

## Factors Associated with Nurses' Knowledge and Compliance with Evidence-Based Nursing Practice in Mainland Hospital Yaba, Lagos State

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**Abstract:** *The study examines factors influencing nurses' knowledge and practice of evidence-based nursing practice (EBNP) at Mainland Hospital, Yaba, Lagos State. Using a cross-sectional design, data were collected from 97 nurses through structured questionnaires. Findings indicate a moderate knowledge level of EBNP, with a mean score of 9.42/15. While 51% of nurses demonstrated moderate knowledge, 35% had high knowledge, and 14% had low knowledge. Regarding practice, 74% reported often practicing EBNP, 9% very often, and 17% not at all. Most nurses (96.9%) believed EBNP improves patient outcomes and were willing to recommend it to colleagues, with 71.1% expressing future willingness to adopt EBNP. System-related factors, such as technology and infrastructure ( $\bar{x} = 3.51$ ), were the most influential, followed by organizational ( $\bar{x} = 3.32$ ) and nurse-related factors ( $\bar{x} = 3.13$ ). Patient-related factors ( $\bar{x} = 2.98$ ) were the least influential. Regression analysis showed that years of experience (0.175) and educational qualification (0.001) positively affected EBNP knowledge. A significant association was found between the highest nursing qualification and EBNP knowledge ( $\chi^2 = 14.800, p = 0.010$ ). The study recommends EBNP-focused training and workshops to enhance nurses' knowledge and practice at Mainland Hospital.*

**Keywords:** EBNP, Lagos State, Mainland Hospital Yaba, Nurses' Knowledge

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### 1. Introduction

Evidence-based nursing practice (EBNP) refers to making clinical decisions based on the best available, up-to-date research, clinical expertise, and patient preferences (Melnyk and Fineout-Overholt, 2019). By combining clinical experience and patient values and preferences into the delivery of professional patient care, evidence-based nursing practice (EBNP) applies the best available scientific evidence to clinical decision-making (Melnyk and Fineout-Overholt, 2019). It is about making decisions by using the best available evidence from multiple sources in a conscientious, explicit, and judicious manner (Degu *et al.*, 2022). Evidence means research findings that are clinically relevant, such as empirical data from randomized controlled trials, data from other scientific methods like descriptive and qualitative research, and data from case studies, scientific principles, and expert opinion (Aynalem *et al.*, 2021). We refer to nurses' knowledge and proficiency in their field of study as clinical expertise. The knowledge and skills that nurses possess are derived from their clinical experiences and academic studies. Without a question, nurses are skilled at communicating with patients and eliciting their emotions. Therefore, it involves incorporating their expertise and abilities when providing care (Groove, 2018). As a science, nursing bases its choices on research findings. The most reliable method for drawing conclusions from science is scientific research. Research is the cornerstone of contemporary practice, whereas nursing practice produces research questions. As a result, practice and research coexist side by side in a circular continuity (Kristensen and Konradsen, 2015).

EBNP has been recognized as the gold standard for promoting nursing excellence and delivering safe, compassionate care. Evidence-based practice positively influences the practice of nurses and enables them to shift from tradition to scientific-based practice (Oluwatoyin and EkeFJH, 2016). In a similar vein, it reduces cost, enhances patient outcomes, establishes a benchmark for high-quality patient care (Branham *et al.*, 2014), boosts patient and family satisfaction, and advances professional growth (Jordan *et al.*, 2016). Once more, it closes the gap between theory and practice (Saleh, 2018), boosts working efficiency, decreases overtime (Jane-Vortherms *et al.*, 2015), and produces high job satisfaction (Kim *et al.*, 2016). The experiences and opinions of people involved in treatment have an impact on patient care; yet, the use of research-based evidence in nursing practice is limited (Degu *et al.*, 2022). EBNP is not frequently used by nurses, despite the fact that it has several benefits on patient outcome. This is because putting evidence into

practice presents many difficulties for nurses. Among these; lack of source, lack of time, inadequate skill, lack of training, and lack of knowledge took the first (Aynalem, 2021). EBNP is rarely utilized in low- and middle-income countries. EBNP procedures are a relatively new and often a challenging responsibility for many healthcare institutions. In African nations including South Africa, Ethiopia, Kenya, Nigeria, Egypt, Botswana, Burundi, and Malawi, for instance, EBNP is emphasized and promoted for nurses (Labrague *et al.*, 2019). In nursing practice, it is still in its early stages. A recent study from Nigeria found that the healthcare system there does not frequently use EBNP (Williams *et al.*, 2015). One explanation for this difficulty is that Africa falls behind in research due to a paucity of studies describing the state-of-the-art in EBP and a lack of government financing (Hadgu *et al.*, 2015). Another cause could be a lack of resources, which makes it nearly impossible for health professionals to work with vulnerable groups in low-income settings to acquire information. Nurses may lack the Knowledge and skills needed to extract research evidence from the literature or to apply that evidence, making it ineffective and failing to enhance clinical outcomes (Degu *et al.*, 2021).

