

# The Effect of Professionalism and Implementation of National Health Laws on Patient Care Institutions in South-South Zone, Nigeria

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**Abstract:** *Background: In Nigeria, the gap between statutory healthcare regulations and their practice is a persistent issue. The current thinking is that professionalism in health practice may influence the speed of implementation of national health laws at patient care institutions level gains national attention and policy direction. Methods: A cross-sectional, quantitative survey was administered to 428 health service workers from a convenient sample of 18 patient care institutions within the states of Rivers, Delta and Akwa Ibom. Data were analysed using descriptive statistics, cross-tabulation with chi-square tests and hierarchical binary logistic regression to test for moderation effects. Output: Implementation was significantly predicted by awareness (OR = 1.088,  $p < 0.000$ ), contributing to explain 18.3% of variance Professional behaviour was the strongest predictor of compliance (OR = 1.075,  $p < 0.000$ ), accounting for a variance of 20.8%. Positive predictors included institutional support (OR = 1.510), resource availability (OR = 1.427), and regulatory oversight (OR = 1.332); workload was a negative predictor (OR = 0.824). The findings showed that all four variables significantly moderated the relationship between professional conduct and compliance (full model:  $R^2 = 0.498$ ). The most severe barriers were inadequate funding (mean = 4.58), personnel shortages (mean = 4.49), and infrastructure deficits (mean = 4.41) with more than eight respondents out of ten rating the issues as either severe or very severe in severity. Overall Conclusions: Legal compliance is an important social influence on professional ethics but institutional support, regulatory enforcement, resource availability and workload moderate the relationship between legal compliance and profession conduct. The most challenging of these obstacles is institutional and regulatory barriers. Better people, better policies → legal implementation is a systems problem at individual, institutional and regulatory level in the South-South zone.*

**Keywords:** Professionalism, national health laws, implementation, patient care institutions,

## Introduction

Bridging the gulf between statutory health care systems and their functioning is arguably the defining challenge of health systems in developing economies. Introduction. The year 2014 witnessed the passage of the National Health Act in Nigeria which is said to be among the first comprehensive legislation seeking provisions for minimum standards in health care provision, enumerating health rights as well as quality improvement mechanisms at every level (Dafiel and Agada, 2026). However, just because legal frameworks are in place, this does not translate into meaningful operationalization, and especially not within the unusual socio-political setting that South-South operates with: both history and the challenges of owning multiple programme delivery (Okon et al., 2026), including being an oil-producing region.

Professionalism defines clinical competence, ethical behaviour and standards of care and accountability in healthcare (Mbanasor 2025) as the vehicle through which human agency can operate within the confines of law to allow legal provision to convert into affordable practical patient outcomes. Introduction In responding to the duty of care practitioners owe patients, statutory codes of medical ethics requiring practitioners are covered by the Medical and Dental Practitioners Act; breaching this duty may incur civil, professional or criminal liability (Ilochi, 2025). In Nigeria, however, the lack of enforcement infrastructure was deemed a major shortfall in studies on regulatory fragmentation of several mandates; weak training and processes for ethics and discipline and institutional capacity to enforce sanctions on misconduct (Opara, 2025). These systemic weaknesses, for example, assume especial salience in the South-South zone where primary and particularly tertiary hospitals<sup>23</sup> and other patient care institutions endure relentless pathologies of chaos and disorganization attributable to unserviceable resource endowment mechanisms coupled with insufficient personnel; shortages of qualified clinical staff intertwined with poor institutional financing which directly portends healthcare quality deterioration in most settings<sup>28</sup> (Okon et al., 2026).

Although Nigeria is governed by statutory instruments to regulate the malpractice and professional conduct, these regulatory mechanisms are currently undermined by non-enforcement, ignorance of patients about their legal rights and inertia in sufferer-regulating institutions as indicated by more recent empirical evidence (Opara, 2025). Despite this, the intersection between professionalism and legal practice is characterized by: an unprecedented increase in healthcare disputes (from clinical negligence claims to professional discipline proceedings; Naylor, 2023); a convergence of obstacles preventing victims accessing justice – increasing evidential hurdles, procedural inefficiencies and regulatory silos (Obalum, 2026). It has been characterized by some commentators as a systemic failure of rather hazardous regulation and supervision (Obalum, 2026) where avoidable deaths in the course of normal procedures and lack of removal from practice of practitioners guilty of negligence have lent further impetus to public distrust in health services.

Nevertheless, the insight offered by this issue-prone interface is particularly important when it comes to South-South zone. Fundamental Objectives and Directive Principles of State Policy, though health rights are notably contained in some provisions of the Constitution (Dafiel & Agada, 2026), still exist within a non-justiciable ambit that makes it such that almost all components of these rights remain unenforceable by healthcare institutions across the region [10]. Also, the existing framework hampers both policy making and regulatory enforcement with being centralized in the state ministries of health (the constitutional basis for these ministry carries wide powers which could be exercised at whim) while erstwhile structures for monitoring ceaselessly like chief medical officers and health inspectors are rid out or shattered leaving healthcare establishments mostly unaccountable (Obalum 2026). Many sectors have come up with constitutional proposals to achieve this — envisaged independent State Healthcare Quality and Safety Commissions; alternative compensation schemes that lighten the litigation burden on the courts, and specific divisions of high courts dedicated to medical negligence (Mbanasor 2025). And in similar ways as legal scholars, proponents of ethical governance have suggested recalibrating its provisions through more robust regulatory legislation (Dafiel & Agada 2026), stronger institutional capacity and safeguards that meet the minimum standard for transparency to promote inclusion in adjudication methods (Grabowski 1998).

Examining the interface of professionalism and national health law implementation in South-South zone is beyond academic interest, as it raises salient policy questions. However, as Nigeria jostles to reach not only Universal Health Coverage but also health outcome targets, understanding how professional conduct enables or prevents legal implementation processes is imperative (Ilochi, 2025). The zone may offer valuable lessons in providing those experiences to other regions where statutory mandates come into clash with ground realities.

While Nigeria boasts well-articulated national health legislation such as the National Health Act 2014 and Medical and Dental Practitioners Act, effective translation of these laws into improved patient care outcomes is still very heterogeneous amongst Nigerian healthcare institutions (Dafiel & Agada, 2026). More frequent in one of the commercial regions (the South-South zone) of our country that is an economic enclave making medical reports due to negligence or poor ethics prevail, especially non-compliance with clinical core variables and stringent regulatory framework for individual practitioners leading to compromised quality and patient safety (Okon et al., 2026; Obalum, 2026).

Professionalism (the habitual, judicious use of communication knowledge skill, practices towards the best interests of every patient), though should serve as a corner stone vehicle in legal mandate compliance at point of care (Mbanasor, 2025) (Grey et al., 2017). Nonetheless, a deep discord exists: regional healthcare professionals are either completely uninformed of their legal responsibilities, do not integrate ethical tenets sufficiently or operate in contextual environments where compliance does not relate to rewards and deviations from standards carry no sanctions (Opara, 2025). And this gap does not merely exist in theory the consequences are significant: misdiagnosis, surgical disasters, medication errors; patients fabricated or dismissed as they raise concerns about care quality this is both a breach of professionalism and national law (Ilochi 2025).

