"An Assessment of Adherence to Patient Privacy and Confidentiality Standard Operating Procedures in Comprehensive Care Clinics: A Case of Nakuru County Level 5 Hospital, Kenya."

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ABSTRACT

Background: Patient privacy and confidentiality are fundamental pillars of healthcare, particularly in the management of HIV/AIDS where social stigma remains a significant barrier to clinical adherence. Despite the constitutional protections afforded by the Kenya Constitution (2010) and the Data Protection Act (2019), significant gaps persist between legal mandates and clinical practice in high-volume referral facilities. This study assessed the level of adherence to privacy and confidentiality Standard Operating Procedures (SOPs) at the Comprehensive Care Clinic (CCC) of Nakuru County Level 5 Hospital, Kenya.

Methodology: The study adopted a descriptive case study design employing a triangulated approach for data collection. A sample size of 79 respondents (65 clients and 14 staff) was determined using Fischer's formula for finite populations. Data were collected via structured questionnaires, an observation checklist, and an interview guide to evaluate policy adherence, infrastructural adequacy, and socio-psychological experiences. Statistical analysis was performed using SPSS version 25, with findings presented in thematic tables and narrative form.

Results: The study achieved an 82.28% response rate. Findings revealed high institutional awareness of privacy policies (91.7%), yet significant procedural gaps were identified, including non-secure data disposal methods (41.7% hand-tearing) and reliance on informal on-the-job training (58.3%). Infrastructural assessment showed that while the standalone clinic design and semi-permanent partitions provided adequate acoustic insulation, digital vulnerabilities existed due to staff failure to log off workstations. Socially, 70.8% of clients rated privacy as "excellent," correlating physical barriers (solid walls) with psychological safety. However, a profound knowledge deficit was noted, with 86.2% of clients unaware of their legal rights to privacy.

Conclusion: While Nakuru County Level 5 Hospital has established a foundational framework for privacy, adherence is undermined by infrastructural limitations and technical laxity. The high level of client satisfaction exists alongside low rights literacy, suggesting that patients may not recognize subtle breaches.

Recommendations: The study recommends mandatory annual formal training for staff on data protection laws, upgrading semi-permanent partitions to permanent soundproof masonry, and implementing automated system "timeouts" on clinical computers. Furthermore, a targeted patient-rights advocacy campaign is essential to bridge the existing gap in health-rights literacy.

Keywords: Confidentiality, Privacy, HIV/AIDS, Standard Operating Procedures, Comprehensive Care Clinic, Nakuru County.

BACKGROUND INFORMATION

Globally, healthcare delivery is anchored on the protection of patient rights, specifically the dual pillars of

privacy and confidentiality **[1]**. Privacy is defined as an individual's right to be left alone and to make autonomous decisions, while confidentiality involves the protection of privileged communication shared within a professional relationship **[2]**. In the context of HIV/AIDS, these principles are critical clinical safeguards **[3]**. The World Health Organization **[1]** reports that as antiretroviral therapy (ART) expanded to reach 6.65 million people by 2010, the intersection of sensitive personal data and public health systems grew exponentially. This is particularly acute in Sub-Saharan Africa, a region that accounted for 67% of global HIV infections in 2008 **[2]**. In Kenya, research by Colombini et al. **[3]** highlights that anticipated stigma often forces patients—particularly women—to hide their status, creating a "secrecy of adherence" that depends entirely on the facility's ability to guarantee a secure and private environment.

To maintain this trust, healthcare facilities must rely on robust policy measures that translate high-level law into clinical practice **[4]**. Legislatively, the Constitution of Kenya **[4]** introduced an emboldened Bill of Rights; however, Muchiri **[5]** notes that while privacy is a constitutional supremacy, core legislations often remain silent on the specific procedural "contours" required in crowded hospital settings. This gap is most evident in Comprehensive Care Clinics (CCC), where maintaining confidentiality requires strict adherence to Standard Operating Procedures (SOPs) **[6]**. The core of the problem at Nakuru County Level 5 Hospital involves significant procedural and infrastructural barriers that compromise these mandates. Many consultation rooms lack adequate soundproofing, allowing sensitive discussions to be overheard, while the physical location of the clinic often fails to shield clients from unintended public disclosure.

Statement of the Problem

When these infrastructural measures fail, patients face profound socio-psychological trauma, experiencing anxiety that frequently leads to treatment default **[11]**. These systemic failures have precipitated a cascade of negative public health outcomes, including poor health-seeking behaviour, non-adherence to treatment, and missed appointments **[17]**. To avoid being "outed," many patients incur an unnecessary financial burden by travelling to distant counties for care, while others resort to sending relatives for medication—a practice that prevents essential face-to-face clinical monitoring. Without an empirical assessment of adherence to privacy SOPs, Nakuru County Level 5 Hospital cannot address these rising default rates or implement corrective policies to restore patient trust **[21]**.

