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Digital Documentation in Healthcare: Empowering Nurses and Patients for Optimal Care

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Abstract. In response to challenges associated with extensive documentation practices within the NHS, this paper presents the outcomes of a structured brainstorming session as part of the Chief Nurse Fellows project titled 'Digital Documentation in Healthcare: Empowering Nurses and Patients for Optimal Care." Grounded in Dr. Rozzano Locsin's theory of "Technological Competency as Caring in Nursing," this project leverages a Venn diagram framework to integrate Digital Maturity Assessment (DMA) results with the "What Good Looks Like" (WGLL) Framework, the ANCC Pathway to Excellence, and the eHospital EPR program vision of University Hospitals of Leicester NHS Trust. Participants, including Clinical IT facilitators and nursing leaders, engaged in identifying synergies and gaps across digital proficiency, nursing excellence, and patient-centric care, contributing actionable insights towards an optimized digital patient care model. The findings emphasize the need for holistic digital solutions that enhance documentation efficiency, support staff excellence, and improve patient outcomes.

Keywords. nursing informatics, digital documentation, patient-centric care, nursing excellence, healthcare technology, ANCC pathway to excellence, digital maturity assessment, technological competency as caring, quality improvement in healthcare, health informatics, electronic health records (EHR), national health service (NHS) innovations

1. Introduction

The landscape of healthcare has been profoundly transformed by digital innovation, with digital documentation becoming increasingly integral to nursing practice and patient care [1]. The shift from traditional paper-based records to digital systems has revolutionized the way health information is recorded, stored, and accessed. In nursing informatics, this digital evolution promises enhanced efficiency, accuracy, and accessibility of patient data, potentially improving care quality [2]. However, challenges such as higher error rates with new technologies and increased documentation time can negatively impact nurse satisfaction and the overall quality of care [3].

Recent trends in healthcare technology, particularly in nursing informatics, have focused on optimizing patient care through advanced data management and analysis [4].

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The integration of technologies like Electronic Health Records (EHR), Large Language Models (LLMs), and Artificial Intelligence (AI) has opened new avenues for improving patient outcomes and nursing workflows [5].

Despite these technological advancements, a notable challenge remains: the considerable amount of time a nurse dedicates to digital documentation. This responsibility occupies a large segment of their daily work schedule, frequently driving attention away from direct patient interaction [6]. In healthcare environments, nurses can spend a significant amount of time solely on documentation, highlighting a critical need for more efficient practices [7]. This study aims to explore strategies for streamlining digital documentation processes in healthcare settings, thereby enabling nurses to devote more time to patient care. Key questions include: How can digital documentation be made more efficient? What role can emerging technologies play in enhancing these processes? Improving digital documentation is paramount for nursing practice. Enhanced documentation methods can lead to more time for patient interaction, improved patient care, and increased job satisfaction among nurses [8]. Our study is grounded in Dr. Rozzano Locsin's "Technological Competency as Caring in Nursing" theory, which advocates for a harmonious integration of technology and caring in nursing [9]. This framework is pivotal in examining how digital tools can complement and enhance the caring aspect of nursing [10]. The need for this study is underscored by the evolving dynamics of healthcare technology and the pressing demand for efficient documentation systems. Addressing this gap is essential for advancing nursing practice and patient care in the digital era [11]. Through this research, we aim to contribute to the broader discourse on nursing informatics by offering insights that are applicable both within the National Health Service (NHS) in the United Kingdom and internationally, highlighting universal strategies that can be adopted to improve digital health practices worldwide.

2. Methods

We employed a comprehensive mixed-methods approach designed to evaluate the impact of digital documentation systems on nursing practice and patient care. The methods integrated both quantitative and qualitative techniques, leveraging the unique strengths of each to capture a holistic view of the intervention's outcomes. The Digital Maturity Assessment (DMA) results as a quantitative component were utilized as baseline data to evaluate the current state of digital proficiency within the Trust. Qualitatively, a brainstorming session was conducted. This study focused on integrated digital documentation within nursing practices to enhance patient care efficiency and nurse satisfaction, guided by Dr. Locsin's theory. Participants included Clinical IT facilitators, nursing documentation project manager, a business analyst, benefits realization lead, the chief nurse information officer, assistant chief nurse in research and innovation and other key stakeholders from the healthcare team. Recruitment was conducted through internal communications within the NHS Trust, targeting professionals directly involved with or affected by digital documentation processes.

Data was primarily collected through a structured brainstorming session that utilized a Venn diagram to facilitate discussion. Participants engaged in the group activity, where they provided insights and feedback on predefined questions related to digital documentation across three intersecting thematic areas: Digital Proficiency and Guidelines, Nursing Excellence and Wellbeing, and Patient-centric Digital Care. In detail, the circles represent key areas of digital healthcare integration. Circle A: Digital

Maturity Assessment and "What Good Looks Like" Framework, Circle B: American Nurses Credentialing Centre (ANCC) Pathway to Excellence, Circle C: eHospital EPR program vision. Participants were asked to address specific questions within each circle and discuss overlapping areas to identify synergies and gaps. Feedback was collected using sticky notes during the brainstorming session, which participants placed in relevant sections of the Venn Diagram based on the discussion points. This method facilitated dynamic interaction and allowed for the aggregation of qualitative data reflecting collective insights.

