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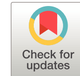
Bridging the gap between ethics education and clinical practice: Assessing determinants of ethical awareness among Nigerian nursing students



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KEYWORDS
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Abstract
Introduction: Ethical awareness is fundamental to nursing and midwifery practice, influencing how students recognize and respond to ethical dilemmas in clinical settings. While ethics is well covered in nursing curricula, gaps often remain between theoretical knowledge and practical application. This study aimed to assess the levels of ethical knowledge, perception, and awareness among undergraduate nursing and midwifery students at Babcock University, Nigeria, and to examine the relationships among these constructs.
Materials and methods: A descriptive cross-sectional design was employed. A total of 206 undergraduate nursing and midwifery students were surveyed using a structured, self-administered questionnaire. Data were analyzed using descriptive statistics, correlation analysis, and regression models to determine associations between ethical knowledge, perception, and awareness.
Results: Most students demonstrated high knowledge of general ethical principles, with nearly all respondents familiar with patient rights and informed consent. Positive perceptions of ethics were more strongly correlated with ethical awareness ($r = 0.42$, $p < .001$) than knowledge alone ($r = 0.29$, $p < .001$). Regression analysis confirmed perception as a stronger predictor of ethical awareness. Furthermore, senior-level students with greater clinical exposure had significantly

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higher ethical awareness. While gender was reported in the demographics (87.4% female, 12.6% male), no statistical test demonstrated gender as a determinant of awareness.
Conclusion: The findings highlight that while factual knowledge of ethics is strong, students' perceptions and experiential learning play a more decisive role in shaping ethical awareness. Ethics education should therefore emphasize reflective, practice-based, and culturally sensitive approaches to better prepare students for complex clinical decision-making.
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PALABRAS CLAVE
Conciencia ética;
Estudiantes de enfermería;
Percepción;
Conocimiento;
Nigeria

Cerrando la brecha entre la educación en ética y la práctica clínica: Evaluación de los determinantes de la conciencia ética en estudiantes de enfermería Nigerianos

Resumen
Introducción: La conciencia ética es fundamental en la práctica de enfermería y partería, ya que influye en cómo los estudiantes reconocen y responden a los dilemas éticos en los entornos clínicos. Aunque la ética está ampliamente cubierta en los planes de estudio de enfermería, suelen existir brechas entre el conocimiento teórico y la aplicación práctica. Este estudio tuvo como objetivo evaluar los niveles de conocimiento, percepción y conciencia ética entre estudiantes de licenciatura en enfermería y partería de la Universidad Babcock, Nigeria, y examinar las relaciones entre estos constructos.
Materiales y métodos: Se empleó un diseño descriptivo transversal. Un total de 206 estudiantes de licenciatura en enfermería y partería fueron encuestados mediante un cuestionario estructurado y autoadministrado. Los datos se analizaron utilizando estadística descriptiva, análisis de correlación y modelos de regresión para determinar asociaciones entre conocimiento, percepción y conciencia ética.
Resultados: La mayoría de los estudiantes demostró un alto conocimiento de los principios éticos generales, con casi todos los encuestados familiarizados con los derechos del paciente y el consentimiento informado. Las percepciones positivas sobre la ética se correlacionaron más fuertemente con la conciencia ética ($r = 0.42$, $p < .001$) que el conocimiento por sí solo ($r = 0.29$, $p < .001$). El análisis de regresión confirmó la percepción como un predictor más fuerte de la conciencia ética. Además, los estudiantes de niveles avanzados con mayor exposición clínica presentaron una conciencia ética significativamente más alta. Aunque el género se reportó en la demografía (87.4% mujeres, 12.6% hombres), ninguna prueba estadística mostró al género como determinante de la conciencia.
Conclusión: Los hallazgos destacan que, si bien el conocimiento factual de la ética es sólido, las percepciones de los estudiantes y el aprendizaje experiencial desempeñan un papel más decisivo en la formación de la conciencia ética. Por lo tanto, la educación en ética debe enfatizar enfoques reflexivos, prácticos y culturalmente sensibles para preparar mejor a los estudiantes frente a la toma de decisiones clínicas complejas.
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Introduction

Quality healthcare provision is founded upon ethical competence, especially in resource-limited environments like Nigeria. The need to create a morally competent workforce has never been as important as it is today, as healthcare systems experience more complexities and ethical dilemmas. The knowledge, perceptions, and determinants of ethical decision-making make up the ethical awareness that is necessary in maintaining safe and compassionate patient care.[1]