LITERATURE REVIEW

Policy Measures and Regulatory Adherence

The structural foundation of privacy is governed by the Data Protection Act (2019), which establishes a legally binding framework for processing sensitive health data **[7]**. Recent regulatory shifts in 2025 have intensified this environment; the Kenya Medical Practitioners and Dentists Council (KMPDC) now mandates that all healthcare facilities obtain a Certificate of Data Handler/Processor from the Office of the Data Protection Commissioner (ODPC) to qualify for operational licensing **[8]**. Despite these mechanisms, research in Nairobi public hospitals indicates that implementing information security metrics remains a challenge due to organizational resistance **[9]**. Furthermore, as CCCs adopt Electronic Medical Records (EMRs), vulnerabilities such as inconsistent password management and the growth of the Internet of Medical Things (IoMT) create new entry points for unauthorized access **[10]**.

Infrastructural Measures and the Physical Environment

Modern clinical infrastructure is a critical determinant of successful privacy implementation. Studies highlight that inadequate physical barriers are a leading factor in patient disengagement **[12]**. Research consistently demonstrates that patients in rooms with solid walls perceive significantly higher privacy and psychological safety compared to those in curtained or open-plan areas **[13]**. However, structural barriers often conflict with service efficiency **[14]**. Layout designs can occasionally intimidate patients, leading to attrition **[14]**. Additionally, research indicates that facilities receiving donor funding are significantly more likely to possess improved IT and physical infrastructure necessary for high-level data protection, highlighting a resource disparity that affects non-funded public facilities **[15, 16]**.

Socio-Psychological Trauma and Client Response

Confidentiality breaches remain a primary driver of psychological distress and treatment default. The HIV and AIDS Prevention and Control Act (2006) recognizes these risks, providing specific legal safeguards and penalties for unauthorized disclosure **[17]**. Recent literature highlights a persistent "knowledge asymmetry"; while many patients are satisfied with their care, they often possess minimal literacy regarding their legal rights under the Kenya National Patients' Rights Charter **[18]**. Consequently, client satisfaction may stem from a lack of awareness of what constitutes a breach. The proposed Quality Healthcare and Patient Safety Bill (2025) seeks to address this by mandating public awareness campaigns and establishing a Healthcare Tribunal **[19]**. Conversely, when patients trust their status is protected, they report higher willingness to participate in care **[20]**.

METHODOLOGY SUMMARY

Study Design

The research employed a case study design to facilitate an in-depth exploration of the subject. This methodology proved efficient and cost-effective while ensuring no loss to follow-up. Furthermore, the design supported hypothesis generation and allowed for the clear determination of associations between variables.

Study Area

The study was conducted at Nakuru County Level 5 Hospital in Kenya. Established in 1906 and gazetted as a public facility in 1956, it was elevated to a national referral hospital (Level 6) in 2019. The facility serves a diverse population primarily involved in agriculture and commerce, providing comprehensive inpatient and outpatient services, including specialized HIV care.

Study Population

The target population comprised staff and clients within the Comprehensive Care Clinic (CCC). The accessible population included adult males and females over the age of 18 present at the facility during the study period.

Inclusion Criteria

The study included CCC staff members and clients over the age of 18 at the Nakuru County Level 5 Hospital.

Exclusion Criteria

The research excluded clients under 18, trainees, and staff from other departments within the hospital facility.

Study Variables

The dependent variable was the status of privacy and confidentiality during service delivery. Independent variables included the types of services offered and the infrastructural status of the CCC department.

Sampling Technique

The researcher utilized a convenience sampling technique for clients and a census approach for staff. These methods were selected for their cost-effectiveness and time efficiency. The population was regarded as homogenous regarding the seeking and delivery of services.

Sample Size Determination

The sample size was determined using the Fischer et al. formula. At a 95% confidence level, the initial calculation yielded 384 respondents. This figure was adjusted for a target population of fewer than 10,000, resulting in a final sample size of 79 respondents.

Data Collection Methods and Tools

Data triangulation was achieved through questionnaires, interview guides, and observation checklists. These tools facilitated direct interaction with respondents, ensuring the extraction of detailed information and allowing participants to express their views.

Data Collection Process

Following approval from **NACOSTI**, data collection was initiated. Information was gathered from consenting respondents using the structured instruments mentioned above.

Pre-Test

All data collection tools underwent a pre-test prior to the main study. Necessary adjustments were implemented based on the feedback received during this phase.

Validity

To ensure validity, the instruments were aligned with the specific study objectives. A research supervisor reviewed the interview guides and checklists to ensure they provided sufficient detail.