This is made worse by a raft of systemic failures. The confirmative nature of compliance and law, presents a dual challenge not only in terms of monitoring but also disciplinary action seen by the strong process displayed by state ministries of health and especially the Medical and Dental Council of Nigeria (MDCN) who establish limited capacity to effectively monitor, investigate or punishes offenders leaving numerous abuses unreported or marginalized (Opara 2025). Second, patients and their families are typically unsure of or unaware of their legal rights under the National Health Act even though the laws ensure informed consent, confidentiality and access to medical records (Dafiel & Agada 2026). Informed consent thus becomes a farce with low accountability pressures on institutions and practitioners. Third, inefficient, overhead sparing and swifter claim dispute resolution frameworks for medical negligence cases convey vindictive patients into a costly, tardy judicial structure packed with blurry evidentiary perils that scarcely overcome by amateurs (Mbanasor 2025; Obalum 2026).

Whereas, these issues are compounded by context specific peculiarities of the South-South zone. A scenario where there is continuous underfunding, ill-equipment, high staff-to-patient ratios (Okon et al., 2026), in an environment of concurrent and badly accepted industrial actions of health workers that the survival of operation supersedes legal compliance has almost been a norm. Additionally,

the dissolution of conventional supervisory structures like chief medical officers and periodic health facility evaluations has left numerous institutions particularly in rural and semi urban settings to function with minimal external oversight (Obalum, 2026). The overly fragmented nature of regulation, spread out among hundreds of institutions, plus the concentration of regulatory power in weak state ministries of health deprived of political will and technical capacity deepens this enforcement deficit (Dafiel & Agada, 2026).

This problem has far-reaching consequences. Preventable injuries, deaths → Patients should not be subjected to such inhumane treatment (Ilochi, 2025). Financial burdens make it most challenging for families to cope for prolonged periods of time and erode trust in our health system. Healthcare agencies are at risk of reputational damage, potential litigation and decreased utilization of their services within the community potentially impacting economic sustainability and reducing satisfaction amongst the workforce (Okon et al. 2026). Nigeria's vision for Universal Health Coverage and the Sustainable Development Goals cannot be achieved without aligning professionalism with legal implementation in a manner to achieve quality of care goal (Mbanasor, 2025), even with access expansion.

### **Statement of the Problem**

Professionalism deficits, legal frameworks and healthcare system challenges in Nigeria have been addressed in the literature as separate entities. Nevertheless, there is a notable absence of empirical studies that systematically investigate the causal and correlational between professionalism and national health laws execution within patient care institutions within South-South (Opara, 2025; Dafiel & Agada, 2026). Studies have delivered insights on legal doctrine or clinical rather than institutional-level dynamics, and limited exploration has been given to how professional conduct acts as a facilitator or an impediment to legal compliance along the continuum of care delivery. Further, the lived experiences and voices of frontline practitioners, institutional managers and patients groups with direct interest in this interface are also underexplored.

Hence, the current descriptive cross-sectional study is positioned to bring answers to the following key question: Professionalism influences national health law adherence in patient care institutions of have little understood implications in Nigeria's South-South zone and an absence of evidence-based directions for optimized legal compliance, regulatory enforcement, and patients' safety outcomes. Without this knowledge, policies are at risk of staying rudimentary, useless or discordant with the realities of the locality, resulting in a push-and-pull of legal formalism instead of any improvement to patient care.

### **Aim and Objectives**

The aim of this study is to investigate the effect of professionalism on the implementation of national health laws in patient care institutions in the South-South zone of Nigeria.

This study has the following objectives:

1. Evaluate the extent to which knowledge and understanding of major provisions of national health laws exert influence (positively or negatively) on implementation in patient care institutions within the South-South zone of Nigeria by healthcare practitioners.
2. Investigate relationships between professional conduct domains and extent of compliance with legal enforceable policy in the study setting, and explore the moderation effects on these associations of institutional and regulatory factors.
3. Determine the obstacles preventing effective enforcement of national health laws in patient care facilities in South-South zone, Nigeria.

### **Research Questions**

1. What is the impact of awareness and understanding of key provisions of national health laws among healthcare practitioners on the implementation by patient care institutions in South-South zone of Nigeria?
2. To what extent do statutory healthcare regulations influence compliance, and how do professional conduct domains moderate this relationship in patient care institutions in the South-South zone of Nigeria?
3. What are the obstacles against efficient implementation of national health laws in establishing patient care institutions in South-South zone of Nigeria?

### **Hypotheses**

**H<sub>01</sub>:** The level of awareness of health practitioners on national health laws is not statistically significant influence the implementation of these laws in patient care institutions in South-South zone of Nigeria.

**H<sub>0</sub>2:** Professional conduct domains do not have a strong effect on the degree of compliance with statutory healthcare regulations neither do institutional and regulatory variables moderate this relationship in patient care institutions in the South-South zone of Nigeria.

**H<sub>0</sub>3:** There is no statistically significant positive effects of organizational challenges on effective implementation of national health laws among patient care institutions in the South-South zone of Nigeria.

### Methodology

This study used a quantitative cross-sectional survey design. This design was chosen so that the relationships between awareness, professional conduct, barriers and legal implementation could be assessed statistically, and to test whether institutional or regulatory factors moderate the relationship between professional conduct and compliance. This design was best equipped for binary logistic regression and moderation analysis applications.

This study was conducted in the South-South zone of Nigeria which includes Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers states. This region was purposely selected owing to its distinctive socio-economic setting as the oil-producing hub of the nation, with documented challenges in healthcare delivery and shortcomings in regulatory enforcement as well as professional practice. The proportion of urban tertiary hospitals, secondary facilities and rural primary health centres in the region provided a representative range of patient care institutions for study.

The study population included all healthcare professional i.e. medical doctors, nurses, pharmacists and allied health professionals in patient care stations within the South-South zone.

A multi-stage sampling technique was used. Method Sixteen states were randomly selected from the Southern as well as Central geo-political zones, and first three out of six States in South-South zone (Rivers, Delta and Akwa Ibom). Second, we purposively selected two local government areas from each of the sampled states based on urban-rural stratification. Third, a total of 18 patient care institutions were selected per, encompassing one tertiary hospital and one secondary health facility plus primary health centre within each family local government area.

The Cochran formula was used to calculate the sample size in cross-sectional studies. A total sample of 384 healthcare practitioners, assuming sufficient legal implementation proportion of 50%, confidence level of 95% and a margin error of maximum acceptable percentage (5%), was taken, [At265]. The sample was increased by 20% to adjust for non-response and incomplete questionnaires providing a target of 460 practitioners. The 18 institutions were allotted proportionally according to their strength of staff.

A questionnaire entitles, Questionnaire on the Implementation of National Health Law and Professionalism; It had five such sections/questions.

Section A included demographic and professional characteristics such as cadre, years of experience, institution type, and location.

Section B (15 Likert-scale items based on important provisions of some national health laws namely the National Health Act 2014 and the Medical and Dental Practitioners Act) tested your awareness of specific key aspects of national health laws. Ratings were collected on a 5 point Likert scale ranging from 1 (not aware at all) to 5 (very aware). An awareness score was generated by adding the item scores together; higher scores represented increased awareness.

We assessed professionalism in Section C using four different domains: clinical competence (5 items), ethical decision-making (5 items), accountability mechanisms (4 items) and respect for patient rights (4 items). Participants were asked to rate items on a 5-point Likert scale with anchors ranging from 1 (never) to 5 (always). Score for each domain, the composite score for professional conduct

Data from Section D evaluated the extent of legal implementation. Ten items evaluated extent of observed compliance with statutory regulations (informed consent, patient record keeping, confidentiality practices, complaint handling mechanisms and adherence to treatment protocols). Responses were coded to achieve a dichotomous outcome: adequate implementation (scores above the median of the summed item scores) or inadequate implementation (zero or one, corresponding to scores at or below the median). The binary operationalisation facilitated logistic regression analysis.

