Annals of Healthcare Systems Engineering



Ann. Healthc. Syst. Eng. Vol. 1, No. 1 (2024) 6-18.

Paper Type: Original Article

Constraints and Limitations of Proper Management of Health Records: A Case Study of General Hospital Etinan

Blessing Imoh Ime*, Ayodele Philip¹, Mfonobong Enyong¹

¹ Department of Health Information Management, School of Health Information Management, University of Uyo Teaching Hospital; blizzyrich@gmail.com, ayodelephilipa@gmail.com, enyongmfonobong@gmail.com.

Citation:

Received: 9 May 2024	Ime, B. I., Philip, A., & Enyong, M. (2024). Constraints and limitations of
Revised: 15 June 2024	proper management of health records: a case study of general hospital
Accepted: 13 July 2024	etinan. Annals of healthcare systems engineering, 1 (1), 6-18.

Abstract

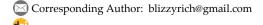
Proper management of health records is essential for ensuring quality patient care, efficient healthcare delivery, and compliance with regulatory requirements. However, many healthcare facilities, including Etinan General Hospital, face constraints and limitations in effectively managing health records. This study explored the challenges and barriers to proper management of health records in Etinan General Hospital, whose staff strength is about 220. A physical survey of about 100 participating staff was also conducted using a questionnaire to gather information and analysed using simple percentages and chi-square statistical techniques. The findings from this study indicated several constraints and limitations in the proper management of health records in Etinan General Hospital. These included inadequate infrastructure and resources, lack of trained staff, poor record-keeping practices, and limited access to technology. Inadequate infrastructure, such as outdated record-keeping systems and limited storage space, hinders the efficient management of health records. The lack of trained staff in Health Information Management (HIM) leads to errors in record-keeping and data entry, compromising the quality and accuracy of health records. Poor record-keeping practices, such as incomplete or illegible documentation, further exacerbate the challenges in managing health records. Additionally, limited access to technology, such as electronic health record systems, restricts the hospital's ability to digitise and streamline health record management processes. Various factors, including inadequate infrastructure, lack of trained staff, poor record-keeping practices, and limited access to technology, constrain the proper management of health records in Etinan General Hospital. Addressing these constraints and limitations is crucial for improving the quality of patient care, enhancing healthcare delivery, and ensuring compliance with regulatory requirements. Further research is needed to explore potential solutions and interventions to overcome these challenges and enhance Etinan General Hospital's health records management.

Keywords: Health records, Constraints and limitations, Proper management, Patient care, Inadequate infrastructure, Electronic health record.

1 | Introduction

Health records management practices are essential to ensure quality service delivery in all healthcare institutions. Health information is a key tool that hospitals need to achieve their mission and vision.

Health Information Management (HIM) aims to ensure the quality, accuracy, accessibility, authenticity and security of information in both paper and electronic systems [1]. In addition to the knowledge of doctors and nurses, an effective medical service does not depend only on the accounting processes of the hospital. There are different types of health data, depending on the size and activity of the hospital. Documents handled in





Licensee System Analytics. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0).

hospitals include patient notes, x-rays, pathological specimens and preparations, patient catalogues and records, pharmacy and drug surveys, and treatment and departmental information [2]. HIM software is used in many ways worldwide, although the differences depend on the needs and scope of services of a particular hospital or healthcare facility. Luthuli [3] states that intercompany records are electronic case files that are patient and/or treatment-oriented. This means that health records managers have consciously switched to electronic management of patient records. Records management is the systematic and consistent control of all records stored during their life cycle [4]. Where systematic records should be managed in a planned and methodical way. Records management should be consistent, whether electronic or paper. Bakare et al. [5] stated that records management is vital, regardless of whether resources are adequate or scarce. Regulatory organisations must control how records are created, received, organised, recorded, kept and retrieved, destroyed or permanently kept. All records include all documents, active and inactive, formal and informal, regardless of the medium in which they are held. This is the systematic and consistent control of all records throughout their lifecycle [6]. Good medical care requires good accounting. Without accurate, comprehensive, up-to-date and easily accessible patient records, medical professionals may be unable to provide the best care or may misdiagnose a disease with potentially serious consequences. Good HIM records also ensure the smooth functioning of hospital administration; unnecessary documents are transferred or destroyed regularly; storage areas are kept free and accessible; and key records are quick, saving time and resources [7]. Records also provide evidence of a hospital's accountability for its actions and are an essential source of information for medical research, statistical reports, and health information systems. Health Records are essential documents in patient care. They describe each patient's history, clinical findings, diagnostic test results, preoperative and postoperative care, progress and medical history, and treatment at a single health facility [8]. Medical information consists of various notes written by health professionals over time about observations and medications and treatments, test results, x-rays, reports, mediations and medical allergies, vaccination records, surgical history, etc. [9].

