Effects of electronic health records on transforming health

Being a part of the 21 [st] century is a great time to be alive! Technology is beginning to make improvements and control many aspects of everyday life including the healthcare setting. Health information technology (HIT), but more specifically electronic health records (EHRs) can be described as " a longitudinal record of patient health information generated by one or more encounters in any care delivery setting" (Sewell, 2016, pg. 269). An electronic health record can contain information specific to the patient's health status along with past health concerns. For example, patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports (Menachemi & Collum, 2012). Considering the easy loss of paper records, such as with natural disasters, it is no surprise that the use of electronic health records is on the rise. In more recent years, studies have shown that transforming health care with electronic health records is increasing and improving the quality of healthcare. Using EHRs allows care to be carried out aside from the basic way.

Fortunately, from observing the misfortunes with paper records and not being able to transfer records between healthcare providers, initiatives to increase the benefits of electronic health records in healthcare has been in effect since 2009 and is currently under way. More specifically, researchers are conducting studies to continue to evaluate EHR implementations worldwide along with any benefits discovered (Nguyen, Bellucci & Nguyen, 2014). The later sections of this paper discuss three recent studies that explored the effects of electronic health records on transferring healthcare

by enhancing patient safety, reducing medication errors, and aiding documentation.

Electronic Health Records Enhancing Patient Safety

A need for electronic health records is recognized worldwide. The reason it is needed is to provide safer care to patients. The American Medical Informatics Association (AMIA) developed ten recommendations to enhance patient safety while using electronic health records systems. The task force's recommendations were in four areas including: human factors health information technology research, health information technology (IT) policy, industry recommendations, and recommendations for the clinician end-user (Middleton et al., 2013). A qualitative study to address the issue was based on other reviews. The task force, which included those in the clinical setting, academia, and industry each reviewed previous reports and were able to draw conclusions and use that as a foundation to create the recommendations. The authors' overall goal when these recommendations were created was to increase safety and quality care (Middleton et al., 2013). Therefore, the authors' recommendations on enhancing safety and quality of care are beneficial to adopt as it can aid while applying them using electronic health records.

Electronic Health Records Reducing Medication Errors

The authors of this study, Radley et al. (2013), conducted a study to estimate the effects of EHRs on medication errors. The study took place in two phases and those phases are as follows: developing supporting statistics on EHR adoption and implementation, and using those supporting statistics

to come up with a percentage estimate and complete reduction estimate and complete reduction estimate in medication errors. A quantitative analysis consisted of collecting and using EHR survey data from survey items on the computer physician order entry (CPOE). The findings of this study were broken down into the two phases that the research was conducted. The findings of the first phase concluded that 34% of acute-care hospitals embraced CPOE in 2008; however, an extremely large amount of implementation was noted. The findings of the second phase concluded that medication error rates were lower about 48% after computer physician order entry implementation. The overall results concluded from this study are able to support the belief that electronic health records can positively reduce medication errors.

Electronic Health Records Aiding Documentation

The Medical Informatics Committee of the American College of Physicians conducted a review of clinical documentation to observe what best meets the needs of patients and their families (Kuhn, Basch, Barr & Yackel, 2015). The recommendations were approved in September 2014. The committee devised a list of recommendations that are divided into two categories. Those categories are as follows: policy recommendations for clinical documentation, and policy recommendations for EHR system design to support 21 [st] century clinical documentation. Clinical documentation was developed to track patient's health which is why it is extremely vital for every patient. In order to implement the recommendations, the healthcare team, including physicians, institutions, and technology vendors, must be

willing to adopt these recommendations to improve the quality of documentation. The recommendations that were developed were created by using a qualitative analysis. The results of this study indicate that electronic health records should be used advantageously to improve care and documentation by supporting critical thinking, effective and efficient documentation, and effectively displaying prior information to name a few (Kuhn et al., 2015). The recommendations by the American College of Physicians on improving clinical documentation are beneficial as it can help to transform healthcare.

Conclusion

Despite the differences in the approach, focus, and methodology of the studies mentioned previously, all the findings in the studies proposed that healthcare is indeed transforming when electronic health records are utilized properly in different components of the healthcare field. The findings reported by the various authors did not indicate any negative effects correlated to the use of EHRs on enhancing patient safety, reducing medication errors, and aiding documentation. At this time, more extensive studies need to be conducted to truly observe the pros and cons and as well as determine if the beneficial effects of enforcing EHRs to transform healthcare outweigh the high costs associated with EHR use.

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