Ethical awareness is a crucial factor that can help shape the future healthcare professionals in the framework of nursing and midwifery education. Ethical skills in identifying and negotiating ethical dilemmas can play a crucial role in the upholding of patient dignity, adherence to autonomy, and respect for the principles of beneficence and non-maleficence.[2] Nevertheless, ethical competence is a complicated process that depends on a number of factors, among them being formal education, clinical experience, and personal values.[3]

Nigerian healthcare system is resource-strained and has a peculiar cultural tapestry, which poses certain challenges to ethical practice. Conventional assumptions, religious factors, and Western medicine paradigms tend to interplay with each other and form a complicated ethical environment the medical professional needs to work with.[4,5] In this regard, the knowledge of the determinants of ethical awareness

among nursing and midwifery students will be critical to the creation of specific educational interventions.

Other researchers have discussed ethical knowledge and decision-making in healthcare students in different environments. Nevertheless, a lack of studies that investigate the relationship between the ethical knowledge, the perception, and the awareness specifically in the Nigerian context is evident.[6,7] The lack of literature in this area indicates that there is a gap in the literature that requires the systematic evaluation of ethical competence in future healthcare professionals in Nigeria.

The aim of our study was to assess the level of knowledge, perceptions and the determinants of ethical awareness among undergraduate nursing and midwifery students. Through the analysis of these variables, we will attempt to present information that would help in shaping better ethics programs and eventually lead to better patient care. The study is especially timely in light of the growing attention to ethical practice in international health projects and the necessity to have culturally sensitive approaches to the issue of ethics education.

Methodology

Study design/setting

A descriptive cross-sectional survey design was employed to assess the knowledge, perception, and ethical awareness of undergraduate nursing and midwifery students. The study was conducted at the School of Nursing, Babcock University, Ogun State, Nigeria. The institution offers undergraduate nursing and midwifery programs accredited by the Nursing and Midwifery Council of Nigeria (NMCN), and students undertake both classroom instruction and clinical rotations in affiliated teaching hospitals.

Study population/sample size

The target population comprised all undergraduate nursing and midwifery students at Babcock University who had completed at least one clinical posting. This translated to students across the 300-, 400-, and 500-level cohorts. A sample size of 206 students was determined using the Yamane (1967) formula for finite populations, with a 5% margin of error and a 95% confidence level. Stratified random sampling was applied to ensure proportional representation across academic levels (300, 400, and 500). Within each stratum, participants were selected using simple random sampling until the required quota was achieved.

Inclusion criteria were undergraduate nursing and midwifery students enrolled at Babcock University and students who had completed at least one clinical posting.

Exclusion criteria were students on leave of absence during data collection and students unwilling to provide informed consent.

Instrument for data collection

Data were collected using a structured, self-administered questionnaire adapted from validated instruments used in prior studies on nursing ethics (Alnajjar et al., 2020; Safa and Adib, 2019). The questionnaire consisted of four sections:

Section A: Socio-demographic characteristics (age, gender, religion, level of study, duration of clinical posting).
Section B: Knowledge of ethical awareness (6 items; dichotomous yes/no).
Section C: Perception of ethical awareness (6 items; 5-point Likert scale ranging from strongly agree to strongly disagree).
Section D: Ethical awareness in practice and determinants (12 items; 5-point Likert scale).

A pre-test of the instrument was conducted among 20 students in a comparable institution, yielding a Cronbach's alpha of 0.82, indicating good internal consistency.

Data analysis

Data were coded and entered into IBM SPSS Statistics version 25 for analysis. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize socio-demographic characteristics, knowledge, perception, and awareness scores. Pearson's correlation coefficient was used to test associations between continuous variables (knowledge, perception, and awareness) and linear regression analysis to identify predictors of ethical awareness. Statistical significance was set at $p < .05$. Effect sizes and 95% confidence intervals were reported where applicable to enhance interpretive rigor.

Ethical considerations

Ethical approval was obtained from the Babcock University Health Research Ethics Committee. Institutional permission was granted by the School of Nursing. Written informed consent was obtained from all participants, who were assured of confidentiality, voluntary participation, and the right to withdraw at any time without penalty. Data were anonymized and stored securely to protect participants' privacy in accordance with the Declaration of Helsinki.