Maintaining accurate medical information Registration is an important tool in providing quality treatment. As such, preserving medical information is a core practice in the clinical setting. The purpose of retention is to ensure that important information is kept for a certain period. Regardless of the form of medical information (i.e., electronic or paper), good recording enables continuity of care and improves communication between different health professionals [10]. Documentation of medical information is the responsibility of all multidisciplinary team members involved in patient care, i.e., Doctors, surgeons, nurses, pharmacists, physical therapists, occupational therapists, psychologists, etc. In Africa, record management is a practised phenomenon, even though the standards of the practice are not as expected. HIM, also known as Health Records Management, is the scientific practice of acquiring, analysing, protecting and preserving both digital and traditional health information/Health Records, which are vital to providing quality and timely health care services [11], [12]. Health records also form the first link in the information chain, producing depersonalised, aggregated, and coded data for statistical purposes. A considerable effort is invested in writing, filing, sorting, searching, retrieving, issuing and recovering the Health Record, in whole or in part. There is no doubt that the ready availability of well-organised, legible, accurate and comprehensive clinical notes can play a very significant role in the clinical decision-making process and assist in the provision of quality healthcare [13], [14]. A health record enables health professionals to review previous care events, reach timely and appropriate clinical decisions, and develop treatment plans that minimise the risks and maximise the potential benefits to the patient [15], [16]. This study centres on the constraints and limitations of proper management of health records in General Hospital Etinan

2 | Research Methodology

2.1 | Study Area

The study sought to investigate the constraints and limitations of proper health record management at the general hospital Etinan, Etinan Local Government Area of Akwa Ibom State. The General Hospital Etinan,

situated along Etinan Eket, road was established in 1941 by the Akwa Ibom State Government. It is bounded by Ikot Ebiyak in the North, Chief Dr Greek's River in the East, West by Chief Itat's compound and the South by Eket Etinan road, all in Akwa Ibom State. It also shares common boundaries with Onna, Nsit Ibom, Mkpat Enin and Uyo, which are different Local Government Areas in Akwa Ibom State, Nigeria.

2.2 | Population of the Study

This study's target population was 220 employees on permanent, contract and temporary terms at the Etinan General Hospital, Etinan, Akwa Ibom State. A high percentage of the organisation's population would need to be familiar with the paper and electronic method of records as they were users. The study target was 120 personnel, representing 55 % of the population.

2.3 | Research Design

This comprises data collection that will provide an account or description of individuals, groups or situations. Instruments used to obtain data in descriptive studies include questionnaires, interviews (closed questions), and observation (checklists, etc.). Survey research includes gathering quantitative and/or qualitative data from participants, typically using a questionnaire or interview. The survey was designed to gather information on the current practices and challenges of managing health records in General Hospital Etinan. The questionnaire was divided into sections to cover various aspects of health record management, including record-keeping practices, access to health records, data security, and staff training. The questions were designed to elicit detailed responses from participants to provide a comprehensive understanding of the constraints and limitations faced by the hospital in managing health records.

