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Optimizing Inpatient Care: Evaluating the Quality of Nursing Documentation at Cite Verte District Hospital, Yaounde Cameroon

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Abstract

Documentation serves as a critical written record of patient care, including assessments, interventions, and outcomes. However, healthcare systems in Cameroon, including Cite Verte District Hospital in Yaoundé, face significant documentation gaps, potentially compromising patient safety and care. This study assessed the quality of nursing documentation for inpatients at this hospital. A retrospective descriptive cross-sectional design was employed, using a mixed-method approach. Quantitative data were collected from 300 patient records, while qualitative insights were gathered through interviews with nine nurses. Findings revealed inconsistencies in documentation completeness across various categories. While patient identification details were generally recorded, discrepancies existed, with 51% missing patient contact information and 0% personnel signatures. Admission records showed deficiencies in patient education (10.33%) and personnel signatures (12.33%). Vital signs documentation had critical gaps, particularly in pediatric units where BP was unrecorded (0%). Qualitative findings highlighted diverse nursing perspectives on documentation, recognizing its importance yet facing challenges such as high workload, staff shortages, inadequate training, and inconsistent practices. Proposed strategies for improvement included increasing staffing levels, implementing routine documentation audits, providing continuous training, and emphasizing the importance of accurate record-keeping. It is thus essential to address both organizational challenges and individual behaviors to ensuring complete, accurate, and high-quality nursing documentation.

Keywords: *Completeness, Health Records, Inpatients, Nurses, Nursing Documentation, Quality*.

Introduction

Documentation in healthcare involves the systematic recording of patients' information including assessments, interventions and outcomes. It is a critical component for ensuring effective patient care, continuity, and safety and plays a central role in communication among healthcare providers. Its uses when done accurately and comprehensively includes for legal purposes, quality assurance, and evidence-based practice [1]. In nursing, this written record not only helps guide treatment decisions but also serves as a valuable tool for monitoring patient progress and evaluating care outcomes [2]. Despite being recognised as important, the quality of nursing documentation has often been suboptimal, predominantly in resource-limited settings where its effectiveness is hindered by numerous challenges [3].

Various factors are recorded as contributing to inadequate documentation practices, including insufficient training, heavy workloads, and poor system design.

In some healthcare systems, Electronic Health Records (EHR) have been introduced to address documentation issues which could help

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minimize human errors with the advantages such as real-time updates, easy access to patient information, and the reduction of paperwork [4]. Additionally, to ensure that essential data are captured systematically standardized forms and checklists have been used in some hospitals. These strategies have shown promise in improving documentation quality in several developed countries [5] However, their implementation in resource-constrained environments remains challenging due to factors such as high implementation costs, limited technological infrastructure, and inadequate staff training [6, 7].

The limitations of both paper-based and electronic systems are evident in many healthcare settings. While Paper-based documentation is cost-effective, it can result in information being misplaced, lost, or incomplete due to human error or physical damage. Moreover, it can be time-consuming for nurses who already face significant workload pressures, potentially detracting from patient care. In contrast, EHRs, though beneficial, face barriers such as poor infrastructure, internet connectivity issues, and the high cost of implementing these systems, making them less viable in some settings [5]. Despite these obstacles, efforts to improve documentation quality have had some success through the introduction of training programs, regular audits, and feedback mechanisms. These initiatives have helped improve the accuracy, timeliness, and consistency of documentation in certain settings [8].

However, the challenges related to nursing documentation are particularly pronounced in low- and middle-income countries like Cameroon [9, 10]. As per WHO in these settings, factors such as limited resources, inadequate technological support, and high nurse-to-patient ratios exacerbate existing documentation problems [11]. Cameroon is located in central Africa with a nurse patient ration of about 1:13 making a high workload which could influence on documentation. More so, nurses in Cameroon often face significant challenges, including a lack of standardized documentation practices, insufficient training in documentation procedures, and inadequate resources for maintaining accurate records. This may lead to omission of vital patient information or documented incorrectly, leading to communication breakdowns, mismanagement of care, and, in some cases, adverse patient outcomes [12]. Furthermore, the quality of documentation is rarely assessed in these settings, and there is little emphasis on improving these practices, leaving gaps that hinder the overall quality of care [13, 14].

Despite these challenges, some health facilities have made efforts to address nursing documentation issues but without a comprehensive approach to improving documentation practices, the potential for improving patient care remains limited. This gap shows a need on assessing the quality of nursing documentation and identifying the specific challenges nurses face in maintaining high-quality records. This study aimed at assessing quality of nursing inpatient documentation.