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## 2. Materials and Methods

### Research Design

The research design adopted in this study was survey. In a survey design, according to Isangedighi, Joshua, Asim & Ekuri (2004), the researchers attempt to obtain a picture of the present conditions of particular phenomena. It is directed towards determining the nature of a situation, as it exists at the time of investigation and it depends basically on questionnaire as means of data collection. This particular research design was adopted because the variables under study were examined as they existed when the study was carried out. The study also involves populations that were only covered through a sample using questionnaires and describing the picture of the situation instead of drawing inference. In this study, the independent variables, knowledge and practice of evidence-based practice of quality nursing care was a measure of difference; while dependent variables already exist in the outcome of quality nursing care to patients.

### Research Setting

This study was carried out in Mainland Hospital Yaba, Lagos State. Mainland Hospital Yaba, Lagos State is formally known as infectious Diseases Hospital, this is a public hospital that offers quality medical solutions to a number of diseases, ensuring accessibility and affordability. Mainland Hospital Road Located at 6.522°N 3.3768°E, 1 Abule Ijesha Road Yaba Lagos.

### Population of the Study

The target population of this study will comprise of all the nurses that are working in Mainland Hospital Yaba, Lagos State and patients admitted in the ward between 2022 and 2023.

### Sample Size Determination

The sample size for this study is 114 nurses and patients, this is determined using the Taro Yamane (1967) formula which provides a simplified method of calculating sample size for finite (known) population using confidence level and 5% or 0.05 margin error. The formula is given as:

$$\frac{N}{1 + N(e)^2}$$

Where:

n = the sample size

N = the population size

e = the level of precision (allowable error) that is 5%.

Therefore, the sample size is given as:

$$n = \frac{148}{1 + 148(0.05)^2}$$

n = 127.89115646258502

10% non-response rate = 10.4

Total sample size = 138.3 = 138

### Sampling Technique

A random sampling technique was used to obtain the required sample for nurses and patients who participated in the study. This was done to give each nurse and patient equal opportunity of being selected through balloting of YES or NO.

### Instrument for Data Collection

The instrument for data collection was structured questionnaire which is divided into four sections: section A: consist of questions on Demographic characteristics of the respondents. Section B: nurses' knowledge on evidence-based practice of quality care rendered to patients. Section C: Practice of evidence-based practices of quality of nursing care Section D: Attitudes of nurses on evidence-based practice of quality nursing care by nurses. Section F: Level of compliance of nurses on evidence-based practice of quality nursing care. A standardized instrument by University of Ulster (2000) was used to measure attitude using a Likert scale 1- 5 ranging from strongly disagree (1), disagree (2), unsure (3), agree (4) to strongly agree (5).

### Procedure for Data Collection and Data Analysis

Data was collected using simple random sampling of nurses in each unit to give everyone the opportunity of being selected. This was carried out after the aim of the study was explained to the nurses who participated in the study. One hundred and eighteen nurses were sampled out of 147 nurses in the hospital. Descriptive statistics and Service Solutions (SPSS) version 23 was used to reduce masses of raw data into a more meaningful form. And data presented in tables using percentages and frequencies.

### Ethical Consideration

A letter of introduction was collected from the college and Ethical approval was obtained from the Hospital's Ethical Committee. Informed consent was obtained from the respondents after explanation of what the research was all about. They were told to opt out of the study if they so wished without any prejudiced. Confidentiality of respondents was guaranteed.

## 3. Results

### Demographic Characteristics of Nurses Respondents

The study involved the analysis of the demographic characteristics of the respondent nurses as described in **table 1**. The mean age of the nurses is reported to be 30.57 years representing a relatively very young respondent with a minimum age of 20 years and a maximum age of 62 years. This is evident as 57.7% of the of the respondents fall within the range of 20-29 years of age, 27.8% of the respondents fall within the age range of 30-39 years, 20.3% fall within the age range of 40-49 years. Only 3.1% of the respondents fall within the range of 50-59 years and only 1% of the respondents are within range of 60-65 years of age. This signifies that in Mainland Hospital Yaba, Lagos State. The study also records the nursing experience of the respondents. The study reveals that the average years of working experience of the respondents is 9.42 years representing a relatively young slightly inexperienced nursing population with minimum years of nursing experience being 1 years and the maximum nursing experience of 38 years. Respondent with 1-5 years of nursing experienced account for 40.2% of the population. 28.9% of the population had a nursing experience between 6-10 years of age. Respondent with years of nursing experience between 11-15 years accounted for 15.5% of the respondent population. Higher experience ranges had significant reduction in the respondent population as follows; 16-20 years (7.2%), 21-30 years (6.2%) and 30+ years (2.1%). The study takes note of the Nursing qualification of the nurses in in Mainland Hospital Yaba, Lagos State. B.Sc and Registered Nurse (RN) qualifications accounted for 33 of the population respectively, respondents with M.Sc population accounted for 20.6% of the respondent population and PhD, having the lowest percentage distribution, accounted for 13.4% of the respondent population.