2.4 | Sampling Technique

The hospital human resource manager acquired the sampling frame and gave a copy of the current staff establishment records at the Etinan General Hospital, Etinan, Akwa Ibom State. The survey targeted healthcare professionals working in General Hospital Etinan who are directly involved in managing health records. A random sampling method was used to select participants from different departments within the hospital, including medical records officers, nurses and administrative staff. The sample size was determined based on the number of healthcare professionals involved in health record management in the hospital.

2.5 | Method of Data Analysis

The responses from the questionnaire were analysed using qualitative research methods to identify critical issues and challenges faced by the hospital in managing health records. The data were coded and categorised to identify common themes and patterns. The findings were presented in a descriptive form and were statistically presented in percentage, and a chi-square statistical tool was used to test the hypotheses at a 0.05 level of significance.

```
Formula for Chi-Square (X2) is \frac{X^2 = \sum (O_i - E_i)^2}{E_i}, where O1 = Observed frequency, E1 = Expected frequency, X2 = Chi-Square. To obtain the E = (CT X ET)/ET. Where CT = Column Total, ET = Expected Values,
```

Level of Significance = 0.05,

Decision Rule of acceptance or rejection.

When the calculated chi-square (X2) value is greater or equal to the critical table value, reject the null hypothesis and accept the alternative hypothesis. If the tabulated X2 value exceeds the calculated value, accept the null hypothesis and reject the alternative hypothesis.

3 | Results and Discussion

This section analysed the data obtained from the respondents through the questionnaires. The findings were discussed to enhance understanding. Simple percentages and chi-square were used to analyse the data. One hundred and twenty (120) questionnaires were administered, and one hundred (100) was recovered at 83.3% recovery rate. The analysis of respondents' socio-demographic characteristics is presented in the following tables.

Table 1. Distribution and collection of questionnaire (Field Survey).

	`	• ,	
Number of D	istributed	120	100%
Number of R	etrieved	100	83.3%
Number of N	Ion-Retrieved	20	16.7%

The analysis of the table above revealed that 120 (100%) questionnaires were distributed, and 100 (83.3%) were recovered. The lost percentage was 16.7%.

Table 2. Gender distribution of respondents.

Variables	Number of Respondents	Percentage
Male	38	38%
Female	62	62%
Total	100	100%

The analysis in the table above revealed that 38% of the respondents were male while the female respondents were also 62%.

Table 3. Age distribution of respondents.

Variable Number of Respondents		Percentage	
20-30	31	31%	
31-40	41	41%	
41-50	19	19%	
51 and above	9	9%	
Total	100	100%	

From the analysis in the table above, it was revealed that 31% of the respondents were between the ages of 20 and 30 years of age, 41% of the respondents were between the ages of 31 and 40 years of age, 19% of the respondents were between the ages of 41 to 50 years of age while 9% of the respondents were between the ages of 51 and above.

Table 4. Marital Status of respondents.

Variable	Number of Respondents	Percentage
Single	31	31%
Married	48	48%
Divorced	9	9%
Widowed	12	12%
Total	100	100%

From the analysis in the table above, it was revealed that 31% of the respondents were single, 48% were married, 9% of the respondents were divorced, and 12% of the respondents were widowed.

Table 5. Educational qualification of respondents.

Variable	Number of Respondents	Percentage
ND	19	19%
HND	33	33%
BSc	41	41%
MSc/PhD	7	7%
Total	100	100%

From the analysis in the table above, it was revealed that 19% of the respondents had a National Diploma as their highest qualification, 33% of the respondents had a Higher National Diploma as their highest qualification, 41% of the respondents had a Bachelor of Science Degree as their highest qualifications while 7% of the respondents had either a Master's degree or a PhD as their highest qualifications.

Table 6. Department of the respondents.

Variable	Number of Respondents	Percentage
Doctors	25	25%
Health records	10	10%
Nurses	30	30%
Pharmacy	5	5%
Lab. technologist	12	12%
Administrative staff	18	18%
Total	100	100%

From the analysis in *Table 6*, it was observed that 25% of the respondents were Doctors, 10% were Medical Record officers, 30% were nurses, 5% were Pharmacists, and 12% were Laboratory technologists. In comparison, 18% were administrative staff.