Responses and notes from the brainstorming session were compiled and subjected to thematic analysis to identify common themes, challenges, and potential improvements. The analysis was framed around Dr. Locsin's theoretical approach, focusing on how digital tools could enhance the caring aspect of nursing. Following the session, a survey was disseminated to all participants to quantitatively measure their perceptions of digital documentation practices, the effectiveness of current tools, and the impact of digital interventions on patient care and nursing workflows. All participants were informed about the study's aims and methods and provided consent before participating. Ethical considerations were strictly adhered to, ensuring that all data was anonymized and used solely for the purpose of this study. This structured approach allowed for a deep dive into the specific impacts of digital documentation tools, aligning technological advances with the intrinsic values of nursing care. The methodology facilitated a robust dialogue among stakeholders, providing a well-rounded perspective on how digital documentation could evolve to better support clinical practices and enhance patient outcomes.

3. Results

Significant findings emerged from the thematic analysis of data gathered during the brainstorming session. With the impact on digital proficiency and guidelines, participants noted that increased digital proficiency among staff correlates strongly with the effectiveness and efficiency of digital documentation systems. However, gaps in training and infrastructure support were highlighted, indicating a need for well-structured digital literacy programs within the NHS Trust. The alignment with the "What Good Looks Like" framework revealed that while some standards were being met, there are several areas of digital documentation practices that require enhancement to fully meet these benchmarks.

Digital documentation was found to influence nursing excellence and wellbeing positively by providing real-time information, which aids in feedback and patient involvement. However, issues such as the 'tick-box' mentality, stress, and the multiplicity of assessments were identified as significant barriers to achieving optimal nursing practice. Suggestions to streamline digital documentation to reduce the administrative burden on nurses were prevalent, highlighting the need for more intuitive and less cumbersome interfaces.

Enhancements in digital documentation were shown to support patient-centric care by reducing repetitive data entry and integrating comprehensive patient data from diverse sources. Yet, challenges related to the implementation of these systems, such as their impact on personalized patient interactions, were noted. Participants expressed a strong desire for digital systems that are more aligned with patient care needs, emphasizing the importance of incorporating patient and family input into documentation processes.

Across the intersections of the three circles, participants identified potential for significant synergy in areas such as training and staff development, technology tools enhancing patient care, and nursing care enriched through technology. The consensus pointed towards an integrated approach where technology solutions not only address operational efficiency but also enhance the quality of care, aligning with both staff needs and patient expectations.

4. Discussion

The thematic analysis of the brainstorming session from the Chief Nurse Fellows Program project, underscores the nuanced integration of technology in nursing as advocated by Dr. Locsin's theory. The findings from this project study indicate that while digital documentation systems enhance operational efficiency, they can inadvertently detract from patient care unless properly aligned with nursing's caring aspects. This includes challenges such as the 'tick-box' mentality and the insufficient training programs that do not fully incorporate the ethical dimensions of nursing informatics. Participants emphasized the need for systems that support rather than complicate nursing workflows, reflecting Locsin's principle that technology should enrich the caregiver's ability to provide compassionate care. Additionally, discussions revealed a critical gap in aligning current digital practices with standards from the WGLL Framework and the ANCC Pathway to Excellence. This misalignment calls for focused improvements in digital infrastructure and training, aiming to equip nurses with both the technological proficiency and the ethical grounding necessary for high-quality patient care. Looking forward, the study identifies a strong need for ongoing collaboration between nurses, IT specialists, and patients to ensure digital tools are both effective and empathetic. This approach will not only enhance the practicality of digital documentation systems but also ensure they uphold the intrinsic values of nursing care, fostering an environment where technology truly serves the principles of patient-centered care and professional excellence.

5. Conclusions

The study highlights the necessity of integrating digital systems that enhance nursing efficiency while preserving the essence of patient care. Grounded in Dr. Locsin's theory, the research reveals a critical need for digital documentation strategies that harmonize technological advancements with the caring fundamentals of nursing. This study emphasizes that digital tools should not only streamline documentation processes but also enrich nurse-patient interaction. Such an approach would allow nurses to devote more attention to patient-centered care, thereby enhancing the quality of care provided. However, the findings, primarily from the University Hospitals of Leicester NHS Trust, raise considerations about their broader applicability and underscore potential limitations in predicting long-term effects. Despite these challenges, the project illustrates a transformative shift in healthcare delivery, where technology complements the caring nature of nursing, suggesting significant implications for healthcare policy and practice. The successful implementation of digital documentation systems could lead to widespread changes in healthcare practices, aligning operational efficiency with enhanced patient care.

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