**Table 1: Demographic Characteristics of Nurse Respondents**

Demographic Characteristics		Frequency	Percentage (%)	Mean
Age	20-29 years	56	57.7	30.57
	30-39 years	27	27.8	
	40-49 years	10	10.3	
	50-59 years	3	3.1	
	60-65 years	1	1.0	
Working Experience (Years)	1-5 years	39	40.2	9.42 years
	6-10 years	28	28.9	
	11-15 years	15	15.5	
	16-20 years	7	7.2	
	21-30 years	6	6.2	
	30+ years	2	2.1	
Highest Nursing Qualification	B.Sc	32	33.0	
	M.Sc	20	20.6	
	PhD	13	13.4	
	RN	32	33.0	
Rank	Staff Nurse	65	67.0	
	Chief Nurse	6	6.2	
	Clinical Nurse	1	1.0	
	Assistant Nurse	11	11.3	
	CNO	3	3.1	
	Nurse Manager	3	3.1	
	Senior Nursing Officer	8	8.2	

### Assessing the Level of Knowledge of Evidence-Based Nursing Practice Among Respondents

The study assessed the knowledge of the nurses about evidenced-based nursing through their knowledge of definition, components and characteristics of evidence-based nursing as recorded in table 2. About 81.4% of the respondents are aware of the definition as “A practice that combines research, clinical expertise, and patient preferences as opposed to the definition evidence-based nursing as “A nursing practice that emphasizes intuition and experience”. About 90.7% of respondents accepted that EBNP comprises of clinical experience, patient values and research evidence as opposed to 9.28% which opted for “hospital policies, patient preference and clinical guidelines” as components of evidenced based nursing. Concerning the characteristics of evidence-based nursing practices 16.5% of the respondents agreed that the practice of EBN is Time efficient, 66% of the respondents agreed that it cost effective and 55.7% accepted that it entails high level of evidence.

**Table 2: Respondents Knowledge of Evidence Based Nursing Practice**

Parameters	Frequency	Percentage (%)
<b>Definition of Evidence-Based Nursing Practice</b>		
A nursing practice that emphasizes intuition and experience	16	16.5
A practice that combines research, clinical expertise, and patient preferences	79	81.4
A method that relies solely on traditional nursing routines	1	1.0
<b>Components of ENBP</b>		
Clinical experience, patient values, and research evidence	88	90.7
Hospital policies, patients' preferences and clinical guidelines	7	7.2
<b>Characteristics of ENBP</b>		
Time Efficient		
Yes	81	83.5
No	16	16.5
Cost Effective		
No	33	34.0
Yes	64	66.0
High Level of Evidence		
No	43	44.3
Yes	54	55.7

To further investigate the nurses' knowledge of evidence-based nursing practice, practical-based knowledge (table 2.1) questions were administered. 92.8% of the respondents disagreed that changing of wound based on hospital policy is not evidence-base nursing practice. 42.3% of the respondent disagreed that administering medications based on a patient's self-report is not an evidence-based nursing practice. 38.1% disagreed that using evidence-based guidelines for pain management is not an evidence-based nursing practice.

In order to ascertain or measure the knowledge level of the nurses about evidence-based nursing practice, nurses were questioned about their knowledge of the model evidence-based nursing practice. This is to cover up for the use of intuition that may have been used to answer previous questions. The Knowledge of the IOWA, Stetler, and ACE star model were measured on a Likert scale; 1 = Not familiar, 2 = Poor, 3 = Fair, 4 = Good and 5 = Excellent. With the highest code of 5, a perfect match that account for knowledge of the three models would sum of to 15 (5\*3), making up the highest possible total for an individual. This total was categorized into three levels based on percentage; 0-49% (scores from 0-7) is considered to be low knowledge, 50-69% (scores from 8-10) was considered to be Moderate knowledge and 70-100% (score from 11-15) were considered to be High knowledge. From the results in table 2.2, the average mean score of the respondent population was recorded to 9.42, which is considered moderate. Hence, the population is said to have moderate actual knowledge of evidence-based nursing practice. The Percentage distribution of the knowledge level of the population is displayed in Figure 1, wherein the proportion of the population with low knowledge is recorded to be 14%, the proportion of the population with moderate knowledge of evidence-based nursing practice is recorded to be about 51% and 35% of the respondents had high knowledge of evidence-based nursing practice.

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**Table 2.1: Practical and Model-Based Assessment of the Knowledge of Evidence-Based Nursing Practice**

	Frequency	Percentage
<b>Practical Based Knowledge Assessment of what ENBP Entails</b>		
<b>Changing wound dressing based on hospital policy</b>		
No	90	92.8
Yes	7	7.2
<b>Administering medications based on patient's self-report</b>		
No	41	42.3
Yes	56	57.7
<b>Using evidence-based guidelines for pain management</b>		
No	37	38.1
Yes	60	61.9
<b>Relying solely on clinical experience for decision making</b>		
No	71	73.2
Yes	26	26.8
<b>Knowledge of Models of EBNP</b>		
<b>IOWA Model</b>		
Not familiar	4	4.1
Poor	10	10.3
Fair	42	43.3
Good	38	39.2
Excellent	2	2.1
<b>Stetler Model</b>		
Not familiar	4	4.1
Poor	15	15.5
Fair	55	56.7
Good	20	20.6
Excellent	2	2.1
<b>ACE star Model</b>		
Not familiar	5	5.2
Poor	12	12.4
Fair	42	43.3
Good	36	37.1

Excellent	1	1.0
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Table 2.2: Knowledge Level Score of the Respondent Population

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge Level	97	3	15	9.42	2.281
Valid N (listwise)	97				

Key: low = 0-7, Moderate = 8-10, High = 11-15.

