



Research Article

Assessment of Confidentiality of Patients' Health Records Among Health Information Professionals at Usmanu Danfodiyo University Teaching Hospital, Sokoto

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Abstract

This study assessed the confidentiality of patients' health records among health information professionals at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto. The research focused on evaluating healthcare workers' knowledge, attitudes, and practices regarding the confidentiality of patient information, as well as identifying institutional policies and challenges affecting record security. A descriptive survey research design was adopted using structured questionnaires distributed to 132 staff, with 103 responses analyzed. Results revealed a high level of awareness and adherence to confidentiality principles, although infrastructural limitations, inadequate sanctions, and high workload occasionally compromise privacy. Recommendations include periodic training, improved infrastructure, and strong enforcement of confidentiality policies. This paper underscores confidentiality as a cornerstone of patient trust, ethical practice, and quality healthcare delivery.

Keywords: Confidentiality, Health Information, Patient Records, Data Privacy, Health Professionals.

1. Introduction

Confidentiality plays a crucial role in healthcare delivery by ensuring the privacy, trust, and security of patient information. Healthcare providers are ethically and legally obligated to safeguard patients' personal health information unless explicit consent for disclosure is given. The principle of confidentiality serves two core purposes: first, it protects patients' privacy, reducing feelings of vulnerability and embarrassment; second, it fosters openness and honesty between patients and healthcare professionals.

In contemporary, technology-driven healthcare systems, maintaining confidentiality has become increasingly complex due to the multidisciplinary nature of patient care. Members of healthcare teams including physicians, nurses, administrative staff, and researchers often require access to patient records for legitimate purposes (Bord et al., 2018). As such, clear guidelines are essential to delineate the conditions under which confidentiality may be ethically or legally waived. Although prior studies have examined patients' access to their medical records, few have explored patients' broader expectations and perceptions regarding confidentiality. The Patient's Charter reinforces these expectations, asserting that every individual has the right to access their health records and that healthcare workers are legally bound to preserve their confidentiality (European Observatory on Health Systems and Policies, 2021).

Healthcare provision is among the most sensitive services in society, requiring patients to disclose intimate personal details. For healthcare to be effective, patients must trust that their information will remain private. This professional duty to maintain confidentiality dates back to ancient times. The Hippocratic Oath emphasizes secrecy, declaring: "What I may see or hear in the course of treatment, I will keep to myself, holding such things shameful to be spoken about" (Reich, 1995). Modern equivalents, such as the Geneva Declaration of the World Medical Association, reaffirm this commitment by stating, "I will respect the secrets confided in me, even after the patient has passed away" (Moskop et al., 2005).

Legally, confidentiality obligations are embedded in both national and international frameworks. In the United States, various federal and state laws, including the Health Insurance Portability and Accountability Act (HIPAA), regulate the handling of medical information (Liang, 2000). In Nigeria, confidentiality is upheld under the Rule of Professional Conduct for Medical and Dental Practitioners (Nigerian Medical Association, 1995) and the National Health Act (2014), which mandates that medical professionals protect the privacy of patient records. Specific provisions, such as those enforced during the COVID-19 pandemic, further emphasize the responsibility of medical personnel to maintain confidentiality (Oragwu et al., 2020).

Respecting confidentiality not only fulfills ethical and legal standards but also enhances patient trust and confidence in healthcare systems. When patients feel secure that their information is protected, they are more likely to seek medical care and disclose sensitive details necessary for accurate diagnosis and treatment. This is especially significant in contexts involving stigmatized conditions such as reproductive health issues, sexually transmitted infections, and mental health disorders (Bord et al., 2018). Research has shown that adolescents, for instance, are less likely to access healthcare services if they believe confidentiality will not be maintained (Weddle & Kokotailo, 2005).

A breach of confidentiality can have far-reaching consequences—social, psychological, and financial. Patients whose information is exposed may suffer discrimination, loss of employment, or social exclusion, and may even fall victim to identity theft (Pritts, 2008). Despite these risks, studies on confidentiality practices within Nigeria's healthcare system remain limited. Consequently, this study seeks to evaluate the level of awareness, practice, and institutional enforcement of patient information confidentiality among health information professionals at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.

