1.127	.262

a. Dependent Variable: EBP

Ethics explains 1% of EBP variance ($R^2 = 0.010$). No significant relationship exists between ethics and EBP ($p = 0.262$).

Test of Hypotheses

Hypothesis 1

H₀: There is no significant relationship between nurses' attitude and the provision of quality and holistic care to patients with pre-eclampsia at the specialist hospital Yola

Result: Attitudes significantly predict EBP ($p = 0.001$, $R^2 = 0.124$). We therefore reject the null hypothesis.

Hypothesis 2

H₀: Nurse's work environment has no significant influence on the adoption of evidence-based practice in the management of patients with pre-eclampsia at the specialist hospital Yola

Result: The influence of work environment on EBP is not statistically significant. We accept the null hypothesis

Hypothesis 3

H₀: professional code of ethics in nursing has no significant influence on evidence-based practices in the management of patients with pre-eclampsia at the specialist hospital Yola

Result: We reject the null hypothesis ($p = 0.262$) and conclude that ethics show so significant impact on EBP

Table 5: Hypotheses Summary Table

Hypothesis	Statement	Result	Decision
H01	Nurses' attitude has no significant influence on EBP adoption	Significant ($p < 0.05$)	Reject Null Hypothesis
H02	Work environment has no significant influence on EBP adoption	Not Significant ($p > 0.05$)	Fail to Reject Null Hypothesis
H03	Professional code of ethics has no significant influence on EBP adoption	Not Significant ($p > 0.05$)	Fail to Reject Null Hypothesis

Table 5 presents a summary of hypotheses testing results. As shown, only nurses' attitude had a significant influence on evidence-based practice adoption among nurses at Specialist Hospital Yola.

Discussion

The study found that nurses' attitude had a moderate, positive, and statistically significant effect on the adoption of evidence-based practice (EBP) ($\beta = 0.352$, $p < 0.05$). This indicates that as nurses' positive attitudes toward quality and holistic care improve, their likelihood of adopting EBP also increases. This finding is consistent with Durmuş *et al.*, (2025) [5], who emphasized that personal attitudes and openness to innovation are critical determinants of evidence-based behaviors among nurses. Positive attitudes may encourage curiosity, critical appraisal of new evidence, and willingness to implement change all crucial for EBP uptake.

Contrary to expectations, the study showed that the work environment had a weak positive but statistically insignificant influence on EBP adoption ($\beta = 0.156$, $p = 0.072$). While a supportive work environment is typically associated with enhanced professional practice, this study suggests that environmental factors alone were not strong enough to drive EBP adoption among nurses at Specialist Hospital Yola. This aligns partially with Rodgers *et al.* (2025) [11], who found that in resource-limited settings, systemic barriers may overpower environmental advantages, making individual motivation and education stronger determinants of behavior.

Similarly, the professional code of ethics had a very weak and statistically insignificant influence on the adoption of EBP ($\beta = 0.098$, $p = 0.262$). Although nurses recognized the ethical imperatives to provide quality care, this awareness

did not directly translate into evidence-based clinical actions. This finding supports Sebire *et al.*, (2025)^[12], who reported that ethical intentions often exist without adequate skills, knowledge, or support structures to operationalize EBP effectively. Thus, ethical commitment alone appears insufficient to drive behavioral change unless supported by practical competencies and organizational reinforcement.

Conclusion

This study concludes that nurses' attitude significantly influences the adoption of evidence-based practice, highlighting the need to nurture positive professional mindsets to promote evidence-based care. However, work environment and professional ethics awareness, while important, were not statistically significant predictors in this setting. This suggests that individual motivation, critical thinking skills, and continuous professional development play more decisive roles than environmental or ethical considerations alone in influencing nurses' practice behaviors.

The hypotheses testing revealed that:

- H01 (Nurses' attitude and EBP adoption): Rejected (Significant relationship).
- H02 (Work environment and EBP adoption): fail to reject (No significant relationship).
- H03 (Professional ethics and EBP adoption): fail to reject (No significant relationship).

Recommendations

Based on the study findings, the following recommendations are made:

1. Strengthen Nurses' Attitudes toward EBP by conducting regular motivation seminars, mentorship programs, and leadership training to cultivate positive professional attitudes toward innovation and patient-centered care.
2. Integrate Practical EBP Skills into Training by providing targeted workshops that combine ethical standards with hands-on evidence searching, critical appraisal, and clinical decision-making.
3. Improve Access to Evidence-Based Resources by establishing hospital libraries, digital databases, and clinical guidelines easily accessible during nurses' shifts to support evidence use.
4. Enhance Leadership Support for EBP: Hospital administrators should actively encourage EBP adoption through supervision, recognition, and reward mechanisms.
5. Align Ethics Training with EBP Implementation: Instead of focusing solely on ethical codes, ethics education should directly link ethical care with evidence-based protocols to bridge the gap between intention and practice.

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