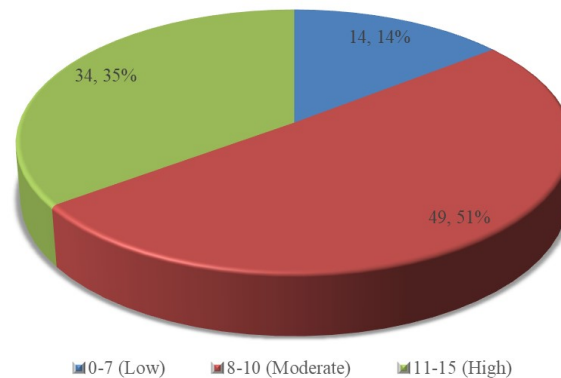


Figure 1: Knowledge level distribution of the respondent population

### Assessing the Practice of Evidence Based Nursing among Respondents

The study also endeavored to investigate nurses practice of evidence-based nursing as recorded in **table 3**. Considering the frequency of application of evidence-based nursing practices, 72% obliged to often apply evidence-based nursing practice, 9.3% of the respondent very often apply EBNPs, and 16.5% of the respondent obliged to have applied EBNPs at all. On the frequency of measurement of patient outcome, the results are as follows; Not at all (2.1%), not often (4.1%), Often (73.2%) and Very often (20.6%). Considering the documentation of evidence-based decisions in patient record recorded 100% yes, an indication that respondents may have considered any other form of records to evidence-based records as 16.5% had indicated to not applying evidence-based nursing practice at all.

Table 3: Assessment of Respondent Practice of Evidence Based Nursing

Parameters	Frequency	Percentage (%)
<b>How often do you apply EBNPs?</b>		
Not at all	16	16.5
Often	72	74.2
Very Often	9	9.3
<b>How often do you measure patients' outcomes?</b>		
Not at all	2	2.1
Not often	4	4.1
Often	71	73.2
Very often	20	20.6
<b>Do you participate in quality improvement initiative?</b>		
No	6	6.2
Yes	90	92.8
<b>Do you document evidence-based decisions in patient record?</b>		
Yes	97	100.0
No	0	0.0

### Assessing Respondent Attitude Towards Evidence-Based Nursing Practices

In **table 4**, considering the attitude of the respondents' evidence-based nursing practice, 69.1% of the respondents indicated that EBNP was good, 12.4% obliged to ENBP being excellent and 17.5% obliged to EBNP being fair. 96.9% indicated a believe that the practice of evidence-based nursing improves patient outcome. 96.9% indicated the readiness of recommending evidence-based nursing practice to colleagues, and

71.1% of the respondents expressed willingness to practice EBNP in the future. These results signifies a considerably high positive attitude of the nurses to evidence based nursing practice.

**Table 4: Investigation of Nurses Attitude towards Evidence-Based Nursing Practice**

Parameters	Frequency	Percentage
<b>How important is EBNP in your daily practice</b>		
Fair	17	17.5
Good	67	69.1
Excellent	12	12.4
<b>Do you believe EBNP improves patient outcomes</b>		
No	3	3.1
Yes	94	96.9
<b>Would you recommend EBNP to colleagues</b>		
No	2	2.1
Yes	94	96.9
<b>How likely are you to adopt EBNP for your future practice</b>		
Fair	13	13.4
Good	69	71.1
Excellent	14	14.4



#### Determination of Organizational Support of Evidence-Based Nursing in Mainland Hospital Yaba, Lagos State

In table 5, the study also investigates the organizational support towards evidence base nursing practice. Interestingly, 88.7% of the respondents are neutral in their opinion regarding the availability of resources for the practice of evidence-based nursing. 78.4% of the population agree that Mainland Hospital places priority on evidence-based nursing and 67% agree to have sufficient training on the practice of evidence-based nursing. These results considerably show administrative support of Mainland Hospital Yaba.

**Table 5: Assessing Organizational Support of evidence-based nursing practice**

		Frequency	Percentage
<b>I have adequate resources to support EBNP</b>	Disagree	8	8.2
	Neutral	88	88.7
	Agree	1	1.0
<b>My organization prioritizes EBNP</b>	Disagree	2	2.1
	Neutral	17	17.5
	Agree	76	78.4
<b>I receive sufficient training on EBNP</b>	Disagree	23	23.7
	Neutral	65	67.0
	Agree	7	7.2

#### Factors Affecting the Practice of Evidence-Based Nursing

The practice and non-practice of evidence-based nursing could be dependent on certain factors. The study highlights respondents' opinion on the factors affecting their practice of evidence-based nursing. 40.2% of the respondents consider lack of knowledge and skills to be a limiting factor, while 66% consider insufficient resources to be a factor affecting their practice of evidence-based nursing. 23.7% considers resistance from colleagues to be a hindering factor, 15.5% consider limited access to journals and database to have affected their practice of evidence-based nursing. A very small percentage of the respondent (5.2%) consider one of the factors to be inadequate policies and guidelines, 13.4% consider limited support from administration to be one of the factors. Also, inadequate Staff and workload was a factor considered by 7.2% of the respondent population. From the analysis specific to Mainland Hospital Yaba, Lagos State, the most pressing factors include insufficient resources and lack of knowledge and skills, followed by resistance from colleagues or management (Table 6).

