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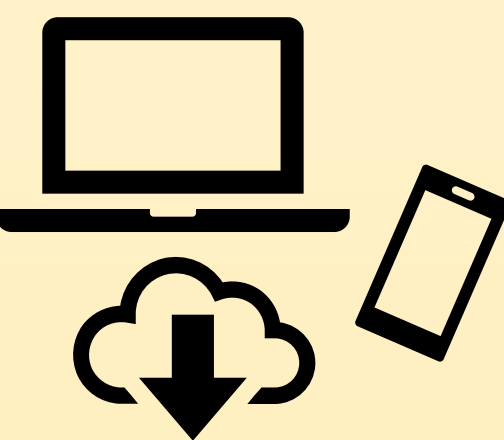
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# Academic Electronic Health Record Implementation Proposal



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## Abstract

In today's complex and evolving healthcare system it is crucial for nurses to proficiently comprehend electronic health records (EHR) in the provision of quality, safe patient care. Electronic health records have become a federal mandate for patient funding securement in many settings. Studies suggest that implementation of an academic electronic health record (AEHR) augments student learning for assuming the nurse role in key areas such as: data analysis, assessing patient care needs, administering medications safely, documenting effectively and professionally, and learning how to maintain a therapeutic nurse-client relationship with effective communication in the presence of technology (Jansen, 2014; Herbert & Connors, 2016). Additionally, evidence shows that the implementation of AEHR in a simulation enhances the realism and depth of learning for students as it better mirrors the clinical setting while facilitating faculty assessment of student skills (Meyer, Sternberger & Toscos, 2011). Even though research demonstrates ample benefits to the implementation of an AEHR in nursing education, the Nursing Department at Fort Hays State University (FHSU) utilizes paper patient charts in practice scenarios and in simulation experiences. This researcher recommends the implementation of an AEHR at FHSU to promote aptitude of the EHR, giving more time to direct patient care at time of clinicals.

## Introduction

- AEHR increases ability of students to practice safely with confidence/efficiency
- Benner's theory of experience from novice to expert applied
  - **Novice:** utilizing AEHR in practice, learning to access information, documentation, and navigating system preferences
  - **Proficient:** Quickly access specific information, thorough documentation, navigate patient information efficiently
  - **Expert:** mastered once in the workforce
- Students should enter the field with a strong understanding and skill set



## Literature Review

- Baccalaureate nursing students survey showed the AEHR to be helpful
  - Increased confidence with patient cares and medication administration
  - AEHR added realism to simulation (Jansen, 2014)
- Herbert and Connors concluded faculty need to implement AEHR learning experiences similar to real life
  - Integrated through all semesters (Herbert & Connors, 2016)
- The Korean Society of Medical Informatics study trialed an AEHR to complete structured tasks found:
  - Minor usability issues
  - Participants familiarized themselves quickly to the technology
  - Students expressed favorable attitudes towards the AEHR
  - Deemed beneficial to their education (Choi, Lee, & Park, 2015)
- Integrating an AEHR throughout nursing curricula provides opportunity to teach about evidence based practice, standardized nursing language, the IOM's core competencies all while giving them experience with informatics in healthcare (Meyer, Sternberger & Toscos, 2011)

## Methodology

**Research Question:** Will the implementation of an AEHR during simulation practice at FHSU's undergraduate nursing program increase time spent on direct patient care at time of clinical?

**Purpose:** Evaluate student preparedness at time of clinical pre/post AEHR implementation in simulation at FHSU using the Likert scale.

**Purpose:** Analyze the response from clinical preceptors of student preparedness and proficiency with EMR at time of clinical using the Likert scale. Was more time spent on direct patient cares as opposed to accessing information or documenting in the EMR?

**Design:** Single-group, descriptive study utilizing pre/post testing of FHSU students, post-test of clinical site preceptors. Convenience sample of students from FHSU and preceptors at clinical sites.

**Framework:** Benner's Novice to Expert model of clinical competence.

**Ethics:** Preceptor site and FHSU IRB approval to be obtained



## Conclusions

- AEHR teaches students to access information, analyze data, and document tasks
- Allows students to practice therapeutic nurse-client relationships with technology (Jansen, 2014)
- Faculty can fully assess students skills in a controlled, safe environment
- Overall research shows great benefit to implementing an AEHR
- Improved medication administration, patient safety, and quality of care, and evidence-based nursing
- Informatics competence and integration of AEHR's are a prerequisite to improving patient care
- **Future implications:** How can the AEHR be integrated throughout the curriculum in addition to simulation experiences?

Table 1. Survey items percentages and means

Item	% Agreed*	Mean (SD)
The EHR system was realistic.	100%	4.8 (.4)
The S/EHR provided a realistic clinical experience.	88%	4.4 (.7)
I would like to have more mannequin-based simulations in courses.	88%	4.6 (1.1)
It is important for the nursing program to use some type of EHR system.	81%	4.9 (1.1)
A student user fee of up to \$50.00 per student (good for 3 years) is a reasonable expectation for access to an EHR system.	63%	3.8 (1.4)
The S/EHR was easy to work with.	88%	4.3 (.7)
The S/EHR increased my ability to provide safe patient care.	69%	4.0 (1.0)
The S/EHR increased my ability to administer medications safely.	94%	4.4 (1.2)
The S/EHR increased my confidence in my medication administration skills.	75%	4.4 (1.0)
The S/EHR increased my overall confidence in the clinical setting.	63%	4.1 (1.1)

\* = percent of student who *slightly* (4) to *strongly agreed* (6) with an item. N = 16 students in the accelerated bachelor of science in nursing (BSN) program. S/EHR = Simulation/Electronic Health Record system. EHR = Electronic Health Record.

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