Materials and Methods

The study was conducted at Cite Verte District Hospital in Yaoundé, Cameroon, a 4th-category medical facility established in 1986. Located in the Mfoundi division of the Yaoundé II district, the hospital serves a population of over 400,000 inhabitants, providing preventive, promotional, and curative healthcare services. It offers a range of services, including medical, surgical, and pediatric care, all of which were included in this study. The hospital's strategic location and comprehensive services made it an ideal setting for assessing the quality of nursing documentation.

A retrospective descriptive cross-sectional design was employed, utilizing a mixed-method approach to collect both quantitative and qualitative data. The quantitative component

involved reviewing patient records from the past year, focusing on key documentation components such as admission information, vital signs, treatment charts, nursing care plans, and discharge information. For the qualitative aspect, interviews were conducted with nursing staff to understand their perspectives on the completeness, accuracy, and challenges of nursing documentation.

Data collection involved a simple purposeful sampling technique, selecting patient files from the medical, surgical, and pediatric units. A systematic sampling method was employed, starting at a point and selecting every 5th file for evaluation using the checklist. The sample size for the study was estimated to be 385 based on a population of 432,858, using a 95% confidence level and a 5% margin of error. However, 300 patient files were ultimately reviewed, encompassing all files available within the selected units for the year 2023. For the qualitative aspect, interviews were conducted with nursing staff, and saturation was reached after interviewing 9 nurses.

The primary tool used for data collection was a clinical audit checklist, adapted from the N-catch and D-catch charts, which have been used to assess the quality of nursing documentation for inpatient care. The checklist included six sections: cover page, admission information, vital signs, treatment chart, nursing care plan, and discharge components. Additionally, an interview guide was used to gather qualitative data from the nursing staff, exploring their perspectives on the meaning of nursing documentation, its completeness, accuracy, challenges faced, and their suggestions for improving documentation practices.

Data were sorted, organized, and entered into a database for analysis. The quantitative data were analyzed using SPSS version 21, where descriptive statistics such as frequency distributions, means, and percentages were calculated. The results were presented using tables, pie charts, and bar charts. The qualitative data from the interviews were transcribed verbatim to ensure accurate representation of participants' responses. Thematic analysis was employed to identify recurring themes and patterns within the data, with interpretations made to provide insights into the quality of nursing documentation practices at the hospital. The triangulation of both quantitative and qualitative data allowed for a comprehensive understanding of the documentation practices and areas for improvement.

Authorisation to carry out research was gotten from Experiential higher institute of science of and technology. Administrative authorization was also issued by the director of the Cite Verte district hospital then from each of the unit heads concerned. Consent of the participants (nurses) was sought by describing in detail, both verbally and written the purpose of the study. Participants' confidentiality was also assured.

Results

Quality of Nursing Documentation

The quantitative aspect of the study assessed nursing documentation quality at Cite Verte District Hospital in Yaoundé. It revealed several key findings, gaps, and discrepancies across various documentation areas:

Cover Page Documentation:

This study revealed that information on patient names and ages was consistently documented across all units (100%). However, documentation of patient contact information and emergency contacts varied:

Patient Contact: 53% in the medical unit, 100% in the surgical unit, and 0% in the pediatric unit. Emergency Contact: 42% in the medical unit, 100% in the surgical unit, and 100% in the pediatric unit. Personnel Signature: Not documented in any unit (0%). These discrepancies are reflected in figure 1 below.

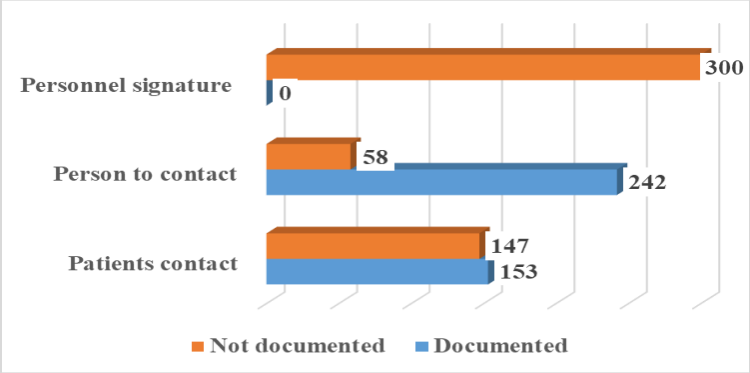

Figure 1. Illustration of Documentation Discrepancies on the Cover Page

This reveals a lack of accountability related to absence of personnel signatures, inconsistency in practices related to documentation of patients contact.