**Table 6: Investigating factors affecting the practice of evidence-based nursing**

	Frequency	Percentage
<b>Lack of Knowledge and Skills</b>		
No	58	59.8

Yes	39	40.2
<b>Insufficient resources (e.g., time, funding)</b>		
No	33	34.0
Yes	64	66.0
<b>Resistance From Colleagues or Management</b>		
No	74	76.3
Yes	23	23.7
<b>Limited access to research journals and database</b>		
No	82	84.5
Yes	15	15.5
<b>Inadequate policies and guidelines</b>		
No	91	93.8
Yes	6	5.2
<b>Limited support from administration</b>		
No	84	86.6
Yes	13	13.4
<b>Inadequate staffing and workload</b>		
No	90	92.8
Yes	7	7.2

### Assessing the Extent of the Influence of Factors on ENBP

The extent of influence of the factors on evidence-based nursing practice was analyzed. These factors was categorized into system-related factors, Organizational factors, Nurse-related factors and Patient-related factors. Responses on the influence of these factors were coded as follows: 1 = Minimal, 2 = Low, 3 = Moderate, 4 = High, 5 = Significant, creating a benchmark mean ( $\bar{x}$ ) of  $1+2+3+4+5/5 = 3.0$ . Hence the through the benchmark mean ( $\bar{x}$ ) the factors were either highly influential ( $\bar{x} > 3.0$ ) in Mainland and less influential ( $\bar{x} < 3.0$ ). Therefore, as can be seen in **table 7**, the highly influential factors were observed to be system-related factors including technology and infrastructure ( $\bar{x} = 3.51$ ), followed by Organizational factors ( $\bar{x} = 3.32$ ) and nurse-related factors ( $\bar{x} = 3.13$ ). The only less influential factor observed was the patient-related factor ( $\bar{x} = 2.98$ ).

**Table 7: Extent of Effect of factors on the Practice of Evidence-Based Nursing**

Factors	Measures	Frequency	Percentage	Mean	Rank
System-related factors (e.g technology, infrastructure)	Minimal	1	1.0	3.51*	1 <sup>st</sup>
	low	3	3.1		
	moderate	49	49.5		
	high	36	37.1		
	significant	8	8.2		
Organizational factors (e.g resources, policies)	low	5	5.2	3.32*	2 <sup>nd</sup>
	moderate	56	57.7		
	high	36	37.1		
Nurse-related factors (e.g knowledge, attitude)	low	10	10.3	3.13*	3 <sup>rd</sup>
	moderate	65	66.0		
	high	21	21.6		
	significant	1	1.0		
Patient-related factors (e.g Complexity, acuity)	Minimal	2	2.1	2.98	4 <sup>th</sup>
	low	7	7.2		
	moderate	79	81.4		

### Testing of the Study Hypothesis

H<sub>0</sub>1: There is no statistically significant effect of the nurse's sociodemographic variables (Years of Experience, age and educational qualification) and their knowledge of evidence-based nursing care in Mainland hospital Yaba, Lagos State.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots \dots \dots (1)$$

Where:



$Y$  = Knowledge Score (Measured in numbers from 1 to 15)

$\beta_0$  = Intercept

$\beta_1 - \beta_9$  = Regression coefficients

$X_1$  = Age of Nurses (Measured in Years)

$X_2$  = Nursing Experience (Measured in years)

$X_3$  = Highest Nursing Qualification (Categorical Variable; 1 = B.Sc., 2 = M.Sc., 3 = PhD, 4 = RN)

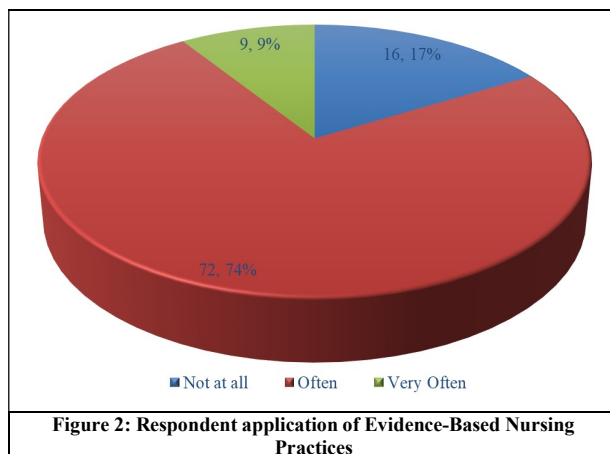
Multiple regression model was used to the hypotheses as stated above. From the model summary in **table 8**, the coefficient of correlation reveals a strong positive correlation ( $R = 0.502$ ) between the nurses demographic parameters (age, nursing experience and highest nursing qualification) and their knowledge score. The coefficient of determination,  $R^2 = 0.252$ , implies that 25.2% of the variances in the knowledge score can be accounted for by the nurses demographic variables (predictors). The ANOVA table, the relationship between the predictors and knowledge score is statistically significant  $P(0.000^b) < 0.05$ . From the table of coefficients, the model equation is established below:

$$Y = 8.455 - 0.022(\text{Age of Nur}) + 0.175(\text{Experience of Nur}) + 0.001(\text{Nurses Qualification})$$