Results

Demographics

A total of 206 undergraduate nursing and midwifery students participated in the study. Descriptive statistics for demographic variables are presented in Table 1. Most respondents were aged 16–20 years (80.6%), predominantly female (87.4%), and mainly Christian (86.9%). Academic level distribution was 44.7% at 300 level, 23.3% at 400 level, and 32.0% at 500 level, and most students had over 6 months of clinical experience (63.1%).

Knowledge of ethical awareness

Nearly all students reported receiving ethics training (99.5%) and understanding key concepts such as patients' rights to

Table 1 Demographic characteristics of participants (N = 206).

Variable	Category	Frequency (n)	Percentage (%)
Age group	16–20	166	80.6
	21–24	35	17.0
	25–27	5	2.4
Gender	Female	180	87.4
	Male	26	12.6
Religion	Christianity	179	86.9
	Islam	27	13.1
Academic level	300 Level	92	44.7
	400 Level	48	23.3
	500 Level	66	32.0
Clinical experience	1–3 months	47	22.8
	4–6 months	29	14.1
	>6 months	130	63.1

refuse treatment (99.5%) and informed consent (97.1%). Familiarity with formal guidelines was slightly lower (83.5%), yet overall, 93.7% of the respondents were classified as having "good knowledge" (SD 5.7 ± 0.5). These results are shown in Table 2.

Perception of ethical awareness

There is strong support for confidentiality and informed consent. A total of 86.9% strongly agreed that maintaining patient confidentiality is crucial, and 92.7% strongly agreed on the importance of obtaining informed consent. Conversely, the majority rejected statements minimizing patient rights (P4 and P6). Table 3 shows the perception of the students using a 5-point Likert scale.

Determinants of ethical awareness

Factors influencing ethical decision-making are shown in Table 4. As indicated in the table, clinical facility support and personal cultural / religious beliefs influenced the respondents the most (29.6% and 25.2%, respectively).

Correlation analysis: Knowledge (K), Perception (P) and Ethical awareness (EA)

From Table 5, a weak but significant positive relationship was observed between knowledge and perception of ethical awareness (r = 0.148, p = .034; ρ = 0.142, p = .041). This suggests that students with greater knowledge of ethical principles tended to hold more favorable perceptions. Also, the relationship between knowledge and ethical awareness showed a modest positive association (r = 0.202, p < .001), which was further supported by the chi-square test for categorical variables (χ^2 = 7.84, p = .005). The effect size (r^2 = 0.04) suggests that knowledge contributed to 4% of the variance in ethical awareness. A moderate positive correlation was found between perception and ethical awareness (r = 0.423, p = .020), with regression analysis confirming that perception significantly predicted awareness (β = 0.42, p = .020). The effect size (r^2 = 0.18) shows that perception accounted for nearly one-fifth of the variance in ethical awareness, making it a more substantial predictor than knowledge.

Discussion

The aim of our study was to assess the level of knowledge, perceptions and the determinants of ethical awareness among undergraduate nursing and midwifery students.

From our study, we found that perception (attitudes) was more positively correlated with ethical awareness ($r \approx 0.42$, p = .001) than was knowledge alone ($r \approx 0.29$, p = .001). This implies that activating ethical values internally is more conclusive in ethical sensitivity than knowledge memorization - a common finding with neo-Kohlbergian models of moral development[3] and the results of Alnajjar and Abou-Hashish.[8] The more senior students who have more clinical exposure ranked much higher in ethical awareness, which contributes to the fact that ethical competence is built over the course of academics and experience.[9] Gender variation was also remarkable. Female students were more ethically aware, which supported the previous studies that empathy and sensitivity to morality are much more feminine than masculine.[10] The students demonstrated the most satisfactory results in easy-to-understand patient safety ethics (e.g., beneficence in fall prevention) and worse results in complex problems, including end-of-life care, and the current theory-practice gap.[11] Lastly, numerous students admitted that cultural and religious beliefs influenced their

Table 2 Knowledge of ethical nursing practice (N = 206).

Item	Statement	Yes (n)	Yes (%)	No (n)	No (%)
K1	Received training on nursing ethics as part curriculum	205	99.5	1	0.5
K2	Awareness that patients have the right to refuse treatment	205	99.5	1	0.5
K3	Informed consent is a crucial part of ethical nursing practice	200	97.1	6	2.9
K4	Familiarity with the ethical guidelines by the Nigerian Nursing and Midwifery Council	172	83.5	34	16.5
K5	Understanding that respecting patient autonomy includes honoring decisions against medical advice	193	93.7	13	6.3
K6	Understands the concept of ethical dilemmas in nursing practice	201	97.6	5	2.4

Table 3 Perception toward ethical nursing practices (N = 206).