Admission Information

Admission date, chief complaint, medical history, surgical history, family history, and medication history were fully documented (100%) across all units. Social history was documented in 100% in the medical and surgical units but only 0% in the pediatric unit. Allergy information was documented in 31% in the medical unit, 66% in the surgical unit, and 100% in the pediatric unit. Patient education was documented in 0% in the medical unit, 31% in the surgical unit, and 0% in the pediatric unit. Personnel signatures were documented in 63% in the medical unit, 100% in the surgical unit, and 100% in the pediatric unit.

Figure 2 shows that there are still issues of accountability as seen by absence of personnel signature on some files. The lack of patient education documentation (0% in medical and pediatric units) suggests patients may not receive necessary information upon admission. Incomplete allergy documentation (69% not documented in the medical unit) could lead to safety risks.

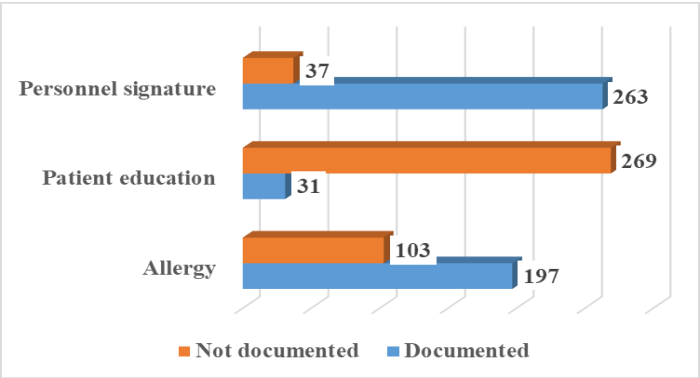

Figure 2. Illustration of Discrepancies in the Documentation of Admission Information

Treatment Chart Information

Medication name, dose, and frequency were fully documented (100%) across all units. Route of administration was not documented in any unit (0%). Personnel signatures were documented in 76% in the medical unit, 41% in the surgical unit, and 75% in the pediatric unit.

The absence of route documentation (0%) may be due to template limitations. Inconsistent personnel signatures (41% in the surgical unit) suggest variability in documentation practices as seen in figure 3.

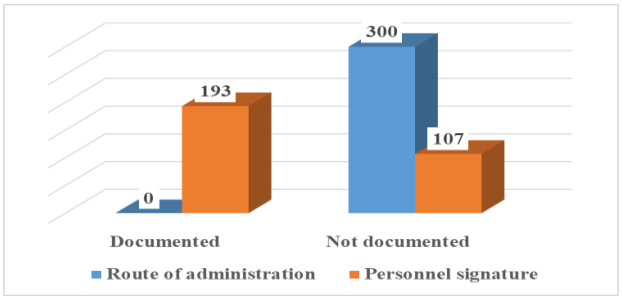

Figure 3. Illustration of Discrepancies in Documentation of Information on the Treatment Chart

Vital Signs Documentation:

Temperature was fully documented (100%) across all units. Pulse and blood pressure were documented in 100% in the medical and surgical units but 0% in the pediatric unit. Respiration rate and oxygen saturation were documented in 14% and 14% in the medical unit, 24% and 25% in the surgical unit, and 0% in both in the pediatric unit. Personnel signatures were documented in 20% in the medical unit, 34% in the surgical unit, and 0% in the pediatric unit.

As seen in figure 4, the pediatric unit's 0% documentation of pulse, blood pressure, respiration rate, and oxygen saturation may be due to equipment limitations. Low documentation rates for respiration rate and oxygen saturation (12% and 13% overall) are concerning. The absence of personnel signatures in the pediatric unit (100% not documented) indicates a significant accountability issue.

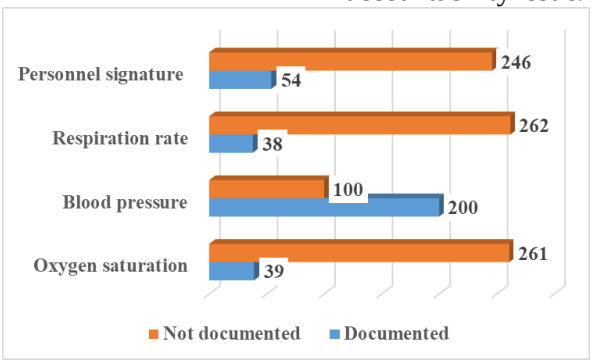

Figure 4. Discrepancies in Documentation of Vital Signs Measurement

Nursing Care Plan

No nursing care plans were available, used, or updated in any unit (0%). This suggests that patients' nursing needs are not being systematically addressed.