Reliability

The reliability of the interview guide was established through consultations with research experts and supervisors. This collaborative approach ensured the consistency of the data collection instruments.

Data Analysis

Collected data were cleaned, edited, and analyzed using SPSS version 25. Each variable was analyzed according to a specific codebook. The findings are presented in tabular format to inform the study's conclusions and recommendations.

Ethical Considerations

Formal authority was obtained from NACOSTI, the KMTC director, and the hospital administration. Informed consent was secured from all respondents. Confidentiality was guaranteed by anonymizing participant identities, and all external sources were appropriately credited to avoid plagiarism.

Data Analysis, Presentation, And Interpretation

Socio-Demographic Profile of Respondents

The study recruited 65 participants, achieving an 82.28% response rate. The demographic distribution indicates a mature cohort, with a mean age of 45 years (SD = 15.7; Range: 21–83).

Gender and Marital Status: The sample was slightly majority female (53%) and characterized by a balanced distribution between single (38.4%) and married (38.4%) individuals. Education and Socio-economics: Educational attainment was primarily concentrated at the secondary (42%) and primary (40%) levels. Economic profiles showed significant vulnerability, with 38.5% unemployment and a majority residing in the peri-urban "outcasts" of Nakuru City (46%). Religious Affiliation: The cohort was predominantly Christian (94%).

Evaluation of Policy Measures for Privacy and Confidentiality

This section assessed institutional adherence to privacy protocols. Findings suggest a framework that is present but lacks standardized rigor.

Table 1: Adherence to Privacy and Confidentiality Policy Measures

Variable Category	Indicator	Frequency(n)	Percentage
Institutional Framework	Existence of written privacy policy	11	91.7%
Legal Compliance	Mandatory confidentiality agreements (New staff)	9	75.0%
Professional Training	Preference for annual training updates	10	83.3%
Information Handling	Printing conducted within CCC confines	11	91.7%
Data Disposal	Use of hand-tearing (non-secure)	5	41.7%
System Awareness	Clarity on third-party disclosure protocols	8	66.7%

Key observations regarding staff practices reveal several procedural gaps; while 91.7% of staff acknowledge a written policy, 100% advocate for annual reviews, indicating a perceived need for more dynamic protocols. Furthermore, significant training disparities exist, as a majority of staff (58.3%) rely on informal on-the-job training, highlighting a lack of structured, formal pedagogical approaches to data protection. These issues extend to data vulnerabilities, where secure disposal via shredding is critically low at 16.7%. Instead, most staff resort to hand-tearing (41.7%), which presents a significant risk for accidental data reconstruction and subsequent breaches.

Infrastructural and Environmental Determinants

Direct observation via checklist highlighted several physical strengths and weaknesses within the clinical environment. In terms of spatial autonomy, the CCC functions as a standalone unit that effectively isolates HIV service delivery from general hospital traffic, providing a structural barrier against unintended status disclosure. Regarding acoustic and visual safeguards, consultation rooms utilize soundproof semi-permanent partitions; however, the practice of using patient names alongside clinic numbers for public identification remains a persistent privacy risk. Finally, while digital integrity is bolstered by password-restricted EMRs, a critical behavioral vulnerability was identified: staff frequently fail to log off workstations when absent, creating a clear opportunity for unauthorized data access.

Socio-Psychological Trauma and Client Perceptions

The study explored the intersection between clinical environment and patient psychological safety.

Table 2: Client Perceptions of Privacy and Potential Psychological Impact

Variable Category	Indicator	Frequency (n)	Percentage (%)
Service Perception	Rated privacy achievement as "Excellent"	46	70.8%
Infrastructural Preference	Preference for solid walls (vs. curtains)	56	86.2%
Psychological Distortion	Third-party presence (students) caused discomfort	18	27.7%
Knowledge Deficit	Unaware of legal consequences of breaches	53	81.5%

The data reveals several key observations regarding client perceptions of privacy and safety. A high sense of perceived safety is evident, as 98.5% of clients reported no personal experience with confidentiality breaches, leading to a 70.8% "Excellent" rating. This sense of security is deeply tied to architectural determinism, with

86.2% of respondents identifying solid walls as the essential requirement for privacy, reinforcing the theory that physical barriers are synonymous with psychological safety. However, a significant knowledge asymmetry exists; 67.7% of clients lack awareness regarding patient rights and Standard Operating Procedures (SOPs). This suggests that high satisfaction levels may stem from a lack of awareness of what constitutes a breach rather than actual adherence to rigorous professional standards

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Discussion Of Findings

The following discussion integrates the empirical data from Nakuru County Level 5 Hospital with the established literature and legal frameworks, using a continuous numeric citation format.

