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ARTIFACTS

A Journal of Undergraduate Writing

Evaluation of Electronic Medical Record Implementation and Patient Satisfaction

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Evaluation of Electronic Medical Record Implementation and Patient Satisfaction
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University of Missouri
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ABSTRACT

Computers and electronic medical records are widely used by clinicians in ambulatory settings. Indeed, both the United States federal government and the National Health Service (NHS) in the United Kingdom have recently announced large initiatives to increase the use of computers as part of routine ambulatory care.¹ Unfortunately, there is little information on how physicians' use of computers in the outpatient exam room affects physician-patient communication. This study evaluates the impact of exam-room computers on communication between clinicians and patients.

INTRODUCTION

In this study clinicians were willing to use the system, which they perceived as having benefits for patients care, but were concerned about the increased time required for exams, effort required to learn the system while still interacting appropriately with the patient, increased monitoring of their performance, and other organizational issues.

¹Frankel et al. (2005) examined the influence of computers in the exam room on communication between clinicians and patients by utilizing longitudinal, qualitative study using videotapes of regularly scheduled visits from three points in time: 1 month before, 1 month after, and 7 months after introduction of computers into the exam room. The setting was a primary care medical clinic in a large integrated delivery system. They concluded that computers affected the visual, verbal, and postural connection between clinicians and patients.

²O'Malley, Cohen, Grossman (2010) used a study based on in-depth interviews with clinicians in 26 physician practices. They determined that electronic medical records assist real-time communication with patients during office visits, primarily through immediate access to patient information allowing clinicians to talk with patients rather than search from information from paper records. For some clinicians, however, aspects of EMRs pose a distraction during visits. Moreover, some indicated that clinicians may rely on EMRs for information gathering and transfer at the expense of real-time communication with patients and other clinicians.

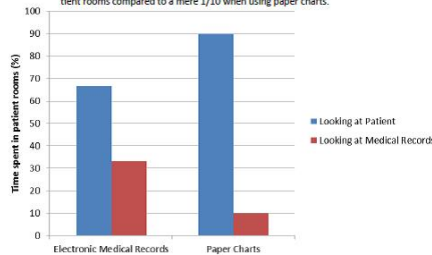
ACKNOWLEDGMENTS

I wish to acknowledge Dr. Bert Bachrach for supervising my internship. This project was not grant-supported.

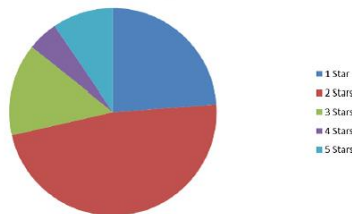
RESULTS

Figure 1: How Physicians Use Their Time in Patient Rooms

Data shows that physicians use over 1/3 of their time looking at a computer when EMRs are in the patient rooms compared to a mere 1/10 when using paper charts.



Unsatisfactory Cues



While in the room, patients' visual, verbal, and postural changes were observed and noted on a scale ranging from 1-5 Stars. A single star represents severe dissatisfaction and many changes in behavior while physicians were looking at the computer while up to 5 stars represents a visit in which little to no change was noticed as if the introduction of EMR and computers in the room made no change to patient satisfaction.

PROBLEM

Few clinicians in the United States use computers during patient encounters and many still worry that computers will depersonalize their interactions with patients.

METHOD

An observational study was used to observe the behavior in a systematic manner without influencing or interfering with the behavior in order to understand the cause and effect relationship between electronic medical records and patient satisfaction. A scale was used to rate whether the use of electronic medical records caused a visual, verbal or postural change in the patient. N = 20

CONCLUSION

It is not secret that electronic medical records (EMRs) have changed the way physicians focus on their patients, while capturing their medical information in exam rooms. It has been confirmed in many studies that because physicians spend so much time looking at EHRs, they miss out on nonverbal communication cues from patients. On average, physicians using EMRs in their exam room spend one-third of their time looking at a computer screen compared to physicians that still use paper charts that only spend around 10% of their time looking at their charts (Figure 1). Electronic medical records do improve the speed and organization of medical record keeping. It must be determined then in further studies if inviting patients to interact with the EMR will help increase patient satisfaction.

FUTURE PLANS

Further research will be vital in order to determine exactly what the implementations of EMRs are and how to increase patient satisfaction. A possible solution could lie in designing a more interactive program for patients to follow along with in the future.

SELECTED REFERENCES

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- ²O'Malley, A. S., Cohen, G. R., & Grossman, J. M. (2010, April). *Electronic medical records and communication with patients and other clinicians: Are we talking less?*. Retrieved from <http://www.hschange.com/CONTENT/1125/>

Part of **Issue 11**, published in December 2014

Topics: **Health and Society**

About *Artifacts*

Artifacts is a refereed journal of undergraduate work in writing at The University of Missouri. The journal celebrates writing in all its forms by inviting student authors to submit projects composed across different genres and media.

Artifacts is sponsored by [The Campus Writing Program](#).

Published by the Campus Writing Program.

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