



Digitalization of Medical Records and Its Impact on Healthcare Quality: Case of the Children's Hospital Ibn Sina, Rabat, Morocco

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Abstract

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The digitalization of medical records represents a key strategy to improve healthcare quality, enhance operational efficiency, and ensure patient data security. This study aimed to evaluate the impact of electronic medical records implementation at the Children's Hospital Ibn Sina in Rabat, Morocco. A quantitative cross-sectional study was conducted using a self-administered questionnaire among healthcare professionals involved in medical record management. Statistical analysis, including chi-square tests, was performed to assess associations between digitalization and healthcare outcomes. The results showed that electronic medical records improved data accessibility, enhanced interprofessional coordination, and reduced risks of medical errors. Healthcare professionals reported better traceability and improved workflow efficiency. However, challenges such as insufficient training, technical difficulties, and data confidentiality concerns were identified. The study concludes that digitalization significantly improves healthcare quality and operational performance while highlighting the need for continuous training and infrastructure improvement to ensure optimal implementation.

I. Introduction

The digital transformation of healthcare systems has become a global priority to improve healthcare quality, efficiency, and patient safety. Electronic Medical Records (EMR) enable healthcare professionals to access patient information quickly and securely, improving clinical decision-making and care coordination (Ebo et al., 2025).

In Morocco, the Ministry of Health has initiated several digital health strategies to modernize healthcare services and improve healthcare delivery. The Children's Hospital Ibn Sina in Rabat has progressively implemented digital medical records to enhance care quality and patient data management (Harfaoui et al., 2024).

Despite these advancements, challenges remain, including technical barriers, lack of training, and concerns regarding data confidentiality. Therefore, this study aims to evaluate the impact of medical record digitalization on healthcare quality, operational efficiency, and patient safety (Tiya et al., 2025).

II. Methods

a. Study Design

A quantitative cross-sectional study was conducted at the Children's Hospital Ibn Sina, Rabat.

b. Participants

Healthcare professionals involved in medical record management participated in the study.

c. Data Collection

Data were collected using a structured self-administered questionnaire assessing:

- Use of electronic medical records
- Perceived impact on healthcare quality
- Reduction of medical errors
- Operational efficiency
- Data confidentiality

d. Statistical Analysis

Data were analyzed using descriptive statistics and Chi-square tests to identify associations between variables.

III. Results and discussion

The results showed that most healthcare professionals perceived digital medical records positively. Key findings include:

- Improved access to patient data
- Better coordination between healthcare professionals
- Reduction in medical errors
- Improved care traceability
- Increased operational efficiency

However, some challenges were identified:

- Lack of adequate training
- Technical system limitations
- Data confidentiality concerns

These findings align with previous studies demonstrating the benefits of electronic medical records in improving healthcare quality and patient safety. These findings are consistent with the study conducted by Torab-Miandoab and al (Torab-Miandoab et al., 2025).

IV. Conclusion

The digitalization of medical records significantly improves healthcare quality, operational efficiency, and patient safety. Despite some technical and organizational challenges, electronic medical records represent a crucial step toward modernizing healthcare systems in Morocco. Continuous training and infrastructure improvement are essential to maximize the benefits of digital healthcare systems.

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