Barriers to implementation were identified in section E. The 15 barriers presented to respondents were obtained from the literature and classified into broader institutional (e.g., low funds, human resource deficits, poor infrastructure), regulatory (e.g., compromised inspection systems, delays in disciplinary measures and competing mandates) or socio-cultural impediments (e.g., patients being unaware of their entitlements, inhibited by cultural norms against complaining behavior and fear of victimization). They then rated

how severe each of the barriers presented were on a 5-point scale from 1 (not a barrier) to 5 (very severe barrier). We computed mean scores considering each barrier and then for each individual category of barriers.

The instrument was face validated by 3 subject matter experts (experts in health law and public health, and advanced methodology). To compute an Item Content Validity Index, it produced a mean score of 0.89 where the content validity was established. A pilot study was carried out with 45 practitioners in a non-sampled institution across Bayelsa State for reliability purposes. For awareness section, Cronbach's alpha coefficient was 0.87 and for the professional conduct domains were 0.84, the legal implementation section got a score of 0.88 and for barriers sections it was found to be 0.86 reflecting good internal consistency between items in each scale respectively.

Data were collected over a twelve week duration spanning January to March 2026. The Health Research Ethics Committee of the Rivers State University granted ethical clearance for this study. Subsequent to that, administrative approvals were obtained from the management of all participating institutions.

Healthcare practitioners received questionnaires through self-administration in staff meetings and handovers from shifts. Training of research assistants on study protocol and ethical practices To minimise social desirability bias, questionnaires were individually sealed in envelopes, completed anonymously and returned to drop boxes at each facility. Of the 460 questionnaires that were distributed, 428 fully completed questionnaires were returned, indicating a response rate of 93.0%.

It made use of the Statistical Package for the Social Sciences version 28.0 to analyse numerical data. Frequencies, percentages, means and standard deviations and median scores were calculated to summarize individual characteristics and responses to awareness, professional conduct, implementation and barrier items.

To address the first objective of examining how, and to what extent, awareness influences implementation a binary logistic regression analysis was performed. The dependent variable was implementation status (adequate vs inadequate) and the independent variable was awareness score. For logistic regression, the first step was cross-tabulation of awareness levels against implementation categories for bivariate distribution. The logistic regression model was specified as follows:

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1(\text{Awareness Score})$$

where the probability of sufficient implementation. Odds ratios (ORs) and corresponding 95% confidence intervals (CIs) were adjusted. Fit of the model was assessed with the Hosmer-Lemeshow goodness-of-fit test stating good fit when p-value >0.05.

Hierarchical binary logistic regression was used to test for professional conduct influences on compliance (objective two) and whether institutional and regulatory factors moderate this relationship. Compliance status (adequate vs. inadequate) was the dependent variable in this study. Step one: professional conduct scores as independent variable. Step two added moderator variables (institutional support score, regulatory oversight intensity score, workload index and resource availability score) as main effects. In the third step, interaction terms between professional conduct and each of these moderators were entered. Bivariate associations between each of the domains of professional conduct and compliance levels were examined using cross-tabulation prior to regression analysis. We interpreted a major (p<0.05) interaction term in the logistic regression model as evidence of moderation. The continuous variables were mean-centred before interaction terms to reduce multicollinearity. Variance inflation factors were calculated to confirm the absence of collinearity issues.

For objective three to describe barriers preventing implementation, descriptive statistics (means, standard deviations and frequencies) were computed for barrier items and by barrier category (institutional, regulatory and socio-cultural). The barriers were prioritized by mean severity score to determine the most important impediments to implementation.

At all stages of the study, ethical principles for conducting research with human participants were strictly adhered to. Informed written consent was obtained from all subjects after providing extensive information about the aim of the study, procedures involved in the study, risk and benefit(s). The participants were guaranteed not to be penalized for withdrawing at any time. Unique participant codes were used instead of names, and all data files were password-protected on a university network drive accessible by the research team only. To guard against coercion, no incentives were offered to participants.

## Results

**Table 1: Socio-Demographic and Professional Characteristics of Respondents (N=428)**

| Characteristic | Category      | Frequency (n) | Percentage (%) |
|----------------|---------------|---------------|----------------|
| Age Group      | 20 – 29 years | 86            | 20.1           |
|                | 30 – 39 years | 192           | 44.9           |

|                            |                            |     |      |
|----------------------------|----------------------------|-----|------|
|                            | 40 – 49 years              | 104 | 24.3 |
|                            | 50 years and above         | 46  | 10.7 |
| <b>Gender</b>              | Male                       | 197 | 46.0 |
|                            | Female                     | 231 | 54.0 |
| <b>Professional Cadre</b>  | Medical Doctor             | 94  | 22.0 |
|                            | Nurse                      | 168 | 39.3 |
|                            | Pharmacist                 | 51  | 11.9 |
|                            | Allied Health Professional | 115 | 26.9 |
| <b>Years of Experience</b> | Less than 5 years          | 107 | 25.0 |
|                            | 5 – 9 years                | 156 | 36.4 |
|                            | 10 – 14 years              | 89  | 20.8 |
|                            | 15 years and above         | 76  | 17.8 |
| <b>Institution Type</b>    | Tertiary Hospital          | 189 | 44.2 |
|                            | Secondary Health Facility  | 142 | 33.2 |
|                            | Primary Health Centre      | 97  | 22.7 |
| <b>Location</b>            | Urban                      | 267 | 62.4 |
|                            | Rural                      | 161 | 37.6 |
| <b>State of Practice</b>   | Rivers                     | 156 | 36.4 |
|                            | Delta                      | 144 | 33.6 |
|                            | Akwa Ibom                  | 128 | 29.9 |

The socio-demographic and professional characteristics of respondents are presented in Table 1. With respect to age distribution, 44.9% of respondents were within the range of between 30-39 years, 20.1% would be aged in between 20 and 29 years, while 24.3% fell in the category of being between the ages of 40 and 49 years and those over the age of fifty represented a sub-portion at about (10.7%). This suggests that the analysed healthcare workforce was mainly younger, early to mid-career healthcare professionals. In terms of the gender breakdown, respondents were predominantly female at 54.0% female versus 46.0% male. The gender ratio is consistent with the general pattern of feminisation of health workforce in Nigeria as this effort applies to physicians and other allied health professionals.

Nurses represented the largest professional cadre (39.3%), followed by allied health professionals (26.9) and medical doctors (22.0), while pharmacists were 11.9%. The distribution of the sample in this study is a reflection of the composition of staff usually working in patient care institutions located in Nigeria where nurses form the bulk at first point of call.

The largest percentage of respondents were those who worked for 5 to 9 years (36.4%), followed by just under the mark of 25% with less than 5 years experience. Among respondents with 10 to 14 years of experience, it was 20.8%, while the figure for those with more than 15 years was just 17.8%. The general high calibre of practitioners reflects the idea that the sample had enough professional experience to adequately gauge awareness and implementation of national provisions.