Discharge Notes

Discharge date, status upon discharge, and medication regime were fully documented (100%) across all units. Follow-up dates were documented in 60% in the medical unit, 100% in the surgical unit, and 100% in the pediatric unit. Client education upon discharge was documented in 10% in the medical unit, 21% in the surgical unit, and 7% in the pediatric unit. Personnel signatures were documented in 80% in the medical unit, 72% in the surgical unit, and 100% in the pediatric unit.

The low documentation of follow-up dates (40% not documented in the medical unit) and client education (87% not documented overall) suggests areas for improvement. The absence of personnel signatures in the surgical unit (28% not documented) indicates potential accountability issues. Figure 5 reflects these discrepancies in documentation of discharge notes.

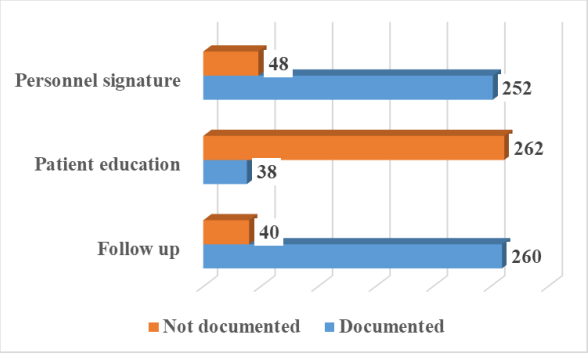

Figure 5: Discrepancies in Recorded Discharge Information

The assessment shows that there are gaps related to personnel signatures, patient education, documentation of route of medication, documentation of complete vital signs, absence of nursing care plans.

Nursing Staff Perceptions of Documentation Quality

Looking at nursing staff perceptions of documentation quality, focusing on completeness and accuracy. Interviews revealed several key themes.

Meaning of Nursing Documentation

Comprehensive Record of Patient Information**:** Nurses view documentation as encompassing all aspects of a patient's hospital journey, from admission to discharge. One nurse stated, *"There are notes about patients' health in the hospital from the time they came to the time they leave the hospital." (K3*)

Documentation of All Observations Made**:** Emphasis is placed on recording detailed observations, especially in pediatric care where patients may not communicate symptoms effectively. A nurse noted, "Kids cannot tell what is wrong with them so documentation becomes my detective work... I therefore document their play, behaviour and any other change I notice." (K2)

Template-Based Documentation**:** Some nurses highlighted reliance on hospital-provided templates, which may limit the scope of information recorded. "*For us here we only write what the hospital has on their templates." (K6)*

Task-Oriented Documentation**:** Focus on documenting nursing activities and interventions performed for patients. "*To me documentation is writing everything we as nurses do for a patient." (K7)*

Documentation Completeness

Ensuring all required information is written Completeness involves documenting all required or expected information. *"Completeness means that all the things that are in the book have been written." (K1*)

Inclusion of important details**:** Some nurses believe completeness means including all important details without necessarily recording every minor aspect. *"I think it means having all the important details written but doesn't have to be every tiny detail." (K4)*

Comprehensive shift documentation: Thorough recording of all actions taken during a shift. *"To me, I think it is when I write down everything I and my team do during our shift." (K5)*

Documentation Accuracy

Exact Recording of Actions and Patient Statements**:** Accuracy involves precisely documenting nurse actions and patient statements. "*It's all about writing exactly what you did and what the patient says."* (K1)

Completeness and Thoroughness**:** Some nurses see a thin line between accuracy and completeness. "*It is almost the same as completeness, I think it is also when you write everything in the patient's book."* (K3)

Correctness of Information: Ensuring all recorded information is correct. *"For me, it has to do with writing the information correctly." (K5)*

Detailed and Clear Charting**:** Emphasis on detailed and clear documentation to provide a precise account of patient status. "This accuracy thing... boils down to one thing, which is crystal clear charting." (K6)

The results show documentation templates are limited restricting the scope of documentation potentially omitting critical patient information. It also revealed nurses have different interpretations of what constitutes completeness and accuracy, leading to inconsistencies in documentation practices. It also highlights the peculiarity and challenge in documentation at the paediatric unit. These findings suggest a need for standardized documentation practices, comprehensive training, and possibly revising templates to ensure thorough and accurate patient records.