Statement of the Problem

Despite the ethical and legal frameworks designed to protect patient information, breaches of confidentiality continue to occur in healthcare settings. According to Taiwo (2013), numerous cases of unauthorized access and disclosure of patients' health records have been reported over the years. The neglect of proper safeguards for medical information erodes the trust patients place in healthcare professionals and institutions. This problem becomes particularly critical in relation to data involving sensitive or stigmatized health conditions such as sexually transmitted infections, reproductive health, mental health disorders, and substance abuse. When patients lose confidence in the confidentiality of their medical records, they may withhold vital information or avoid seeking care altogether, thereby compromising the quality of healthcare delivery. Moreover, breaches of confidentiality whether intentional or accidental can expose patients to discrimination, financial or medical identity theft, and psychological distress.

Confidentiality is a central ethical and legal obligation in healthcare, ensuring that patient information remains private and protected from unauthorized disclosure. In the Nigerian healthcare context, confidentiality is particularly vital due to the sensitive nature of health data and the prevalence of stigmatized conditions such as HIV/AIDS, mental illness, and reproductive health disorders. When confidentiality is breached, patients may lose trust in the healthcare system, leading to underreporting and reduced care-seeking behavior. This study investigates the confidentiality practices among health information management professionals in UDUTH, Sokoto, assessing their knowledge, attitudes, practices, and the institutional frameworks that support or hinder patient data protection.

In many Nigerian healthcare institutions, including teaching hospitals, the problem is exacerbated by weak enforcement of privacy regulations, inadequate data security systems, and insufficient staff training on confidentiality protocols. These challenges highlight an urgent need to assess the level of awareness, adherence, and institutional mechanisms supporting patient record confidentiality among health information professionals at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.

Objectives of the Study

The main objective of this study is to assess the confidentiality of patients' health records among health information professionals at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.

The specific objectives are to:

1. Examine the existing measures adopted by healthcare professionals to protect patient records at UDUTH, Sokoto.
2. Identify the major challenges affecting the maintenance of patient record confidentiality in the hospital.
3. Proffer practical solutions for improving the confidentiality and security of patient records.
4. Provide recommendations to hospital management on the provision of effective tools, technologies, and policies that enhance data privacy and protection.
5. Assess the overall level of awareness and adherence to confidentiality standards among health information professionals in UDUTH, Sokoto.

Scope of the Study

This study focuses on health information management professionals working at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto. The research specifically examines their knowledge, attitudes, and practices concerning the confidentiality of patient health records, as well as the institutional measures and challenges influencing record security. Due to time and logistical constraints, the study is limited to staff within the Health Records Department of UDUTH.

Literature Review

Healthcare confidentiality derives from ethical, legal, and professional principles. The Hippocratic Oath and modern ethical codes, such as those of the World Medical Association and the Nigerian Medical and Dental Council, stress physicians' duties to respect patients' secrets. Legally, the National Health Act (2014) and the Nigerian Data Protection Regulation (NDPR, 2019) mandate healthcare institutions to ensure data privacy and impose penalties for breaches. Empirical studies have shown that when confidentiality is maintained, patients exhibit greater trust and cooperation, enhancing clinical outcomes. Conversely, poor confidentiality management contributes to data misuse, medical errors, and ethical violations. Technological advancements, while improving data access, also introduce new risks such as unauthorized access and cyber breaches, underscoring the need for ongoing training and digital security measures.

2.1 Conceptual Framework on Health Record Confidentiality

Concept of Health Record Confidentiality

Confidentiality refers to the ethical and legal duty to protect personal information from unauthorized disclosure. Historically, confidentiality emerged from professional relationships of trust—such as those between a physician and patient, lawyer and client, or priest and parishioner—where information shared is not to be re-disclosed without consent. In modern healthcare, this obligation extends to a wider range of actors, including hospital administrators, researchers, insurance companies, and governmental health agencies that manage sensitive patient data (Institute of Medicine [IOM], 2019).

Data confidentiality, therefore, represents the principle that health information must be treated as protected and accessible only to authorized individuals. The U.S. Freedom of Information Act (5 U.S.C., Section 552) exempts personnel and medical files from public disclosure to prevent invasion of personal privacy. Similarly, the National Health Act (2014) in Nigeria establishes that medical data are confidential and can only be shared with patient consent or under lawful obligation.