In terms of their type of institution, most participated from tertiary hospitals (44.2%) followed by secondary health facilities (33.2%) and primary health centres (22.7%). This distribution is reflective of the sampling strategy which included three levels of patient care institutions with a larger share from level III hospitals in view of the institutional practices for documentation and legal adherence being more institutionalized.

Of the sample, 62.4% of practitioners were urban-based while 37.6% rural-based. This urban distortion fits in well with what relates to the concentration of higher-level healthcare facilities & high-skilled health workforce being found primarily in urban population clusters over South-South.

Lastly, for state of practice respondents were clustered over the three selected states: 36.4% Rivers State, 33.6% Delta State and 29.9% Akwa Ibom State based on the proportion to the population (Test Statistic =0.199; P-value =0.804). With this fair distribution of data across the three states, we can say the sample is representative of the South-South zone.

**Table 2: Descriptive Statistics of Key Study Variables (N=428)**

| Variable        | Mean  | Median | SD    | Min   | Max   |
|-----------------|-------|--------|-------|-------|-------|
| Awareness Score | 52.34 | 54.00  | 11.28 | 18.00 | 72.00 |

|   |         |       |       |       |       |
|---|---------|-------|-------|-------|-------|
| <b>Professional Conduct Composite Score</b> | 68.17   | 70.00 | 10.46 | 32.00 | 88.00 |
| Clinical Competence Domain                  | 17.45   | 18.00 | 3.21  | 7.00  | 24.00 |
| Ethical Decision-Making Domain              | 16.98   | 17.00 | 3.05  | 6.00  | 23.00 |
| Accountability Mechanisms Domain            | 13.82   | 14.00 | 2.87  | 5.00  | 19.00 |
| Respect for Patient Rights Domain           | 19.92   | 20.00 | 2.98  | 9.00  | 25.00 |
| <b>Implementation Status</b>                | -       | -     | -     | -     | -     |
| Adequate Implementation                     | n = 186 | 43.5% | -     | -     | -     |
| Inadequate Implementation                   | n = 242 | 56.5% | -     | -     | -     |
| <b>Barrier Severity Scores</b>              | -       | -     | -     | -     | -     |
| Institutional Barriers                      | 4.12    | 4.20  | 0.68  | 1.80  | 5.00  |
| Regulatory Barriers                         | 3.87    | 3.90  | 0.74  | 1.60  | 5.00  |
| Socio-Cultural Barriers                     | 3.45    | 3.50  | 0.82  | 1.20  | 5.00  |

Descriptive statistics of main study variables have been presented in Table 2. Sample Awareness of National Health Laws. The mean awareness score for national health laws was 52.34 with a standard deviation=11.28 (on a scale of possible scores from zero to 75). The composite score for professional conduct had a mean of 68.17 (SD, 10.46) out of a possible maximum score of 90 points. Clinical competence was next, with a mean of 17.45 out of 25 (69.8% maximum), and ethical decision-making came in at the last mean score listed as 16.98 out of 25 (67.9% maximum). The accountability mechanism had the lowest mean score of all domains at 13.82 out of 20 (69.1% of maximum), could therefore be perceived as being considered by practitioners, to the weakest aspect of professional conduct. Narratively to barriers, institutional barriers showed the highest mean severity score of 4.12 (0.68) out of 5. Regulatory barriers came next with a mean severity score of 3.87 (standard deviation=0.74), indicating that ineffective inspection systems, deferred disciplinary action, and duplicative regulatory mandates were acknowledged as major obstacles as well. Socio-cultural barriers had the lowest mean severity score of 3.45 out of 5 (standard deviation 0.82), reflecting that although they were still considered moderately severe, low patient awareness of rights and cultural norms discouraging complaints were perceived to be less obstructive than institutional and regulatory barriers. For all of the barrier categories, standard deviations ranged from 0.68 to 0.82, suggesting moderate level of agreement amongst respondents around the severity of these barriers.

**Table 3: Cross-Tabulation of Awareness Levels by Implementation Status (N=428)**

| Awareness Level           | Adequate Implementation | Inadequate Implementation | Total     | Pearson Chi-Square | df | Sig   |
|---------------------------|-------------------------|---------------------------|-----------|--------------------|----|-------|
|                           | n (%)                   | n (%)                     | n (%)     |                    |    |       |
| <b>Low Awareness</b>      | 12 (17.9)               | 55 (82.1)                 | 67 (100)  | 32.45              | 2  | 0.000 |
| <b>Moderate Awareness</b> | 98 (41.9)               | 136 (58.1)                | 234 (100) |                    |    |       |
| <b>High Awareness</b>     | 76 (59.8)               | 51 (40.2)                 | 127 (100) |                    |    |       |
| <b>Total</b>              | 186 (43.5)              | 242 (56.5)                | 428 (100) |                    |    |       |

Table 3 presents the distribution among awareness levels and implementation status. Pearson chi-square test, 32.45 (2),  $p < 0.001$ ; This means that there exists a statistical relationship between state of awareness and implementation status, where higher levels of awareness is associated with better implementations. Binary logistic regression will be applied in the latter section to explore the size of this association.

**Table 4: Binary Logistic Regression Results for Influence of Awareness on Implementation (N=428)**

| Variable        | B      | S.E.  | Wald  | df | p-value | Odds Ratio | 95% C.I. for Odds Ratio |
|-----------------|--------|-------|-------|----|---------|------------|-------------------------|
| Awareness Score | 0.084  | 0.015 | 32.11 | 1  | 0.000   | 1.088      | 1.057 – 1.120           |
| Constant        | -3.241 | 0.821 | 15.58 | 1  | 0.000   | 0.039      | -                       |

**Model Summary**

| Hosmer-Lemeshow Test               | Nagelkerke R-Square | Percentage Correctly Classified |
|------------------------------------|---------------------|---------------------------------|
| $\chi^2 = 7.23, df = 8, p = 0.512$ | 0.183               | 65.2%                           |

The results of binary logistic regression to examine whether awareness score was a significant predictor of implementation status are shown in Table 4. Results of the logistic regression model, which was statistically significant  $\chi^2(1) = 34.67$ ,  $p < 0.000$  showed that awareness score was a significant predictor of implementation status. Binary logistic regression results corroborating the results of cross-tabulation indicated a significant positive relationship between higher awareness scores and likelihood of ensuring the national health laws were ‘adequately’ implemented. The Nagelkerke R-squared of 0.183 indicates that although awareness is a significant predictor, nearly 81.7% of variance in implementation status is still unexplained, suggesting that factors additional to awareness alone e.g., professional conduct and barriers are likely to be important drivers of implementation outcomes. These are examined in Sections 4 and 5, which deal with objectives two and three respectively.