Challenges in Maintaining High Quality Documentation

The study revealed some key challenges faced by nurses in documenting to include:

High patient load and staff shortages, nurses complained of having heavy workloads and insufficient staffing, leading to incomplete documentation. As mentioned by this informant "*Here in this hospital, we are not many with too many patients making it challenging to do everything at times I just forget."* (K2)

Lack of training and refresher Courses was also identified. *"Another difficulty we face is because we do not get the chance for refresher courses in this hospital»* as indicated by K2. The absence of ongoing training hinders proper documentation practices.

Some nurses feel unmotivated to document due to a lack of feedback. As mentioned by one participant *"I don't even see the need to write because the matron never goes through those things.*" (K6). This shows a lack perceived importance in documenting since it's hardly been used

For other nurses they highlighted negligence and inconsistent Documentation by Colleagues. *"The issue here is our colleagues some of them don't write what they do but I think because of negligence and all this make it very difficult for us to work."* (K7, K3) Inconsistent documentation by peers creates challenges.

Proposals to Improve the Quality of Documentation

To improve on the quality of documentation suggestions made included adding more staff "If they want to help us, I think employing more colleagues for this unit will reduce the stress on us." (K2) . increasing staffing level could reduce workload and improve documentation. As for others there was need to regularly review the documents. A nurse indicated, "*I think from time to time the unit coordinator and matron should go through the documents." (K5*) Regular oversight by unit coordinators and matrons could enhance documentation quality.

They need for continuous and ongoing training was also identified "If they send us to learn more about this documentation thing more it will help." (K2) Providing additional training and education could improve documentation skills. As well as highlighting the importance, significance and legal implications of documentation may encourage better practices. "*If people are reminded on the importance of writing what they did for the patient maybe they might pay more attention to it*." (K7)

The study reveals a gap between the perceived importance of documentation and the actual practices among nursing staff. While nurses acknowledge the significance of thorough and accurate documentation, challenges such as high patient load, lack of training, and perceived lack of oversight lead to inconsistencies. Additionally, reliance on standardized templates may limit comprehensive patient information recording.

Addressing these discrepancies through increased staffing, regular reviews, enhanced training, and emphasizing the critical role of documentation is essential for improving patient care quality.

Triangulating the quantitative and qualitative findings from the assessment of nursing documentation quality mainly based on

Personnel Signatures: At Cite Verte District Hospital, quantitative data indicates significant gaps in nursing documentation, notably the absence of personnel signatures across all units' cover pages (0%), incomplete admission information in the medical unit (37%), deficient treatment chart information in the surgical unit (59%), and substantial omissions in vital signs documentation across medical (80%), surgical (66%), and pediatric (100%) units, as well as incomplete discharge notes in the medical (20%) and surgical (28%) units. Qualitative insights reveal that while nurses understand the importance of thorough documentation, challenges such as high patient load, lack of training, and perceived lack of oversight hinder their ability to maintain comprehensive records. This triangulation of data highlights a discrepancy between nurses' recognition of proper documentation practices and the actual implementation, suggesting that systemic issues like staffing shortages, insufficient training, and inadequate supervisory mechanisms contribute to the observed documentation deficiencies.

Patient Education Documentation: At Cite Verte District Hospital, documentation of patient education was notably low, with 0% in the medical and pediatric units and 31% in the surgical unit for admission information, and 10% in the medical, 21% in the surgical, and 7% in the pediatric units for discharge notes. Nurses acknowledged the importance of documentation and suggested that emphasizing its significance and providing additional training could improve practices, indicating a recognition of the need for better patient education documentation. However, the low rates of patient education documentation suggest a disconnect between perceived importance and actual practice.

Vital Signs Documentation: At Cite Verte District Hospital, vital signs documentation was notably deficient, with 0% recorded for pulse and blood pressure in the pediatric unit, and low documentation rates for respiration rate and oxygen saturation across all units, including 0% in the pediatric unit. Nurses identified challenges such as high patient load and staff shortages as contributing factors to this incomplete documentation. The critical importance of vital signs monitoring underscores the need for improvement, especially in the pediatric unit, where documentation rates are alarmingly low.

Nursing Care Plans: At Cite Verte District Hospital, the absence of nursing care plans across all units (0%) indicates a systemic issue in care planning and documentation. Qualitative insights suggest that challenges such as high workload and insufficient training may contribute to this absence.