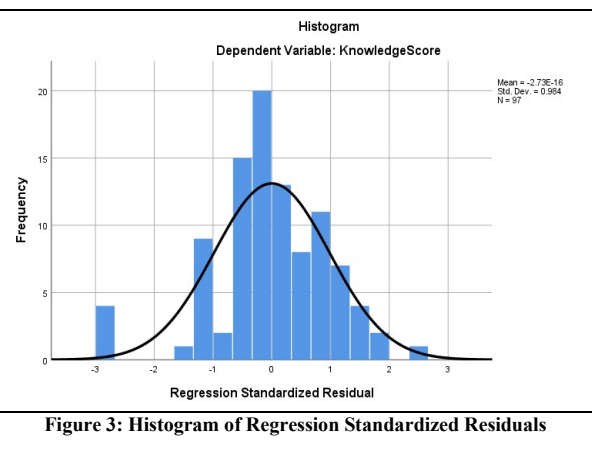
The regression constant of 8.455 represents the baseline knowledge score when the predictors of age, nursing experience and nurse's qualification are zero. From the coefficients of all the predictors, age of nurses is said to have a negative relation with the knowledge score (-0.022) however, this knowledge score is not statistically significant. A positive relationship is recorded for the relationship between with knowledge score. Implying that for every additional increase in nursing experience, the knowledge score increases by 0.175 points or 1.175% of the total possible score this relationship is also statistically significant  $P(0.013) < 0.05$ . Nurse's qualification had a positive coefficient of 0.001, implying that each level rise in qualification (such as from B.Sc to M.Sc.) would increase the knowledge score by 0.001 points or 0.007% of the total score. This relationship is also not statistically significant  $P(0.997) > 0.05$ . From the histogram plot of residuals in **figure 2**, the bell shape of the histogram evenly distributed around zero is an indication of normal distribution. Also, the from the normal P-P plot in **Figure 3**, the points following the diagonal line is also an indication that the residuals are normally distributed.

**Table 8: Model Summary of Knowledge Score against Nurses Demographic Parameters (Age, Experience and Qualification)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502 <sup>a</sup>	.252	.227	2.00534
<b>a. Predictors: (Constant), Highest nursing qualification, Nursing experience, Age of respondents</b>				
<b>b. Dependent Variable: Knowledge Score</b>				



**Figure 2: Respondent application of Evidence-Based Nursing Practices**



**Figure 3: Histogram of Regression Standardized Residuals**

**Table 9: Analysis of Variance to Test the Significance Difference between Regression Model Dependent and Independent Variables**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	125.683	3	41.894	10.418	.000 <sup>b</sup>
	Residual	373.988	93	4.021		
	Total	499.670	96			
<b>a. Dependent Variable: Knowledge Score</b>						
<b>b. Predictors: (Constant), Highest nursing qualification, Nursing experience, Age of respondents</b>						

**Table 10: Table of Coefficients for the Regression Model**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.455	1.274		6.639	.000
	Age of respondents	-.022	.062	-.084	-.360	.719
	Nursing experience	.175	.069	.577	2.547	.013
	Highest nursing qualification	.001	.174	.000	.003	.997
<b>a. Dependent Variable: Knowledge Score</b>						

**Table 11: Hypothesis Testing the Significant Relationship between Knowledge of Evidence based nursing and Nurses age and experience**

Independent Variables		Def 1	Def 2	Def 3	Chi-square ( $\chi^2$ )	df	Exact Sig.
Age	20-29 Years	5 (31.3%)	50 (63.3%)	0 (0.0%)	10.332	8	0.180
	30-39 Years	6 (37.5%)	20 (20%)	1 (100%)			
	40-49 Years	4 (25%)	6 (7.6%)	0 (0.0%)			
	50-59 Years	1 (6.3%)	2 (2.5%)	0 (0.0%)			
	60-65 Years	0 (0.0%)	1 (1.3%)	0 (0.0%)			
Years of Nursing experience	1-5 Years	2 (12.5%)	37 (46.8%)	0 (0.0%)	16.204	10	0.094
	6-10 Years	5 (31.3%)	21 (26.6%)	1 (100%)			
	11-15 Years	4 (25%)	11 (13.9%)	0 (0.0%)			
	16-20 Years	4 (25%)	3 (3.8%)	0 (0.0%)			
	21-30 Years	1 (6.3%)	5 (6.3%)	0 (0.0%)			
	30+ Years	0 (0.0%)	2 (2.5%)	0 (0.0%)			
Highest Nursing Qualification	B.Sc	4 (25%)	28 (35%)	0 (0.0%)	14.800	6	0.010
	M.Sc	1 (6.3%)	19 (23.8%)	0 (0.0%)			
	PhD	0 (0.0%)	13 (16.3%)	0 (0.0%)			
	RN	11 (68.8%)	20 (25.0%)	1 (100%)			

**Key; Def = Definition. Definition 1:** A method that relies solely on traditional nursing routines, **Definition 2:** A practice that combines research, clinical expertise, and patient preferences, **Definition 3:** A method that relies solely on traditional nursing routines.