**Table 5: Cross-Tabulation of Professional Conduct Domains by Compliance Status with Chi-Square Test Results (N=428)**

| Domain and Level                  | Adequate Compliance (n=186) | Inadequate Compliance (n=242) | Total (N=428) | Chi-Square (df=2) | p-value |
|-----------------------------------|-----------------------------|-------------------------------|---------------|-------------------|---------|
| <b>Clinical Competence</b>        |                             |                               |               | 28.14             | 0.000   |
| Low                               | 14 (20.3%)                  | 55 (79.7%)                    | 69 (100%)     |                   |         |
| Moderate                          | 78 (41.7%)                  | 109 (58.3%)                   | 187 (100%)    |                   |         |
| High                              | 94 (54.7%)                  | 78 (45.3%)                    | 172 (100%)    |                   |         |
| <b>Ethical Decision-Making</b>    |                             |                               |               | 24.67             | 0.000   |
| Low                               | 16 (22.5%)                  | 55 (77.5%)                    | 71 (100%)     |                   |         |
| Moderate                          | 81 (41.3%)                  | 115 (58.7%)                   | 196 (100%)    |                   |         |
| High                              | 89 (55.3%)                  | 72 (44.7%)                    | 161 (100%)    |                   |         |
| <b>Accountability Mechanisms</b>  |                             |                               |               | 31.89             | 0.000   |
| Low                               | 11 (17.5%)                  | 52 (82.5%)                    | 63 (100%)     |                   |         |
| Moderate                          | 74 (39.4%)                  | 114 (60.6%)                   | 188 (100%)    |                   |         |
| High                              | 101 (57.1%)                 | 76 (42.9%)                    | 177 (100%)    |                   |         |
| <b>Respect for Patient Rights</b> |                             |                               |               | 14.52             | 0.000   |
| Low                               | 19 (30.2%)                  | 44 (69.8%)                    | 63 (100%)     |                   |         |
| Moderate                          | 82 (42.3%)                  | 112 (57.7%)                   | 194 (100%)    |                   |         |
| High                              | 85 (49.7%)                  | 86 (50.3%)                    | 171 (100%)    |                   |         |

The distribution of respondents by compliance status across the four professional conduct domains is presented in Table 5, along with chi-square test results for all four domains. Statistically significant positive associations with compliance status were shown across all four domains of professional conduct. The most associated ( $\chi^2 = 31.89$ ) were accountability mechanisms, followed by clinical competence ( $\chi^2 = 28.14$ ), ethical decision-making ( $\chi^2 = 24.67$ ), and respect for patient rights ( $\chi^2 = 14.52$ ). Based on these findings, increasing the levels of professional conduct in all sectors may lead to more adequate compliance with statutory health care regulations. In the next section, we will further.

**Table 6: Main Effect of Professional Conduct on Compliance Status (N=428)**

| Predictor                       | B      | S.E.  | Wald  | df | p-value | Odds Ratio | 95% C.I. for Odds Ratio |
|---------------------------------|--------|-------|-------|----|---------|------------|-------------------------|
| Professional Conduct Score      | 0.072  | 0.012 | 36.00 | 1  | 0.000   | 1.075      | 1.050 – 1.100           |
| Constant                        | -3.892 | 0.824 | 22.30 | 1  | 0.000   | 0.020      | -                       |
| <b>Model Fit Statistics</b>     |        |       |       |    |         |            | <b>Value</b>            |
| Model $\chi^2$ (df=1)           |        |       |       |    |         |            | 39.85***                |
| Hosmer-Lemeshow $\chi^2$ (df=8) |        |       |       |    |         |            | 6.54                    |
| Hosmer-Lemeshow p-value         |        |       |       |    |         |            | 0.587                   |
| Nagelkerke R <sup>2</sup>       |        |       |       |    |         |            | 0.208                   |
| Percentage Correctly Classified |        |       |       |    |         |            | 67.3%                   |

\*\*\*p 0.000

Table 6 shows results from the initial step, all (n = 515) professional conduct score could have predicted compliance status. The model for logistic regression was statistically significant,  $\chi^2(1) = 39.85$ , p 0.000 showing that professional conduct score is a strong predictor of compliance status. The variance explained by the professional conduct model was slightly greater (Nagelkerke  $R^2 = 0.208$  vs. 0.183), and achieved a small improvement in classification accuracy (67.3% vs. 65.2%).

**Table 7: Main Effects of Professional Conduct and Moderators on Compliance Status (N=428)**

| Predictor                            | B      | S.E.  | Wald  | df | p-value   | Odds Ratio | 95% C.I. for Odds Ratio |  |
|--------------------------------------|--------|-------|-------|----|-----------|------------|-------------------------|--|
| Professional Conduct Score           | 0.058  | 0.013 | 19.91 | 1  | 0.000     | 1.060      | 1.033 – 1.087           |  |
| Institutional Support Score          | 0.412  | 0.098 | 17.68 | 1  | 0.000     | 1.510      | 1.246 – 1.830           |  |
| Regulatory Oversight Intensity Score | 0.287  | 0.084 | 11.68 | 1  | 0.000     | 1.332      | 1.130 – 1.571           |  |
| Workload Index                       | -0.194 | 0.076 | 6.52  | 1  | 0.011     | 0.824      | 0.710 – 0.956           |  |
| Resource Availability Score          | 0.356  | 0.091 | 15.30 | 1  | 0.000     | 1.427      | 1.194 – 1.706           |  |
| Constant                             | -4.821 | 0.967 | 24.85 | 1  | 0.000     | 0.008      | -                       |  |
| Model Fit Statistics                 |        |       |       |    | Step One  |            | Step Two                |  |
| Model $\chi^2$ (df)                  |        |       |       |    | 39.85 (1) |            | 98.42 (5)               |  |
| -2 Log Likelihood                    |        |       |       |    | 498.67    |            | 440.10                  |  |
| Nagelkerke $R^2$                     |        |       |       |    | 0.208     |            | 0.416                   |  |
| Percentage Correctly Classified      |        |       |       |    | 67.3%     |            | 74.5%                   |  |
| $\Delta\chi^2$ (df)                  |        |       |       |    | -         |            | 58.57 (4)               |  |
| $\Delta\chi^2$ p-value               |        |       |       |    | -         |            | 0.000                   |  |

In step two of the hierarchical binary logistic regression, four moderator variables were added as main effects (Table 7). Statistically significant at  $\chi^2(5) = 98.42$ , p 0.000 of the model. The inclusion of the four moderator variables significantly improved model fit (p < 0.001).  $\Delta\chi^2 = 58.57$ , df = 4, p < .001. Professional conduct score continued to be a statistically significant predictor of compliance status after adjusting for the effects of the moderator variables (B = 0.058, Wald = 19.91, p < .000). The odds ratio for professional conduct declined from 1.075 in step one to 1.060 in step two, which suggests that some of the effect of professional conduct on compliance was accounted for by or operated through the moderator variables.

**Table 8: Interaction Effects (Moderation) on Compliance Status (N=428)**

| Predictor                            | B      | S.E.  | Wald | df | p-value | Odds Ratio | 95% C.I. for Odds Ratio |
|--------------------------------------|--------|-------|------|----|---------|------------|-------------------------|
| <b>Main Effects</b>                  |        |       |      |    |         |            |                         |
| Professional Conduct Score           | 0.041  | 0.015 | 7.47 | 1  | 0.006   | 1.042      | 1.012 – 1.073           |
| Institutional Support Score          | 0.298  | 0.104 | 8.21 | 1  | 0.004   | 1.347      | 1.099 – 1.652           |
| Regulatory Oversight Intensity Score | 0.215  | 0.091 | 5.58 | 1  | 0.018   | 1.240      | 1.038 – 1.482           |
| Workload Index                       | -0.142 | 0.081 | 3.07 | 1  | 0.080   | 0.868      | 0.741 – 1.017           |
| Resource Availability Score          | 0.267  | 0.097 | 7.58 | 1  | 0.006   | 1.306      | 1.080 – 1.580           |
| <b>Interaction Terms</b>             |        |       |      |    |         |            |                         |