Item	Statement	SA (n, %)	A (n, %)	N (n, %)	D (n, %)	SD (n, %)
P1	Maintaining patient confidentiality is crucial in nursing practice	179 (86.9)	22 (10.7)	1 (0.5)	0 (0.0)	4 (1.9)
P2	Informed consent is important to obtain before carrying out a procedure	191 (92.7)	13 (6.3)	1 (0.5)	1 (0.5)	0 (0.0)
P3	Ethical awareness is as important as clinical skills in nursing practice	160 (77.7)	42 (20.4)	3 (1.5)	0 (0.0)	1 (0.5)
P4	I should ignore my patient's wishes if they go against medical advice	17 (8.3)	11 (5.3)	26 (12.6)	50 (24.3)	102 (49.5)
P5	Nursing students should be punished for not recognizing ethical violations in clinical practice	6 (2.9)	48 (23.3)	88 (42.7)	44 (21.4)	20 (9.7)
P6	It is not important to follow ethical principles because I am still a student	8 (3.9)	4 (1.9)	12 (5.8)	100 (48.5)	82 (39.8)

Key – P: Perception, SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree.

Table 4 Determinants of ethical awareness (N = 206).

Item	Statement	DA (n, %)	D (n, %)	N (n, %)	A (n, %)	SA (n, %)
D1	The facility where I conduct clinical practice provides support for ethical decision-making	7 (3.4)	35 (17.0)	38 (18.4)	65 (31.6)	61 (29.6)
D2	My colleagues' behavior influences my ethical practice	18 (8.7)	74 (35.9)	55 (26.7)	48 (23.3)	11 (5.3)
D3	I skip certain ethical behaviors due to a lack of time	33 (16.0)	79 (38.3)	45 (21.8)	38 (18.4)	11 (5.3)
D4	High workload makes me forget to implement beneficence for my patient	27 (13.1)	87 (42.2)	31 (15.0)	49 (23.8)	12 (5.8)
D5	I do not implement ethical principles because they are not necessary	95 (46.1)	83 (40.3)	11 (5.3)	15 (7.3)	2 (1.0)
D6	Cultural and religious beliefs play a significant role in shaping my ethical awareness	17 (8.3)	41 (19.9)	46 (22.3)	50 (24.3)	52 (25.2)

Key – D: Determinants, SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree.

Table 5 Inferential statistics of KAP and ethical awareness among nursing students (p < .05 was statistically significant).

Hypothesis	Test used	Statistic	p-value	Effect size	Interpretation
H_1: Knowledge ↔ Perception	Pearson's correlation	r = 0.148	0.034	r^2 = 0.02 (small)	Significant, weak positive association
H_2: Knowledge ↔ Ethical Awareness	Pearson's correlation; Chi-square test	r = 0.202; χ^2 = 7.84 (df = 1)	0.005	r^2 = 0.04 (small)	Significant, weak positive association
H_3: Perception ↔ Ethical Awareness	Pearson's correlation	r = 0.423	0.020	r^2 = 0.18 (moderate)	Significant, moderate positive association

ethical practice, which informed them about the relevance of culturally sensitive ethics education in Nigeria.[2,7]

Our observations align with and extend findings in the literature on ethics education. The strong link between ethical attitudes and awareness resonates with neo-Kohlbergian theories of moral development, which stress that moral sensitivity and internal value orientation are crucial for ethical decision-making.[8] In fact, Rest et al.[3] argued that moral behavior is not determined by knowledge alone but involves multiple components – including moral judgment and moral feeling – that echo the importance of one's perceptions and attitudes in applying ethical principles.[3] Our finding that ethical perception was a better predictor of ethical awareness than factual knowledge supports this view. It is also consistent with the work of Alnajjar and Abou Hashish (2021), who found that nursing students' attitudes toward ethics had a significant impact on their moral sensitivity and ethical behavior.[8] In their correlational study, students with higher academic ethical awareness tended to exhibit higher moral sensitivity, and attitudinal factors explained nearly 29% of the variance in moral sensitivity. This parallels our result where perception

(attitude) explained a substantial portion of variance in ethical awareness, reinforcing that how students value and internalize ethics is pivotal.