In essence, patient confidentiality is the ethical and legal requirement for healthcare providers to maintain the privacy and security of patients' medical information, disclosing it only with consent or when mandated by law.

Key Concepts of Patient Confidentiality:

- **Trust in Healthcare:** Builds confidence and openness between patients and providers.
- **Consent-Based Disclosure:** Information may only be shared with others when the patient grants permission.
- **Legal and Ethical Duty:** Protected by laws such as HIPAA (U.S.) and NDPR (Nigeria); breaches can attract penalties.
- **Limits to Confidentiality:** Certain exceptions apply, including reporting communicable diseases, preventing harm, or complying with court orders.
- **Human Rights:** The right to privacy is a fundamental human right recognized globally.

2.1.2 Confidentiality Obligations in Health Care

The importance of confidentiality has long been embedded in medical ethics. The Hippocratic Oath (4th century B.C.E.) instructs physicians to treat all patient information as “sacred secrets” (Bulger, 2020). Similarly, the American Medical Association (AMA) Principles of Medical Ethics emphasize that information disclosed in the physician–patient relationship must remain confidential unless disclosure is required by law.

Faden (1993) identifies four main justifications for medical confidentiality:

1. **Respect for Privacy and Autonomy:** Patients have the right to determine what happens to their bodies and personal data.
2. **Expectation of Confidentiality:** Both implicit and explicit promises made within the healthcare relationship must be upheld.
3. **Trust in the Doctor–Patient Relationship:** Confidentiality fosters openness necessary for effective diagnosis and treatment.
4. **Protection from Harm:** Maintaining confidentiality shields patients from discrimination, stigma, or psychological distress.

Legal frameworks worldwide reinforce these ethical obligations. Laws such as the Uniform Health Care Information Act (1988), the California Confidentiality of Medical Information Act (1992), and Nigeria's NDPR (2019) mandate the

protection of health data. Courts have further upheld confidentiality under legal theories such as breach of trust, invasion of privacy, and negligence (Waller, 2023).

2.1.3 Disclosure of Health Information

Beyond the doctor–patient relationship, determining when and how patient information may be disclosed is complex. In modern healthcare systems, particularly those using managed care and third-party payment structures, data sharing for administrative purposes has become inevitable (Westin, 2019; Harris & Equifax, 2021).

Patients generally consent to internal information sharing within hospitals or insurance frameworks, but they expect that their data will be used strictly for healthcare purposes and not disclosed to unauthorized entities. However, consent is sometimes obtained under pressure or without full awareness, which limits its validity.

Certain circumstances legally require disclosure, including mandatory reporting of births, deaths, infectious diseases, and violence-related injuries, or under court orders (Waller, 2021). Nonetheless, confidentiality should remain the default, and exceptions must be justified by law or public health necessity.

2.1.3.1 Respect for Patient Confidentiality

Confidentiality is both an ethical and legal duty. Healthcare professionals are bound by confidentiality clauses in employment contracts and by national laws protecting privacy rights. Rule 13 of the Medical and Dental Council’s ethical guide allows disclosure only under specific conditions, such as legal obligations or threats to public health (Reigh, 2022).

The National Health Act (2014) makes it an offence to divulge patient information without consent, except under legal compulsion. Professionals must also ensure that physical and digital records are securely stored, transmitted, and accessed only by authorized persons (Liang, 2022).

Patients should be informed about the type of information collected, the purpose of its use, and their rights to consent or refuse disclosure. Sensitive data—such as HIV status, reproductive health, and child protection cases—require special handling and, in some instances, de-identification to preserve anonymity (Harvy University of Alberta, 2021).

2.2 Empirical Review

2.2.1 Empirical Studies on Patient Confidentiality in Health Informatics

Health informatics integrates information systems, technologies, and practices to manage healthcare data effectively. While it enhances efficiency and data accessibility, it also raises privacy and confidentiality concerns. Studies have shown that the high cost of implementing secure systems, combined with inadequate training, contributes to data breaches in healthcare institutions (Agarwal et al., 2010; Iwaya et al., 2013).