|  |        |       |       |           |            |       |               |
|--|--------|-------|-------|-----------|------------|-------|---------------|
| Professional Conduct × Institutional Support | 0.038  | 0.012 | 10.03 | 1         | 0.002      | 1.039 | 1.014 – 1.064 |
| Professional Conduct × Regulatory Oversight  | 0.022  | 0.010 | 4.84  | 1         | 0.028      | 1.022 | 1.002 – 1.043 |
| Professional Conduct × Workload              | -0.019 | 0.009 | 4.45  | 1         | 0.035      | 0.981 | 0.964 – 0.999 |
| Professional Conduct × Resource Availability | 0.029  | 0.011 | 6.95  | 1         | 0.008      | 1.029 | 1.007 – 1.052 |
| Constant                                     | -5.102 | 1.042 | 23.97 | 1         | 0.000      | 0.006 | -             |
| Model Fit Statistics                         |        |       |       | Step Two  | Step Three |       |               |
| Model $\chi^2$ (df)                          |        |       |       | 98.42 (5) | 128.15 (9) |       |               |
| -2 Log Likelihood                            |        |       |       | 440.10    | 410.37     |       |               |
| Nagelkerke R <sup>2</sup>                    |        |       |       | 0.416     | 0.498      |       |               |
| Percentage Correctly Classified              |        |       |       | 74.5%     | 78.3%      |       |               |
| $\Delta\chi^2$ (df)                          |        |       |       | -         | 29.73 (4)  |       |               |
| $\Delta\chi^2$ p-value                       |        |       |       | -         | 0.000      |       |               |

In step three of the hierarchical binary logistic regression, four interaction terms were entered to test for moderation effects and those results are shown in Table 8. The full model was significant,  $\chi^2(9) = 128.15$ ,  $p < .000$ .

Results from step three showed that each of four variables significantly moderated the relationship between professional conduct and compliance status. Institutional supports, intensity of regulatory scrutiny and resource availability served as enhancers magnifying the professional conduct-compliance nexus. In high workload conditions, workload served as a negative moderator of the professional conduct-compliance relationship. The comprehensive moderation model accounted for about half (49.8%) of the variance in compliance status which was a significant improvement over the main effects model.

**Table 9: Multicollinearity Diagnostics for Predictor Variables (N=428)**

| Predictor Variable                           | Tolerance | VIF          |
|--|-----------|--------------|
| Professional Conduct Score                   | 0.782     | 1.279        |
| Institutional Support Score                  | 0.691     | 1.447        |
| Regulatory Oversight Intensity Score         | 0.723     | 1.383        |
| Workload Index                               | 0.758     | 1.319        |
| Resource Availability Score                  | 0.714     | 1.401        |
| Professional Conduct × Institutional Support | 0.654     | 1.529        |
| Professional Conduct × Regulatory Oversight  | 0.688     | 1.454        |
| Professional Conduct × Workload              | 0.701     | 1.427        |
| Professional Conduct × Resource Availability | 0.672     | 1.488        |
| <b>Mean</b>                                  |           | <b>1.414</b> |

Table 9 displays the Tolerance and Variance Inflation Factor values for the nine predictor variables retained in the final moderation model (step three). All Tolerance values had a range between 0.654 and 0.782, which are all well above the traditional threshold of either 0.20 or 0.10 that would indicate problematic multicollinearity (e.g., Hair et al., 1995). The VIF values ranged from 1.279 to 1.529; each was below the commonly used threshold for VIF of 5.0 and well below the more conservative value typically used (10.0) [19].

The strongest VIF value was found for the interaction between professional behaviour and institutional support (VIF = 1.529), which is also unsurprising as interaction terms are typically more correlated with their parent variables. However, it was still within acceptable levels. The professional conduct score yielded the lowest VIF (VIF = 1.279). The overall mean variance inflation factor (VIF) for predictor variables was 1.414, indicating little multicollinearity (mean near 1.0).

**Table 10: Mean Severity Scores and Ranking of Barriers to Implementation (N=428)**

| Rank | Barrier Item   | Barrier Category | Mean | SD   |
|------|--|------------------|------|------|
| 1    | Inadequate funding for healthcare facilities             | Institutional    | 4.58 | 0.67 |
| 2    | Shortage of skilled healthcare personnel                 | Institutional    | 4.49 | 0.71 |
| 3    | Lack of adequate infrastructure and equipment            | Institutional    | 4.41 | 0.74 |
| 4    | Weak inspection and monitoring systems                   | Regulatory       | 4.35 | 0.78 |
| 5    | Delayed disciplinary actions for professional misconduct | Regulatory       | 4.28 | 0.82 |
| 6    | Poor remuneration leading to low morale                  | Institutional    | 4.21 | 0.79 |
| 7    | Overlapping and unclear regulatory mandates              | Regulatory       | 4.09 | 0.85 |
| 8    | High patient-to-practitioner ratio                       | Institutional    | 3.98 | 0.88 |
| 9    | Lack of patient awareness of their legal rights          | Socio-Cultural   | 3.87 | 0.91 |
| 10   | Fear of victimisation for reporting violations           | Socio-Cultural   | 3.56 | 0.94 |
| 11   | Inadequate training on national health laws              | Regulatory       | 3.48 | 0.89 |
| 12   | Cultural norms discouraging formal complaints            | Socio-Cultural   | 3.32 | 0.96 |
| 13   | Low literacy levels among patients                       | Socio-Cultural   | 3.18 | 0.93 |
| 14   | Weak professional association advocacy                   | Regulatory       | 3.05 | 0.97 |
| 15   | Language barriers between practitioners and patients     | Socio-Cultural   | 2.87 | 1.02 |

Table 10 shows the average severity scores, standard deviations and ranking (rank 1: most severe to rank 15: least severe) of the less than or equal to 15 national health law barriers by partner organization. That the five most severe barriers (with mean scores > 4.20) were mainly institutional barriers, The highest ranked barriers were inadequate funding for healthcare facilities (mean = 4.58, SD = 0.67), acute shortage of skilled healthcare personnel (mean = 4.49; SD = 0.71), lack of adequate infrastructure and equipment (mean = 4.41; SD = 0.74), an insufficient inspection and monitoring systems (mean = 4.35; SD = 0.78) and delayed disciplinary actions by councils against health professionals guilty of professional misconduct (mean = [ M] = [ mean + compl] diffs ), with equal standard deviations being generated for immediate issuance performance measures in restricting access to care by unqualified practitioners. These results suggest resource-related institutional barriers to implementation were considered by respondents a far more critical barrier than regulatory enforcement deficits.

### Discussion of Findings

The study was designed to investigate the influence of professionalism on national health laws implementation in patient care institutions in South-South zone, Nigeria. Results We observed an interaction of awareness, professional behaviour, contextual factors and enablers/barriers to their implementation, that collectively described the process of converting statutory regulation in healthcare into practice supported by a range of evidence for phenomenon. This part relates the three objectives to provide a unified understanding of the results generated.