**Ho2:** There is no statistically association between Factors affecting Nurses practice of evidence-based care of patients and their attitude towards evidence-Based Nursing Practice in Mainland hospital Yaba, Lagos State.

Fisher's exact test was also used to test the significance of association between factors affects EBNP and the attitude of nurses to EBNP. No significance associated was noted between patient related factors and the attitude of nurses to evidence, based nursing practice ( $\chi^2 = 0.465$ ,  $P (0.926) < 0.05$ ). No significance associated was noted between organizational factors and the attitude of nurses to evidence, based nursing practice ( $\chi^2 = 3.460$ ,  $P (0.236) < 0.05$ ). No significance associated was noted between system-related factors and the attitude of nurses to evidence, based nursing practice ( $\chi^2 = 0.344$ ,  $P (0.251) < 0.05$ ) and, no significance associated was noted between nurse-related factors and the attitude of nurses to evidence, based nursing practice ( $\chi^2 = 0.782$ ,  $P (1.078) < 0.05$ ). Hence, none of these categories of factors has statistical

significant relationship with the attitude of the nurses towards evidence-based nursing practice in Mainland Hospital Yaba, Lagos State.

**Table 12: Fischer's exact test to ascertain the significant relationship between factors influencing EBNP and their attitude towards ENBP**

Variables	Category	Do you believe EBNP improves patient outcome?		Chi-square ( $\chi^2$ )	df	Exact Sig.
		No	Yes			
Patient Related Factors	Minimal	0 (0.0%)	2 (2.1%)	0.465	3	0.926
	Low	0 (0.0%)	7 (7.4%)			
	Moderate	2 (100%)	77 (81.1%)			
	High	0 (0.0%)	9 (9.5%)			
Organizational Factors	Minimal	0 (0.0%)	5 (5.3%)	3.460	2	0.236
	Low	0 (0.0%)	56 (58.9%)			
	Moderate	0 (0.0%)	0 (0.0%)			
	High	2 (100%)	34 (35.8%)			
System-Related Factors	Minimal	0 (0.0%)	1 (1.1%)	0.344	4	0.251
	Low	1 (50%)	3 (3.2%)			
	Moderate	0 (0.0%)	47 (49.5%)			
	High	1 (50%)	8 (8.4%)			
Nurse-related Factors	Minimal	0 (0.0%)	10 (10.5%)	0.782	3	1.078
	Low	1 (50%)	64 (67.4%)			
	Moderate	1 (50%)	20 (21.1%)			
	High	0 (0.0%)	1 (1.1%)			

#### 4. Discussion

Sources have identified years of clinical experience and educational background as hypothesized factors influencing Nurse's ability to adhere to evidence-based nursing practice (Rudman *et al.*, 2020). The study reports a considerable young population of Nurses in Mainland Hospital, Yaba Lagos. With a mean age of 30.57 years and with the highest percentage of the nurses falling within the age range of 20-29 years. Their average clinical experience was recorded to be 9.42 years, signifying a moderately experienced workforce as the majority of them (40.2%) have clinical experience in the range 1-5 years. There is evidence that Registered nurses with a graduate degree are likely to apply evidence-based nursing practice (Saunders and Vehvilatnem-Julkunem, 2016). Whereas, in certain European settings, registered Nurses with a master's level education are likely to apply more cognitive abilities, analyzing and synthesizing relevant information in the execution of evidence-based practices compared to the nurses with lower levels of educational qualification (Watkins, 2011). In the study, nurses with B.Sc and Register Nurse qualification had a population of 33% each. 20.6% of the nurses had Master's Degree (M.Sc) and 13.4% have attained a doctorate degree (PhD) as their highest educational qualification. However, there is need for evidence-based practice experts which includes advanced practice nurses who have received the requisite education to perform tasks in compliance with evidence-based practices (Jokiniemi *et al.*, 2020). These advanced practice nurses (APNs) comprise of clinical nurse specialist (CNSs) and nurse practitioners each with different roles aimed towards the implementation of evidence-based practices (Jokiniemi *et al.*, 2020; Melnyk *et al.*, 2018). According to the recommendations by the International Council of Nurses (ICN), clinical nurse specialists take the lead in improving nursing practice through mentoring, teaching, consulting, and making sure nursing practice is grounded in evidence (Schober *et al.*, 2020; Li *et al.*, 2018). However, they also recommend that the minimum academic qualification to become an advanced practice nurse is a Master's degree. Furthermore, the study of Rudman *et al.*, (2020), it was revealed that evidence Registered Nurses with specialist education had higher compliance to evidence-based practice. From the regression model coefficient, Nurses years of experience (0.175) and educational qualification (0.001) have positive effect on their knowledge of EBNP. From the ANOVA table, the effect of age, Nurses education and years of experience on their knowledge of EBNP. However, there is significant association between highest nursing qualification of the nurses and their knowledge of evidence-based nursing practice ( $\chi^2 = 14.800$ , P (0.010) < 0.05).