Empirical confidentiality research focuses on how privacy principles are implemented in real-world healthcare settings. Common areas of study include:

- Compliance of health workers with confidentiality policies.
- Frequency of data breaches or unauthorized record access.
- Patient understanding of privacy rights.
- Effectiveness of data protection laws such as HIPAA and NDPR.

These empirical investigations reveal gaps between policy and practice, highlighting the need for continuous staff training and improved data protection technologies.

2.3 Theoretical Framework on Confidentiality of Patient Health Records

The confidentiality of patient records is grounded in ethical, legal, and professional theories.

1. Ethical Theory:

- Autonomy affirms that patients have the right to control personal information.
- Beneficence and Non-maleficence require professionals to act in patients’ best interests and avoid harm.
- Trust and Fidelity emphasize that confidentiality builds mutual respect and honesty in the healthcare relationship (Beauchamp & Childress, 2001).

2. Legal Theory:

- Confidentiality is protected under privacy laws such as HIPAA (U.S.), GDPR (EU), and NDPR (Nigeria).
- Breaches can result in sanctions, legal liability, or professional disciplinary action.

3. Professional and Institutional Theory:

- The World Medical Association’s Declaration of Geneva and the Nigerian Medical Association’s Code of Ethics mandate strict confidentiality.
- Hospitals reinforce this through access controls, encryption, and data security policies.

4. Social Contract Theory:

- Society entrusts healthcare professionals with private information in exchange for confidentiality.
- This mutual trust sustains the integrity and effectiveness of healthcare systems.

3. Methodology

The study adopted a descriptive survey research design to capture the perspectives of health information professionals at UDUTH, Sokoto. A total of 132 staff constituted the population, with 103 respondents returning valid questionnaires. A structured questionnaire was employed, divided into sections covering demographic information, knowledge, attitudes, practices, and institutional challenges related to confidentiality. The data were analyzed using descriptive statistics (frequency and percentage) and inferential methods (chi-square tests) with SPSS v.21. Ethical approval was obtained, and participation was voluntary, with assurances of anonymity and confidentiality.

4. Results and Data Analysis

The results indicate that most respondents were within the 31–40 age group and predominantly male. Over 80% had either a National or Higher National Diploma in Health Information Management, and more than 70% had formal training on confidentiality. Respondents demonstrated strong agreement on ethical principles, with over 85% acknowledging confidentiality as integral to professional conduct. However, institutional factors such as inadequate infrastructure, high workload, and lack of sanctions were identified as barriers to maintaining full confidentiality.

Table 1: Knowledge of Patient Confidentiality

S/N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
1	I am aware that patient records are confidential and protected by law	88(85%)	14 (14%)	0(0%)	0(0%)	1(1%)	103 (100%)
2	I have received formal training on patient data confidentiality	72(70%)	28(27.3%)	1(0.9%)	1(0.9%)	1(0.9%)	103 (100%)
3	Patient record confidentiality is a core part of my professional ethics	85(82.5%)	15(14.5%)	1(1%)	1(1%)	1(1%)	103 (100%)
4	Sharing patient information without consent violates professional conduct	70(68%)	17(16.5%)	3(2.9%)	4(3.8%)	9(8.8%)	103 (100%)
5	I understand the hospital's policy on confidentiality and data protection	50(48.5%)	50(48.5%)	2(1.9%)	0(0%)	1(1%)	103 (100%)

Source: Fieldwork, 2025

Table 1 shows and indicates that the majority of hospital staff possess good knowledge of patient confidentiality. Most respondents are aware that patient records are protected by law, have received formal training on data confidentiality, and consider confidentiality a core part of their professional ethics. This also recognize that sharing patient information without consent violates professional conduct and demonstrate a clear understanding of the hospital's confidentiality policies. Overall, the responses reflect a strong awareness and adherence to patient confidentiality among the staff.