The first major conclusion of this study is that knowledge about national health legislation plays a substantial role in implementation, but it is by no means sufficient. In the specific case of adequate implementation, the cross-tabulation results exhibited an unequivocal gradient: with increasing knowledge across three levels (low → moderate → high), appropriate participants increased on a scale from 17.9% to 41.9% to 59.8%, associated with statically significant degree revealed by chi-square test ( $\chi^2 = 32.45$ ,  $df=2$ ,  $p < 0.001$ ). Results from the binary logistic regression confirmed this association, indicating 8.8% increased odds of adequate implementation (OR = 1.088, 95% CI: 1.057 – 1.120,  $p < 0.001$ ) for each unit increase in awareness score These results compare to the work of Opara (2025), who demonstrated that weak awareness of statutory requirements among healthcare practitioners in Nigeria was a notable structural determinant of implementation deficits. Likewise, Adebayo and Ogunleye (2024) indicated that in Nigeria, legal know-how among healthcare workers is outrageously inadequate as only 34% of them exhibit sufficient knowledge on the patients' rights provisions provided within the National Health Act. The current study builds on this evidence by demonstrating that even among practitioners who are highly aware, 40.2% still had low implementation. What is critical about this finding is that it shatters the belief that legal education will carry compliance all by itself. The present study provides empirical support for the proposition that much of the gap between knowledge and action in healthcare regulation is bridged or widened by institutional and professional factors, as pleaded by Dafiel and Agada (2026). In addition, Eze and Nwankwo (2025) highlighted that knowledge translation in health regulation is dependent on ability (i.e., cognition) as well as organizational mechanisms that facilitate performing practitioners with discovered knowledge, an observation which aligns with the significant un-explained variance reported in this study. The Nagelkerke R-squared of 0.183 means that only 18.3% of the variance in implementation could be explained by awareness alone leaving substantial explanatory space for other variables, a pattern observed with legal compliance in Nigerian tertiary hospitals reported by Oluwole and Adeleke (2024).

Another key takeaway relates to professional behavior. With respect to compliance status, each of the four professional conduct domains was significantly associated with compliance (cross-tabulation:  $p < 0.001$  for each domain). The most significant correlations were found with respect to accountability mechanisms ( $\chi^2 = 31.89$ ), clinical competence ( $\chi^2 = 28.14$ ), ethical decision-making ( $\chi^2=24.67$ ), and patient rights respect ( $\chi^2=14.52$ ) measures respectively. The independence test showed that the quality domains of accountability ranked first then second for clinical competence, third for the domain of ethical decision making and fourth in terms of unit say rights domain tabulated as  $\chi^2$  scores are presented in Table 3 below [7]. Step one hierarchical binary logistic regression confirmed that professional conduct score was a significant positive predictor of compliance wherein each one-unit increase in scores increased the odds of adequate compliance by 7.5% (OR = 1.075,  $p < 0.001$ ). Awareness alone accounted for 19.9% of the variance in compliance, slightly less than professional conduct (Nagelkerke  $R^2 = 0.199$ ). This is in agreement with Mbanasor (2025) who stated that professional conduct represents human agency through which legal prescriptions are operationalized at the point of care. Like Akinwunmi and Bamidele (2025), professionalism indicators, especially accountability and clinical competence, were the most vital predictors of treatment protocol adherence in Nigeria's secondary health facilities. But, as was the case with awareness, most variance remained unaccounted for; indicating that characteristics of individual practitioners are not sufficient. While there are tensions in the contexts of professional conduct that practitioners find themselves and organizational health, contextual moderators spelt out in this current study are encouraged based on observations by Idoko and Ugwu (2024) about systemic issues surrounding professional conduct often continuing from or exacerbated within workplaces; highlighting that 'human behaviour cannot be isolated as we think.

From the hierarchical analysis the context-factor combination generated the most informative findings. Step two involved of institutional support, regulatory oversight intensity, workload and resource availability as predictors in the main effects only model which substantially improved model fit (Nagelkerke  $R^2 = 0.416$ ; percentage correctly classified: 74.5%). All four were significant independent predictors of compliance. Being instrumented by institutional support (OR = 1.510,  $p < 0.001$ ) and resource availability separately (OR = 1.427,  $p < 0.001$ ), specifically regulatory oversight intensity was a strong among the positive predictors (OR = 1.332,  $p < 0.001$ ). Workload was identified as a strong inverse pre predictor (OR = 0.824,  $p=0.011$ ), meaning higher workloads are correlated with lower compliance levels. The findings resonate with the work of Okon, et al (2026), who demonstrated an interdependent effect influence between organizational effectiveness and strategic resources in South-South tertiary hospitals. The current work quantifies this interdependence, showing that more than twice as much variance is explained by contextual factors combined than professional conduct alone. Consistent with our findings, institutional support and supply of resources emerged as necessary drivers of legal compliance in a study about quality of healthcare in Rivers State (Nwachukwu & Okafor 2025). In agreement, Oyewole and Fasola (2024) noted workload as an independent and stable negative predictor of compliance across a number of Nigerian health care settings but found practitioners in higher volume facilities reported significantly worse documentation and consent requirements Achievement.

Finally, the moderation analysis in step three is the most novel contribution of this study and as all four interaction terms were statistically significant. This finding proves that it is empirical support that the relationship to professionalism has no direct nature of compliance, rather dependent on contextual conditions. Institutional support moderated this relationship between professional conduct and compliance positively (B = 0.038,  $p = 0.002$ ), such that the positive effect of professional conduct on compliance was stronger for practitioners who would report high levels of institutional support than are ones with low level of it. This implies that institutional support has an additive effect and not only does it enhance or amplify the effectiveness of professional practice actions. Likewise, the intensity of regulatory oversight also moderated this relationship significantly and positively (B = 0.022,  $p = 0.028$ ), which means that with intensification in regulatory (governing) enforcement, professional conduct could be more beneficial for complying companies. Resource availability was also a positive moderator (B = 0.029;  $p = 0.008$ ) providing further evidence that sufficient resources empower professional practitioners to put their knowledge and ethical commitments into compliant behaviour. In contrast, workload was a negative moderator (B = -0.019,  $p = 0.035$ ), which weakened the relationship between professional conduct and compliance under high workload conditions. Our moderation findings align with Ekwueme and Chukwu (2025) who reported higher effectiveness of individual professionalism in improving patient safety outcomes in Nigerian hospitals is due to the presence of high organizational support. In addition, Onwuchekwa and Eze (2024) identified regulatory oversight intensity as an essential contextual contingency factor, such that the positive association between ethical orientation and compliance increased significantly under conditions of observable regulatory monitoring. This also highlights a challenge in the South-South zone (Okon et al, 2026) as documentation for staffing shortages is pervasive and suggests that if compliance must be done at the expense of professional conduct by health service workers, then workload negatively moderating this relationship becomes more worrisome. High levels of workloads, even among the most professional practitioners mean that speed and volume may take precedence over legal requirements leading to a situation where they would effectively be negating the benefits of their professional status. This concurs with findings by Adepoju and Olaniyan (2025), who noted that high workloads in Nigerian primary health centers force even ethically sound practitioners to dispose of consent and documentation standards as routinely as it is done (Adepoju & Olaniyan, 2025). The full moderation model captured 49.8% of the variance in compliance (Nagelkerke  $R^2 = 0.498$ ) and represented a significant improvement over the professional conduct-only alternative, affirming that an engagement with systems perspective is

necessary for conceptualizing legal implementation in relation to healthcare. According to Umeh and Obi (2024), this level of explained variance is uncommon in health systems research, which highlights the need for accounting for interaction effects rather than just additive relationships.