Interestingly, while our students had very strong knowledge of general ethical principles, they were less familiar with the specific professional codes, such as the Nursing and Midwifery Council of Nigeria (NMCN) code of ethics. This discrepancy has been noted as a challenge in nursing education. Educators often focus on broad principles like autonomy, beneficence, and justice, but may underemphasize the detailed guidelines of local professional bodies.[9,11] Danacı and Erdoğan's recent study in Turkey (2025) hinted at a related issue: they observed that nursing students' positive attitudes toward ethical principles did not always translate into ethical sensitivity and caring behaviors in complex situations.[11] This suggests that simply knowing or even agreeing with ethical principles does not guarantee application in practice. Our findings echo this gap – students know what is right in theory but may struggle when contextual factors come in. Bridging that theory-practice gap requires more than factual instruction.

The higher ethical awareness observed in senior students is also supported by prior research. As students advance in their studies and gain clinical exposure, they often develop greater moral reasoning skills and empathy through experience. Alnajjar & Abou Hashish (2021) reported that academic level had a positive impact on students' ethical awareness, which aligns with our data and suggests a developmental progression.[8] Similarly, Dosumu et al., in a cross-sectional study of Nigerian nursing students, found generally moderate-to-high ethical awareness levels and noted that factors like the year of study significantly influenced ethical awareness.[9] These convergent findings underscore that maturity and repeated engagement with real patient care situations likely enhance students' ethical sensitivity over time.

Culture itself is another critical lens for understanding these results. Nigeria's cultural context is complex – a blend of indigenous values, religious moral codes, and influences from Western ethics education. This cultural perspective can complicate ethical decision-making. For instance, norms of deference to elders or community might conflict at times with the principle of patient autonomy introduced in Western-style ethics curricula.[12,13] The fact that about half of our students acknowledged their personal cultural or religious beliefs affected their ethical practice is telling. It suggests that ethical awareness is not developed in a vacuum but interacts with students' own value systems. Prior authors have noted that in collectivist or traditional societies, ethics training must be culturally sensitive.[2] The ICN Code of Ethics for Nurses emphasizes that while ethical principles are universal, their application may need to respect cultural context – for example, how truth-telling or end-of-life decisions are handled can vary by cultural norms.[2] Our findings suggest that effective ethics education in Nigeria (and indeed similar settings) should acknowledge and openly discuss cultural and religious dimensions of care so that students learn to reconcile professional duties with cultural expectations in a thoughtful way.

Consistent with earlier research, we also found that the institutional climate plays a role. Many students felt supported by their university and clinical instructors in making ethical decisions. This aligns with Dosumu et al., who identified that satisfaction with the learning environment and mentorship can shape ethical awareness.[9] A positive ethical climate – where ethical practice is modeled by mentors and encouraged through open discussion – likely reinforces students' confidence to act ethically.[9] Conversely, although not heavily reported by our students, factors like excessive workload, stress, or negative peer influence are well-known in literature to erode ethical practice. In our relatively controlled academic setting, these may not yet be prominent, but as new graduates transition to the workforce, we believe such factors could become significant.

This study is limited by its cross-sectional design, which prevents causal conclusions about the relationships among knowledge, perception, and ethical awareness. Self-reported data may also be subject to social desirability bias. In addition, because the sample came from a single private university, the findings may not generalize to all nursing and midwifery students in Nigeria. Future research should adopt longitudinal or intervention designs to track the development of ethical awareness over time, use more objective or observational measures of ethical behavior, and include multi-institutional samples to enhance generalizability. Further studies could also explore mediation and moderation models to clarify how knowledge, perception, gender, and cultural factors interact in shaping ethical competence.

In conclusion. Our paper found that undergraduate nursing and midwifery students demonstrated strong knowledge of ethical principles, with positive perceptions emerging as a stronger predictor of ethical awareness than knowledge alone. The Ethics education that emphasize reflective, practice-based, and culturally relevant approaches is essential to ensure that graduates are prepared to navigate complex ethical dilemmas in clinical settings.

Clinical trial number

Not applicable.

Ethical statement

Informed consent was obtained from all the participants of the study.

Funding declaration

There was no external funding for this study.

Conflict of interest statement

The authors declare no conflict of interest.

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