Table 7. Years of work experience of respondents.

Variable	Number of Respondents	Percentage
1 - 5 years	31	31%
6 - 10 years	28	28%
11 - 15 years	17	17%
16 - 20 years	11	11%
21 - 25 years	6	6%
26 and above	7	7%
Total	100	100%

From the analysis in *Table 7*, it was deduced that 31% of the respondent had between 1 to 5 years of work experience at the chosen medical centre, 28% of the respondent had between 6 to 10 years of work experience at the medical centre, 17% of the respondent had between 11 to 15 years work experience at the medical centre, 11% of the respondents had between 16 to 20 years work experience at the Etinan general hospital, 6% of the respondent were had between 21 to 25 years of work experience at the Etinan general hospital while 7% had worked for over 26 years.

3.1| Findings from Research Questions

The data collected from the field were presented in a tabular form and later analysed using the percentage technique to depict the respondents' views on the subject matter, as shown in *Tables 8-11*.

Question 1. What are the constraints against properly handling health records?

S/N	Items	Options	Percentage of Respondents
1	Inadequate infrastructure	Yes	75%
		No	25%
2	Shortage of trained HIM professionals	Yes	78%
		No	22%
3	Insufficient funding	Yes	76%
		No	24%
4	Poor standardised policies	Yes	82%
		No	18%

Table 8. Constraints militating against proper handling of health records.

From the analysis in *Table 8*, it was observed that 75% of the respondents believed that inadequate infrastructure is a significant constraint against proper handling of medical records. In comparison, 25% of respondents had a different opinion. Also, 78% of respondents believed that a shortage of trained HIM professionals is another constraint, while 22% ticked the contrary. In addition, 76% of the respondents claimed insufficient funding, while 24% were of other views. Furthermore, 82% of respondents feel that poor standardised policies exist, while 18% disagree.

Question 2. What are the major solutions to the possible threats affecting the proper management of Health Records at the general hospital Etinan?

Table 9. Solutions to the possible threats affecting proper health records management at the general hospital Etinan.

S/N	Items	Options	Percentage of Respondents
5	Provisions of adequate	Yes	88%
3	infrastructure	No	12%
(Employment of trained HIM	Yes	72%
6	professionals	No	28%
7	Duraniaia na afifan da	Yes	79%
/	Provisions of funds	No	21%
8	Implementation of	Yes	80%
0	standardised policies	No	20%

From the analysis in *Table 9*, it was found that 88% of the respondents believed that provisions of adequate infrastructure would be a significant solution to the constraints militating against the proper handling of medical records, while 12% of the respondents were of a different opinion. Also, 72% of the respondents believed employing trained HIM professionals would cushion the constraints, while 28% believed otherwise. In addition, 79% of the respondents claimed funding provisions would help resolve the constraints, while 21% thought otherwise. Furthermore, 80% of respondents agreed that implementing standardised policies would solve the constraints, while 20% disagreed.

Question 3. What are the possible measures to improve health records preservation in the general hospital Etinan?

	neath records in the general hospital Diman.			
S/N	Items	Options	Percentage of Respondents	
0	D	Yes	83%	
9	Provisions of space	No	17%	
10		Yes	78%	
10	In-service training for professionals	No	22%	
1.1	D (11 (1 CC 1	Yes	77%	
11	Proper utilisation of funds	No	23%	
12	Provision of effective tools for the	Yes	79%	
12	proper preservation of health records	No	21%	

Table 10. Possible measures of improving the preservation of health records in the general hospital Etinan.

From the analysis in *Table 10*, 83% of the respondents agreed that provisions of adequate space would be a possible measure of improving the preservation of health records in the general hospital. In comparison, 17% of the respondents disagreed. Also, 78% of the respondents agreed that In-service training for HIM staff professionals would cushion the constraints, while 22% disagreed. In addition, 77% of the respondents believed that properly utilising funds would help resolve the constraints, while 23% thought otherwise. Furthermore, 79% of the respondents agreed that providing effective tools will aid the proper preservation of health records and bring solutions to the constraints, while 21% disagreed.