Bio-data

Study findings indicated that females (53%) were more represented than males, agreeing with **[2]** regarding higher HIV prevalence among young women in sub-Saharan Africa. The demographic distribution indicates a mature cohort (mean age 45), yet findings regarding youth sensitivity to privacy align with **[16]**, though results regarding marital status—showing a balanced distribution between single and married individuals (38.4%)—contradicted the same study. The 66.6% staff clarity on research data access is in line with **[17]** regarding the importance of public confidence in data storage and disclosure protocols.

Policy Measures

Findings suggest a framework that is present but lacks standardized rigor. The 83.3% staff demand for annual training updates aligns with **[21]**. The existence of written policies (91.7%) concurs with **[9]** on the necessity of integrated security policies. However, procedural gaps remain; for instance, the finding that patients have limited access to their own medical information is supported by **[20]**. Furthermore, the reliance on hand-tearing for data disposal (41.7%) highlights a failure to meet the procedural "contours" required for clinical safety **[5]** and the **[8]** standards for certified data handling.

Infrastructural Measures

The standalone design of the CCC was found to enhance treatment adherence by providing spatial autonomy, contrasting with **[3]** who discussed the "secrecy of adherence" through integrated services. However, internal vulnerabilities persist; staff failure to log off computers reflects the "time-saving" perceptions noted in **[12]**, while the limitations of password security and digital access mirror the findings of **[22]**. These infrastructural gaps, such as the lack of soundproofing in consultation rooms, compromise the perceived psychological safety that solid walls provide compared to open-plan areas **[13]**.

Socio-Psychological Trauma and Client Response

The economic vulnerability of the cohort (38.5% unemployment) intensifies the trauma of potential breaches. As recognized by the **[17]**, unauthorized disclosure leads to treatment default. When patients perceive physical or procedural failures—such as overhearing sensitive discussions—they experience anxiety that leads to missed appointments or the financial burden of traveling to distant counties to avoid being "outed" **[3]**. The proposed **[19]** is essential to empower patients who currently possess minimal literacy regarding their rights under the **[18]**.

Conclusions

Based on the empirical findings of this study, the following scientific conclusions are drawn:

1. **Policy Adherence and Professional Awareness:** There is a high level of institutional awareness regarding privacy and confidentiality protocols. The existence of, and staff familiarity with, a written policy document has served as a foundational framework for maintaining professional standards within

the Comprehensive Care Clinic (CCC). However, the reliance on informal, on-the-job training suggests a need for more structured regulatory updates.

2. **Infrastructural and Technical Efficacy:** The facility's physical measures to safeguard confidentiality are moderately effective. While the standalone architectural design and semi-permanent partitions provide sufficient acoustic and visual insulation, significant technical vulnerabilities persist. Specifically, the frequent failure of staff to log off workstations and the inherent limitations of password-only authentication represent critical gaps in digital data security.

3. **Client Perception versus Rights Literacy:** Service users express a high degree of satisfaction with the clinic's privacy measures, correlating physical barriers (solid walls) with psychological safety. Nevertheless, a profound "knowledge-asymmetry" exists; while clients perceive the service as "excellent," they demonstrate minimal literacy regarding their legal human rights and the specific Standard Operating Procedures (SOPs) governing their care.

Recommendations

To enhance the adherence to privacy and confidentiality standards at Nakuru County Level 5 Hospital, the following interventions are recommended:

1. **Continuous Professional Development:** The CCC Departmental Head should implement mandatory, structured annual training for all clinical and ancillary staff. This should include regular, participatory reviews of the privacy policy document to ensure it remains aligned with evolving national data protection laws.

2. **Infrastructure and System Hardening:** The hospital administration should prioritize the transition from semi-permanent partitions to permanent, soundproof masonry to optimize auditory privacy. Furthermore, technical protocols should be updated to include automated "timeout" logs on all clinical computers and the exploration of biometric or multi-factor authentication to prevent unauthorized data access.

3. **Patient Empowerment and Advocacy:** The facility should launch a targeted "Patient Rights Awareness" campaign. This can be achieved through the distribution of multilingual pamphlets, brochures, and posters in the waiting bay, supplemented by brief health-talk sessions (health education) to bridge the gap in rights literacy.

Suggestions For Further Research

To build upon the findings of this assessment, the following areas are suggested for future investigation:

- **A Quantitative Analysis of Rights Literacy:** A specialized study into the determinants of low health-rights awareness among HIV-positive clients in regional referral hospitals.

- **Technological Vulnerability Assessments:** An inquiry into the security challenges of transitioning from paper-based to Electronic Medical Records (EMR) within resource-limited Comprehensive Care Clinics.

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