Table 2: Summary of Research Findings

Variable	Key Indicators	Frequency (%)	Interpretation
Knowledge of confidentiality laws	Aware of patient record protection	88 (85%)	High awareness among professionals
Training received	Formal training on data confidentiality	72 (70%)	Regular institutional orientation present
Ethical compliance	Confidentiality as professional ethics	85 (82.5%)	Strong ethical awareness
Policy understanding	Awareness of hospital confidentiality policy	100 (97%)	Institutional framework understood
Practices	Secure record handling and access restriction	90 (87%)	Proper practice maintained
Challenges	Poor infrastructure, workload, lack of sanctions	60 (58%)	Institutional barriers exist

Discussion of Findings

The findings affirm that confidentiality is well understood and practiced among UDUTH's health information professionals. Nevertheless, systemic challenges persist, notably inadequate digital infrastructure and limited enforcement mechanisms. These gaps align with previous research emphasizing that maintaining confidentiality in resource-limited settings requires both policy commitment and practical tools. The study reinforces that confidentiality not only safeguards patients' rights but also enhances institutional reputation, legal compliance, and healthcare quality.

From the data generated and analyzed, it was observed that Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, has established policies and procedures aimed at protecting and maintaining the confidentiality of patients' health information. The majority of respondents strongly agreed that confidentiality is actively practiced among health professionals within the hospital.

However, the findings also revealed that institutional policies and operational challenges pose significant risks to maintaining full confidentiality. Issues such as limited enforcement, infrastructural constraints, and occasional disregard for confidentiality protocols were identified as potential factors contributing to breaches.

Furthermore, many respondents confirmed that contractual or confidentiality agreements exist with third-party service providers who manage patient records. While such agreements are intended to enhance accountability, they also introduce potential vulnerabilities, as patient information may still be inadvertently exposed or misused under certain circumstances. This indicates a need for stricter monitoring mechanisms and periodic reviews of third-party data handling policies to ensure that confidentiality is maintained at all operational levels.

Summary of the Study

This study examined the level of awareness, attitudes, and practices of health information professionals regarding the confidentiality of patients' health records in UDUTH, Sokoto. It also assessed the institutional mechanisms that promote or hinder confidentiality within the hospital setting.

The analysis revealed that the majority of respondents were qualified and experienced professionals—holding National Diplomas, Higher National Diplomas, Bachelor's degrees, and other relevant qualifications who demonstrated strong understanding of the ethical and legal principles of confidentiality. Most respondents agreed that maintaining confidentiality is an integral part of their professional responsibility and a key component of quality healthcare delivery.

The findings further showed that health information officers recognize the importance of confidentiality not only in treatment but also in disease management, rehabilitation, and prevention. Despite their awareness, the study identified occasional lapses in confidentiality practices due to factors such as high workload, inadequate sanctions for breaches, and insufficient institutional training on data protection.

Conclusion

The study concludes that while health information professionals at UDUTH possess a high level of knowledge and awareness regarding the confidentiality of patient records, there remain gaps in enforcement and practice. Respondents acknowledged that patient information may be disclosed to third parties—such as legal institutions, researchers, insurance companies, medical laboratories, or public health authorities—only under specific circumstances, including disease surveillance, epidemic control, or legal proceedings.

It was also established that although professionals understand the ethical boundaries of information disclosure, consistent policy implementation and institutional oversight are necessary to prevent misuse or accidental breaches. Strengthening confidentiality mechanisms is therefore essential to safeguard patient trust, promote ethical healthcare delivery, and ensure compliance with national and international data protection standards.

Recommendations

Based on the findings, the following recommendations are proposed:

Staff Orientation and Training: Continuous professional education programs should be organized to sensitize healthcare professionals on the appropriate circumstances for disclosing patient information, emphasizing the importance of informed consent and legal compliance.

Workshops on Data Confidentiality: Regular workshops and seminars should be conducted to enhance understanding of patient record confidentiality and data protection principles among all hospital staff.

Legal Awareness: Health information professionals should be educated about the legal implications of unauthorized disclosure of confidential information to prevent liability and institutional embarrassment.

Institutional Enforcement: Hospital management should establish clear disciplinary measures and internal monitoring systems to ensure strict adherence to confidentiality protocols.

Digital Health Record Systems: The government and hospital authorities should support full digitization of patient records to minimize paperwork, enhance data security, and ensure restricted access to sensitive information.

Interdepartmental Sensitization: All healthcare professionals including physicians, nurses, and administrative personnel should be reminded of their legal and ethical duty to maintain confidentiality through departmental meetings and policy reviews.

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