Question 4. What are the strategies for preserving medical information at the general hospital Etinan?

S/N	Items	Options	Percentage of Respondents
13	By keeping records flat and fully	Yes	76%
	supported on tables	No	24%
14	By establishing a framework to	Yes	75%
safegu	safeguard medical information	No	25%
15	By providing adequate resource	Yes	74%
allocat	allocation	No	26%
16	Keeping a clean filing	Yes	82%
	environment	No	18%

Table 11. Strategies for preserving medical information at the General Hospital Etinan

From the analysis in *Table 11*, 76% of respondents agreed that keeping records flat and fully supported on tables is a major strategy for maintaining proper medical information, while 24% disagreed. Also, 75% of the respondents agreed that establishing a framework to safe guard medical information will cushion the constraints, while 25% disagreed. In addition, 74% of the respondents believed adequate resource allocation would help resolve the constraints, while 26% thought otherwise. Furthermore, 82% of the respondents agreed that providing effective tools will aid the proper preservation of health records and bring solutions to the constraints, while 18% disagreed.

3.3 | Research Hypothesis

This section will test the hypothesis formulated in this study using the data obtained from the respondents on the questionnaire. The 100 questionnaires obtained from the respondents were used as a basis for the work.

Hypothesis 1.

H_o: There is no constraint against properly handling health records at the general hospital in Etinan.

H: There is a constraint militating against the proper handling of health records at the general hospital Etinan.

100

Variables Yes **(E)** No **(E)** Total Male 28 10 38 (24)(8)Female 47 (51)15 (17)62

(75)

25

Table 12. Observed (O) and (E) expected frequency table in relation to question 1.

To obtain the $E = \frac{CT \times ET}{ET}$,

Total

75

where CT = Column Total,

ET = Expected Values,

Level of Significance = 0.05 = 3.84,

$$\frac{(28-24)^2 + (10-8)^2 + (47-51)^2 + (15-17)^2}{24},$$

$$= 0.67 + 0.5 + 0.31 + 0.24$$

$$= 1.7 \text{ as the calculated value.}$$
3.84 is the table value,

Decision rule of acceptance or rejection.

If the X² calculated is greater than the X² tabulated, reject the null hypothesis, but if the X² calculated is less than the X² tabulated, accept H₀. When the calculated chi-square (X²) value is greater or equal to the critical table value, reject the null hypothesis and accept the alternative hypothesis. If the tabulated X² value exceeds the calculated value, accept the null hypothesis and reject the alternative hypothesis. Since the calculated value of 1.7 is less than the table value 3.84, the H₀ is accepted, and Hᵢ is rejected. This implies that constraints do not militate against the effective and proper handling of health records at the General Hospital Etinan, Akwa Ibom State.

Hypothesis 2.

H_o: There is no solution to the possible threats affecting the proper management of health records at the general hospital in Etinan.

H: There is a solution to the possible threats affecting proper health records management at the general hospital in Etinan.

Question 5. What are the major solutions to the possible threats affecting proper Health Records management at the general hospital Etinan?

Table 13. Observed (O) and (E) expected frequency table in relation to question 2.

Variables	Yes	(E) No	(E)	Total
Male	23	(28) 15	(10)	38
Female	49	(44) 13	(18)	62
Total	72	(72) 28	(28)	100

*Source: Questionnaire

The data used in this hypothesis was randomly picked from the pool of items 5-8 from *Table 9*. It represents item 6 from that table: Employment of trained HIM professionals as a solution to the possible threats affecting proper management of Health Records.

Decision Rule of acceptance or rejection.

If the X^2 calculated is greater than the X^2 tabulated, reject the null hypothesis, but if the X^2 calculated is less than the X^2 tabulated, accept H_o . When the calculated chi-square (X^2) value is greater or equal to the critical table value, reject the null hypothesis and accept the alternative hypothesis. If the tabulated X^2 value exceeds the calculated value, accept the null hypothesis and reject the alternative hypothesis. Since the calculated value of 5.26 is greater than the table value of 3.84, the H_o is rejected, and $H_{i is}$ accepted. This implies that a solution to the possible threats affecting proper health records management exists at the general hospital in Etinan.