Challenges Identified: Nurses identified several challenges impacting documentation quality, including high patient load, staff shortages, lack of training, perceived lack of oversight, and inconsistent practices among colleagues. These issues align with quantitative findings of incomplete documentation, suggesting that addressing these challenges could enhance documentation quality.

The triangulation of quantitative and qualitative data reveals a consistent gap between the recognized importance of thorough nursing documentation and actual practices at Cite Verte District Hospital.

Discussion

The assessment of nursing documentation quality at Cite Verte District Hospital in Yaoundé reveals significant gaps across various areas, including cover page documentation, admission information, treatment chart information, vital signs documentation, nursing

care plans, and discharge notes. These findings are consistent with previous studies that have identified similar challenges in nursing documentation practices. A study conducted in Yaoundé assessed the routine health information system in health facilities, identifying gaps and weaknesses in documentation practices [15].

For instance, a study by Wang et al. found that incomplete documentation was often due to high patient loads and staff shortages, leading to omissions in critical patient information [16] This aligns with the challenges reported by nurses at Cite Verte District Hospital, who cited heavy workloads and insufficient staffing as barriers to thorough documentation.

Additionally, the lack of ongoing training and refresher courses has been identified as a contributing factor to poor documentation practices. Ahmed et al. emphasized the importance of continuous education in improving documentation accuracy and completeness [17]. Nurses at Cite Verte also highlighted the need for additional training to enhance their documentation skills.

The absence of nursing care plans across all units is particularly concerning, as care plans are essential for systematic patient care. A study on nurses' experiences with the adoption and use of the nursing process in urban hospitals in Yaoundé revealed that the nursing process is not effectively utilized despite attempted efforts, indicating challenges in documentation practices [18]. furthermore, a study in the Netherlands reported that the implementation of structured care plans led to improved patient outcomes and more consistent documentation practices [19] The lack of such plans at Cite Verte suggests a systemic issue that could impact patient care quality.

Furthermore, the low rates of patient education documentation observed in this study mirror findings in other study which noted that inadequate documentation of patient education can lead to misunderstandings and decreased patient satisfaction [20]. Emphasizing the importance of documenting patient education, as suggested by nurses at Cite Verte, could address this gap.

The challenges identified in this study included high patient load, staff shortages, lack of training, and inconsistent documentation practices, are consistent with findings from other studies. For example, Sarkies et al. found that similar issues, such as staffing challenges and inadequate training, can negatively impact documentation quality and patient care and highlights the need for audit and feedback [21].

This study reveals several areas for further research to improve documentation quality and patient care. Key areas include examining how nurse-to-patient ratios impact documentation accuracy, assessing the role of supervisory oversight and regular audits, exploring the benefits of standardized documentation templates, investigating barriers to patient education documentation, studying the implementation of nursing care plans, assessing the potential of electronic health records (EHRs) and other digital tools, and exploring how organizational culture influences documentation practices. Addressing these areas could provide valuable insights into the underlying causes of documentation deficiencies and which if addressed could enhance nursing documentation quality.

Conclusion

This study which was aimed at assessing quality of nursing documentation has illuminated critical deficiencies across multiple facets, including incomplete cover page information, inconsistent admission details, omissions in treatment charts, inadequate vital signs monitoring, the absence of nursing care plans, and insufficient discharge notes. These findings are corroborated by qualitative insights, where nursing staff identified challenges such as high patient loads, staffing shortages, lack of training, and perceived oversight deficiencies as significant barriers to effective documentation.

The justification for this work lies in its potential to directly enhance patient care quality. High-quality nursing documentation is pivotal for ensuring patient safety, continuity of care, and effective communication among healthcare providers. Studies have demonstrated that comprehensive and accurate documentation facilitates better patient outcomes and supports clinical decision-making.

The results from this assessment can be utilized to improve on documentation practices. Implementing standardized documentation templates, providing regular training programs, increasing supervisory oversight, and addressing systemic issues such as staffing shortages are potential strategies to mitigate the identified deficiencies. Furthermore, this work lays the groundwork for future research to explore the effectiveness of these interventions and to examine the impact of improved documentation on patient outcomes.

Addressing the identified gaps in nursing documentation is not only essential for enhancing the quality of patient care but also serves as a critical step toward fostering a culture of accountability and continuous improvement within institutions.

Conflict of Interest

There are no conflicts of interest.

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