The study reports considerable knowledge of what evidence-based nursing practice is. 81.4% of nurses correctly defined evidence-based nursing as a practice that incorporates clinical knowledge, research, and patient preferences; they rejected the idea that it is mostly based on routine or intuition. In addition, 90.7% of respondents said that EBNP is a practice that goes beyond merely following hospital rules or regulations by integrating clinical expertise, patient values, and research findings. In reality, Evidence based practice have proven to be reduce the cost of healthcare (Aiken *et al.*, 2014; Rangachari, *et al.*, 2015) Of those who responded, 83.5% agreed that EBNP is time-efficient, 66% agreed that it is cost-effective, and 55.7% agreed that it demands a high degree of proof. In order to evaluate practical knowledge, questions about the use of EBNP principles were asked. Significantly, 42.3% of respondents disagreed with giving medication based only on patient self-report, and 92.8% disagreed with changing wound dressings based just on hospital regulation. These responses demonstrate an understanding of the importance of evidence in clinical decision-making. From the fisher's exact test, highest nursing qualification had significant statistical association the nurse's knowledge of evidence-based nursing practice ( $\chi^2 = 14.800$ ,  $P(0.010) < 0.05$ ). However, neither Age nor nursing experience had significant statistical association with nurses' knowledge of evidence-based nursing practice in Mainland Hospital, Yaba, Lagos.

Because evidence-based involves the integration of clinical practice with the most recent and relevant research findings (Ghorpade and Salvi, 2024), the best definition of evidence-based nursing as stated in the data collection instrument was that evidence-based nursing is "A practice that combines research, clinical expertise, and patient preferences", and 81.4% consented to this definition of evidence-based nursing practice. As for the specific characteristics of EBNP, 83.5% of respondents recognized that it is time-efficient, 66% agreed it is cost-effective, and 55.7% acknowledged it requires a high level of evidence. Studies have reported that the application of evidence-based practices provides the benefits of patient satisfaction as well as satisfaction among clinicians (Dang *et al.*, 2021). Moreover, a study by Melnyk *et al.*, (2018) affirms that the cost-effective interventions of evidence-based practice can prevent 50% of deaths, globally. From the measurement of the knowledge level, Nurses in Mainland Hospital, Yaba, Lagos collectively have a moderate extensive knowledge of evidence based nursing practice which can be attributed to lack of specialization and their relative inexperience as can be noted in their record of years of nursing experience.

The practice of evidence-based nursing is a multifaceted process requiring changes in behaviour and attitude of the clinical practitioners (Cuzmenco, 2024). The investigations of about EBNP in Mainland Hospital confirms the sad report that from studies that despite the emphasis on the importance and benefits of evidence-based nursing practice, the best available relevant evidence is not always utilized in clinical decision-making and practice as well as in healthcare (Dagne and Basha, 2021; Lehane *et al.*, 2019). This can be attributed to certain factors affecting the implementation of sustainable practice of evidence-based nursing (EBN).

## 5. Conclusion

In this study, Organizational support for EBNP at Mainland Hospital Yaba was also assessed. Although 78.4% of respondents agreed that the hospital prioritizes EBNP, and 67% agreed they received sufficient training, a notable 88.7% remained neutral regarding the availability of resources, such as time and funding, indicating potential ambivalence about the support infrastructure for evidence-based nursing. 40.2% of the nurses identified lack of knowledge and skills as a limiting factor, while 66% identified insufficient resources as an influential factor. The study found that system-related factors, such as technology and infrastructure, had the highest influence (mean score of 3.51), followed by ( $\bar{x} = 3.51$ ), followed by Organizational factors ( $\bar{x} = 3.32$ ) and nurse-related factors ( $\bar{x} = 3.13$ ), with patient-related factors having the least influence. Hence, the study identifies lack of sufficient equipment and resources such as information, as the highest limiting factor. The nurse-related factor involves nurses' knowledge and attitude towards evidence-based nursing practice. This is troubling, as it has been established that the translation of evidence into practice requires both human and material resources as well organizational support (Spooner *et al.*, 2018).

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- **Margaret Inemesit Akpan:** Conceptualized and designed the study, supervised data collection, and contributed to data analysis and interpretation.
- **Patricia Okon:** Provided critical insights into the study methodology, conducted data analysis, wrote the initial manuscript draft, and contributed to the interpretation of findings.
- **Ojong Idang Neji:** Coordinated fieldwork activities, facilitated community engagement, and contributed to drafting and reviewing the manuscript.
- **Joseph Ajah Efut:** Reviewed the manuscript for intellectual content, and ensured the validity of findings, helped the submission of this paper
- **Abasiofon Inemesit Akpan:** Assisted in data collection, performed literature review, and contributed to the preparation and editing of the manuscript.

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