Hypothesis 3.

H_o: There are no possible measures to improve the preservation of health records in the general hospital Etinan.

H_i: There are possible measures to improve the preservation of health records in the general hospital in Etinan.

Question 6. What are the possible measures for improving the preservation of health records in the general hospital in Etinan, Akwa Ibom State?

Table 14. Observed (O) and (E) expected frequency table in relation to question 3.

Variables	Yes	(E)	No	(E)	Total
Male	29	(33)	9	(5)	38
Female	48	(44)	14	(18)	62
Total	77	(77)	23	(23)	100

*Source: Questionnaire

The data used in this hypothesis was randomly picked from the pool of items 9-12 from *Table 10*. It represents item 11 from that table, which is the proper utilisation of funds as a possible measure of improving the preservation of health records in the general hospital in Etinan.

```
To obtain the E = \frac{CT \times ET}{ET},
Where CT = Column Total,
ET = Expected Values,
         (C-1)(E-1)
         (2-1)(2-1)
             1
         Level of Significance = 0.05 = 3.84
         (29 - 33)^2 + (9 - 5)^2 + (48 - 44)^2 + (14 - 18)^2
             33
                          5
                                                    18
         = 0.48
                        3.2 +
                                   0.36
                                                 0.89
         = 4.93 as the calculated value,
           3.84 is the table value,
```

Decision Rule of acceptance or rejection.

If the X^2 calculated is greater than the X^2 tabulated, reject the null hypothesis, but if the X^2 calculated is less than the X^2 tabulated, accept H_0 . When the calculated chi-square (X^2) value is greater or equal to the critical table value, reject the null hypothesis and accept the alternative hypothesis. If the tabulated X^2 value exceeds the calculated value, accept the null hypothesis and reject the alternative hypothesis.

Since the calculated value of 4.93 is greater than the table value of 3.84, the H_o is rejected, and $H_{i\,is}$ accepted. This implies that there are possible measures for improving the preservation of health records in the general hospital in Etinan, Akwa Ibom State.

Hypothesis 4.

H₀: There is no strategy for preserving medical information at the general hospital, Etinan.

H: There is a strategy for preserving medical information at the general hospital Etinan.

Question 7. What are the strategies for maintaining medical information at the general hospital Etinan?

Table 15. Observed (O) and (E) expected frequency table in relation to question 4.

Variables	Yes	(E)	No	(E)	Total
Male	26	(30)	12	(8)	38
Female	54	(52)	6	(10)	62
Total	82	(82)	18	(18)	100

^{*}Source: Questionnaire

The data used in this hypothesis was randomly picked from the pool of items 13-16 from *Table 11*. It represents item 16 from that table, which is keeping a clean filing environment as one of the strategies for preserving medical information at the general hospital in Etinan.

To obtain the E =
$$\frac{\text{CT X ET}}{\text{ET}}$$

Where CT = Column Total,
ET = Expected Values
(C -1) (R - 1)
(2 - 1) (2 - 1)
1 1
Level of Significance = 0.05 = 3.84,
 $\frac{(26 - 30)^2}{30} + \frac{(12 - 8)^2}{40} + \frac{(54 - 52)^2}{40} + \frac{(6 - 10)^2}{40}$
30 8 52 10
= 0.53 + 2 + 0.31 + 1.6
= 4.44 as the calculated value,
3.84 is the table value,

Decision Rule of acceptance or rejection.

If the X^2 calculated is greater than the X^2 tabulated, reject the null hypothesis, but if the X^2 calculated is less than the X^2 tabulated, accept H_o . When the calculated chi-square (X^2) value is greater or equal to the critical

table value, reject the null hypothesis and accept the alternative hypothesis. If the tabulated X^2 value exceeds the calculated value, accept the null hypothesis and reject the alternative hypothesis.