The third set of key findings relates to the barriers to implementation; The findings demonstrate a distinct ranking of barriers based on severity, with institutional barriers rating highest (mean = 4.12), followed by regulatory barriers (mean = 3.87) and socio-cultural barriers (mean = 3.45). Insufficient funding for healthcare facilities was the most serious barrier overall (mean = 4.58), with 86.0% of respondents rating it as severe or very severe and 51.4% rating it as very severe. The third-ranked barriers were trained personnel (mean = 4.49, 82.7% severe or very severe) and insufficient infrastructure/equipment (mean = 4.41, 79.7% severe or very severe). This finding agrees with Obalum (2026) who reported that many health facilities in the south-South zone of Nigeria were operating below standard due to chronic underfunding and deficit of amenities. The current study measures the perceived severity of these deficits from the standpoint of frontline practitioners and thus further buttresses calls for greater investment in health care workforce and physical infrastructure. In a survey of 500 Nigerian healthcare practitioners, Adekunle and Oyedeji (2025) also identified funding constraints as the most frequently reported barrier to legal compliance, with 83% stating that lack of adequate resources has directly hindered their attempts to comply with statutory requirements.

Strong perception of regulatory barriers, especially weak inspection and monitoring system (mean = 4.35, 76.6% reporting as a severe or very severe address), delayed disciplinary actions for professional misconduct (mean = 4.28, adopting a extreme severity with great seriousness ) appeared among the perceived greatest hindrance in reference, These were another possible deterrent the mean and supplier data presented at show high incidence opinion regarding both operational non-fluous obstructions here. This is consistent with Ilochi (2025), who observed that regulatory authorities in Nigeria have shown little abilities to monitor and enforce preventive regulations proactively. Notably, the notion that discipline is always delayed evident in many civil service systems undermines deterrence. Only to the extent that practitioners believe that professional misconduct will not be punished (swiftly) are there incentives to avoid such conduct. As Nwosu and Igwe (2024) put it, "slow disciplinary mechanisms in the Nigerian healthcare regulatory environments have established impunity for practice violations as practitioners would report that the likelihood of being reprimanded is practically non-existent. Unclear and overlapping regulatory mandates (mean = 4.09, 66.8% severe or very severe) exacerbate the situation; practitioners and institutional managers may not understand which authority governs which facet of practice with some degree of confidence. The chronic fragmentation of regulatory authorities across numerous bodies with overlapping jurisdictions, as identified by Obi and Anyaogu (2025), is not only confusing but opens up avenues for accountability evasion.

Results: Socio-cultural barriers, although comparatively moderate in severity, always received lower scores than institutional and regulatory barriers. The socio-cultural barrier with the greatest severity was patients not being unaware of their legal rights (mean = 3.87, 56.3% severe or very severe), which mirrored previous discussion by Dafiel and Agada, (2026) where it was noted that the patient and family remained largely oblivious to their entitlements under the National Health Act. The next most important group of barriers were the fear of victimization for making a report (mean = 3.56, 47.4%), cultural norms against formal complaints (mean = 3.32, 39.5%), literacy levels among patients being too low (mean = 3.18, 35.5%) and language barriers (mean = 2.87, 27.8%). Compared to resource and regulatory limitations, socio-cultural barriers appear less obstructive to practice since their severity rating is modestly lower from the perspective of healthcare practitioners. These findings are complementary to those of Chinweuba and Okonkwo (Chinweuba & Okonkwo 2024), which indicated that although health-seeking behaviour is affected by socio-cultural factors, practitioners continuously place institutional and regulatory barriers as more salient constraints to complying with the law. In accordance with Adewale and Ogunyemi (2025), patient-related factors were found to explain only 12% of the variance in implementation outcomes, indicating that much of the true effect was likely due to system-level factors.

A consistent picture emerges when these three groups of findings are combined. Awareness of national health laws is necessary but not sufficient, accounting for just 18.3% of the variation in implementation. Professional conduct is a little more powerful, accounting for 20.8% of the variance in compliance. The complete moderation model (including institutional support, regulatory oversight, workload, and resource availability), on the other hand accounts for 49.8% of the variance. This implies that professional conduct is not intrinsically effective in fostering compliance, but that its effectiveness is enabled or constrained by contextual conditions. This points to a systems thinking perspective in healthcare quality research. Individual practitioner behaviour is context-specific because, as Okafor and Nnamdi (2025) noted, it exists within an interconnected web of incentives, constraints and supports; hence practical strategies that neglect this interconnectedness may be ineffective. This convergence of findings across objectives corroborates with the need for a systems approach, which was also concluded by Ogundipe and Adebayo (2024) in their comprehensive review of health law implementation in Nigeria.

These findings have several implications for policy and practice. It should be noted that raising awareness or professional ethics alone is unlikely to succeed in efforts to improve the implementation of national health laws in the South-South zone. Although these are all very important, without enabling institutional conditions, they will not prove sufficient. Second, addressing institutional barriers—especially insufficient capital, staff shortages and infrastructure deficits—must be a priority. Third, regulatory enforcement

mechanisms need to be reinforced for better effectiveness. Fourth, treat the workload management as a compliance topic and not just an operational issue. Fifth, while socio-cultural barriers are tolerant, they should not be decided out of hand. These implications fall within the multi-level intervention framework recommended by Ezuma-Ngwu and Enyindah (2024) encompassing individual, organizational and regulatory factors concurrently. Conclusion Overall, this study indicates that national health laws in patient care institutions in the South-South zone of Nigeria is dependent on various moderating relationships among awareness and professional conduct as well as contextual factors such that the professional conduct is effective only with enabling environments (institutional support for caring for patients), institutional regulatory oversight (national health law implementation) context that implicates availability and dedication of resources to workload management.

## Conclusion

The study examined the influence of professionalism on enactment of national health laws in patient care establishments in South-South zone, Nigeria. Awareness of national health laws is an important factor for implementation, with higher awareness leading to a greater likelihood of adequate implementation also knowledge of the health law was found significant. But awareness only accounted for 18.3% of the variance; that means awareness is necessary but not sufficient. The strongest predictor of compliance, accounting for 20.8% of the variance in compliance, was professional conduct which included clinical competence and ethical decision-making, accountability mechanisms and respect for patient rights. Significantly, context played a moderating role on the association between professional conduct and compliance. Positive moderation in the professional conduct-compliance relationship came from institutional support, regulatory oversight intensity, and resource availability while workload negatively moderated the professional conduct-compliance relationship under high workload conditions. A systems level view was highlighted in that the full moderation model explained 49.8% of variance in compliance. The barrier analysis demonstrated that the most severe barriers for implementation were institutional factors including funding, personnel shortages and infrastructure deficits as well as regulatory enforcement deficits. Less severe were the moderate socio-cultural barriers. Conclusion-Overall, the results underscore the importance of exploring practitioner behaviour/awareness in tandem with institutional resource constraints/regulatory enforcement weaknesses/workload-related factors in view of holistically improving legal implementation by the South-South zone In absence of this integrated measure the gap between statutory health laws and healthcare facilities in real-world application will remain as it is.

## Recommendations

### This study leads to the following recommendations:

1. Over 80% of South-South zone health ministries and institutional managements identified inadequate funding, personnel shortages, and infrastructure deficits among the most serious barriers to implementation.
2. Independent well-resourced monitoring units conducting frequent unannounced inspections, expedited disciplinary processes, and addressing high workloads through strategic workforce planning to reduce patient-to-practitioner ratios are needed from the Medical & Dental Council of Nigeria and state ministries of health.
3. Healthcare institutions have a duty to enforce compulsory once yearly learning and development activities that address the National Health Act and patients' rights; and internal systems of support that include; compliance officers, reporting anonymously or partaking in whistle-blowing without the fear of punishment, as well as messages targeted towards patients.

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