

Understanding Hospital Nursing Practice in the Age of the Electronic Health Record

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Background:

Use of technology, such as electronic health records (EHRs), is increasing within Canadian healthcare systems to support the provision of safe, quality patient care. However, concerns have been raised that technology use diverts nurses' attention to computers and away from direct patient care. EHR use is often simply associated with documentation practices, but evident benefits include streamlined communication, improved collaboration, ease of documentation, and reduced paper reliance. As a result, EHR use is integrated into many facets of nursing work, visibly influencing aspects such as documentation, nurse-patient relationships, and care coordination. However, EHR influence is more expansive, also impacting nurses' invisible work [1], such as management of patient care trajectory.

Purpose:

To understand how information and communication technologies (ICTs), such as EHRs, are influencing modern day hospital nursing practice.

Methods:

We conducted a systematic literature review of published ethnographic and time-motion studies focused on the use of EHR in nursing practice. From a search of four electronic library databases, 1,144 articles were retrieved and screened, and 102 were analyzed in detail. For the purpose of this poster, a sample of articles was selected to highlight key research findings on the influence of EHR use on nursing practice in acute care hospitals.

Hospital nurses and electronic health records (EHR): Myths VS research findings

Myth 1:

Nurses' work = direct patient care.

Research findings:

Nurses spend 60-75% of their time on indirect care, or management of patient care trajectory, including 26-40% of their time interacting with the EHR. These activities are crucial for quality care but invisible to the public & hospital administration. EHR can assist or interfere with nurses' ability to manage patient care trajectory. [3, 4, 13]

Myth 2:

The EHR is a simple addition to nurses' work. EHRs streamline charting, but otherwise nurses' work remains essentially unchanged.

Research finding:

Computers and EHRs are actors transforming nurse – patient interaction and nurses' work. [1, 2, 7, 8]

Myth 3:

EHR = elimination of paper records in hospitals.

Research findings:

Paper charting & informal paper notes are still used on a daily basis (e.g., nurses' scraps, paper brains, non-electronic handover, whiteboards to manage patients). EHRs are not 100% electronic. [6, 7, 11]

Myth 4:

Physicians are primary end-users of EHRs. Nurses are not impacted by EHRs.

Research findings:

Physicians and nurses play different yet important roles; however, nurses' roles are understudied & undervalued. As such, nursing workflows are more vulnerable to being disrupted with the implementation of an EHR. [2, 5]

Myth 5:

EHR = complete & easily accessible information to support ongoing care trajectory for a hospitalized patient.

Research findings:

EHRs are successful as information archives but don't (&can't) provide up-to-the-moment & contextualized snapshots of patient status. [1]

Nurses scour EHRs to extract relevant information, triangulate it with information from other sources, create working knowledge of the patient for ongoing care provision & communicate this knowledge to other providers. [1, 2, 10, 12]



Myth 6:

With the shift to electronic retrieval and inputting of information (aka electronic documentation), EHRs reduce the need for verbal communication.

Research findings:

While EHR tools (patient lists, provider notes, medication administration records MAR, electronic provider order sets EPOS, clinical decision support systems CDSS, safety alerts, referral & scheduling entry, internal & external communication tools, lab & diagnostic imaging results, handover & accountability tools) are accessed electronically, in many instances their use produces *more* verbal communication to orchestrate the work of providers, sort out misunderstandings, clarify the urgency & significance of messages.

Myth 7:

Hospital IT departments understand nurses' work. EHRs are flexible & designed to support clinicians end-users.

Research findings:

Some EHRs are more flexible than others. Including nurse clinicians alongside nurse informaticians in the design and implementation of the EHR is a key success ingredient. [9]

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