Since the calculated value of 4.44 is greater than the table value of 3.84, the H_o is rejected, and H_{i is} accepted. This implies that there is a strategy for preserving medical information at the general hospital Etinan.

4 | Conclusion

Numerous constraints and limitations hinder the proper management of health records in Etinan General Hospital. These constraints include inadequate funding, shortage of trained personnel, poor infrastructure, and inadequate technology. These limitations have a significant impact on the quality of healthcare services provided to patients, as well as on the overall efficiency and effectiveness of healthcare delivery in Etinan General Hospital. Some of the major constraints facing the proper management of health records in this facility are as follows:

- I. Inadequate funding: insufficient financial resources make it difficult for hospitals to invest in the necessary infrastructure, technology, and personnel to manage health records effectively. This results in a shortage of proper storage facilities, outdated technology, and a shortage of trained personnel, all of which contribute to the poor management of health records.
- II. Shortage of trained personnel: the facility does not have enough staff trained in HIM. This results in a shortage of expertise in managing health records, leading to errors, inefficiencies, and delays in accessing patient information. Without adequately trained personnel, hospitals cannot maintain accurate and up-to-date health records, which can have profound implications for patient care and safety.
- III. Poor infrastructure: the health facility also lacks the necessary infrastructure, such as secure storage facilities, reliable internet connectivity and adequate computer systems, to effectively manage health records. This results in a reliance on paper-based records, which are prone to loss, damage, and theft, leading to inaccuracies and inefficiencies in record-keeping.
- IV. Inadequate technology: etinan General Hospital lacks the necessary technology to manage health records efficiently, such as electronic health record systems. This results in a reliance on manual record-keeping processes, which are time-consuming, error-prone, and inefficient. Without the proper technology, hospitals cannot securely store, access, and share patient information, leading to delays in care and potential risks to patient safety.

In conclusion, the constraints and limitations of proper management of health records in Etinan General Hospital significantly impact the quality of healthcare services provided to patients. To address these challenges, it is essential for the government to adequately fund hospitals and invest in training their personnel, infrastructure, and technology to manage health records effectively. By addressing these constraints and limitations, Etinan General Hospital can improve the efficiency and effectiveness of healthcare delivery, ultimately leading to better patient outcomes and improved healthcare services.

4.1 | Recommendations

Proper management of health records is crucial for ensuring the delivery of quality healthcare services in Etinan General Hospital. However, several constraints and limitations hinder the effective management of health records in these healthcare facilities. The following recommendations suggest how the constraints and limitations associated with managing health records in this facility can be improved. The following recommendations are made for further improvement of this medical facility:

- I. The government needs to invest in upgrading the infrastructure of Etinan General Hospital and provide them with the necessary resources to manage health records effectively.
- II. Hospitals must invest in training and capacity-building for their staff in HIM. This will ensure that competent personnel properly manage and maintain health records.

III. The Etinan General Hospital needs to develop and implement standardised policies and procedures for managing health records. This will help ensure that health records are managed systematically and efficiently, improving patient care.

The proper management of health records is essential for ensuring the delivery of quality healthcare services in Etinan General Hospital. The government must invest in infrastructure and resources, provide staff training, and develop standardised policies and procedures to address the constraints and limitations that hinder the effective management of health records in these healthcare facilities. By implementing these recommendations, Etinan General Hospital can improve the management of health records and ultimately enhance the quality of patient care.

Author Contribution

Conceptualization: Blessing Imoh Ime; Data curation: Ayodele Philip and Blessing Imoh Ime; Methodology: Mfonobong Enyong; Writing –original draft: Blessing Imoh Ime; Writing–review & editing: Mfonobong Enyong; All Authors have read and approved the manuscript.

Fundin

There is no funding.

Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [1] Opele, J. K. (2017). Knowledge management practices, interprofessional collaboration, information technology application and quality health service delivery in Federal Tertiary Hospitals in Nigerian [Thesis]. https://www.researchgate.net
- [2] Collen, M. F., Slack, W. V., & Bleich, H. L. (2015). Medical databases and patient record systems. *The history of medical informatics in the united states*, 207-288. DOI:10.1007/978-1-4471-6732-7_4
- [3] Luthuli, L. P. (2017). *Medical records management practices in public and private hospitals in Umhlathuze Area, South Africa* [Thesis]. https://uzspace.unizulu.ac.za/handle/10530/1625
- [4] Yaya, A. J., Asunmo, A. A., Abolarinwa, S. T., & Onyenekwe, N. L. (2015). Challenges of record management in two health institutions in lagos state, Nigeria. *International journal of research in humanities and social studies*, 2(12), 1–9. http://www.ijrhss.org/pdf/v2-i12/1.pdf
- [5] Bakare, A. A., Abioye, A. A., & Issa, A. O. (2016). An assessment of records management practice in selected local government councils in ogun state, Nigeria. *Journal of information science theory and practice*, 4(1), 49-64.. DOI:10.1633/jistap.2016.4.1.4
- [6] De Mingo, A. C., & Cerrillo-i-Martínez, A. (2018). Improving records management to promote transparency and prevent corruption. *International journal of information management*, 38(1), 256-261. https://www.sciencedirect.com/science/article/pii/S0268401217306242
- [7] Handayani, P. W., Hidayanto, A. N., Pinem, A. A., Hapsari, I. C., Sandhyaduhita, P. I., & Budi, I. (2017). Acceptance model of a hospital information system. *International journal of medical informatics*, 99, 11-28. https://www.sciencedirect.com/science/article/pii/S1386505616302726
- [8] Braa, J., Hanseth, O., Heywood, A., Mohammed, W., & Shaw, V. (2007). Developing health information systems in developing countries: The flexible standards strategy. MIS quarterly: management information systems, 31(2), 381–402. DOI:10.2307/25148796
- [9] Bansal, A. K., Khan, J. I., & Alam, S. K. (2020). Healthcare Data Organization. In *Introduction to computational health informatics* (pp. 197–254). Chapman and Hall/CRC. DOI: 10.1201/9781003003564-4

- [10] Williams, F., & Boren, S. A. (2008). The role of the electronic medical record (EMR) in care delivery development in developing countries: a systematic review. *Informatics in primary care*, 16(2), 140-145. https://www.researchgate.net
- [11] Ronchi, A. M., & Ronchi, A. M. (2019). E-health: background, today's implementation and future trends. In *E-services: toward a new model of (inter) active community* (pp. 1-68). Springer. https://link.springer.com/chapter/10.1007/978-3-030-01842-9 1
- [12] Fernández-Alemán, J. L., Señor, I. C., Lozoya, P. Á. O., & Toval, A. (2013). Security and privacy in electronic health records: A systematic literature review. *Journal of biomedical informatics*, 46(3), 541-562. https://doi.org/10.1016/j.jbi.2012.12.003
- [13] Wager, K. A., Lee, F. W., & Glaser, J. P. (2005). *Managing health care information systems: a practical approach for health care executives*. John Wiley & Sons. https://books.google.com/books
- [14] Sánchez, J. L., Savin, S., & Vasileva, V. (2005). Key success factors in implementing electronic medical records in University Hospital of Rennes. *L'ecole nationale de la santé publique (national school of public health), rennes, rennes, france, 1.*
 - $https://citeseerx.ist.psu.edu/document?repid=rep1\&type=pdf\&doi=51c43f030c3369527b6b36330312764\\1cc011dbb$
- [15] Kohli, R., & Tan, S. S.-L. (2016). Electronic health records. *Mis quarterly*, 40(3), 553–574. https://www.jstor.org/stable/26629027
- [16] Melton, G. B., McDonald, C. J., Tang, P. C., & Hripcsak, G. (2021). Electronic health records. Biomedical informatics: computer applications in health care and biomedicine (pp. 467–509). Springer. https://link.springer.com/chapter/10.1007/978-3-030-58721-5_14