



ETHICS IN ELECTRONIC HEALTH RECORD: AN OVERVIEW

Sivakumar Venkataraman* & Subitha Sivakumar**

* Sr. Lecturer, Faculty of Health and Education, Botho University,
Gaborone, Botswana

** Sr. Lecturer, Quality Assurance Department, New Era College,
Gaborone, Botswana

Cite This Article: Sivakumar Venkataraman & Subitha Sivakumar, "Ethics in Electronic Health Record: An Overview", *International Journal of Multidisciplinary Research and Modern Education*, Volume 8, Issue 1, Page Number 47-50, 2022.

Copy Right: © IJMRME, 2022 (All Rights Reserved). This is an Open Access Article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium provided the original work is properly cited.

Abstract:

The usage of Electronic Health Record (EHR) has taken a big role in Healthcare Sector and EHR are started to implement in most of the countries in the world. EHR helps in improving the quality of the treatment by referring the previous history and any time access. But, as a system EHR can be used anywhere any time, the query arises on its data security while sharing the data. Despite its rising utility and growing enthusiasm for its adoption, the ethical considerations that may arise are receiving little attention. Need to look way on how to secure the EHR Systems and found one way as to encode the data and then it can be shared with a security pin. This article entitles the different possible ways of the ethics or ethical considerations which can come by using the EHR Systems and its thinkable results that can be implemented.

Key Words: Electronic Health Record (EHR), Healthcare, Data Security, Enthusiasm, Ethics Or Ethical

Introduction:

Electronic Health Record Electronic (EHR) practice in healthcare sectors has grown rapidly from 2004 onwards (Vijayalakshmi et al., 2021). Electronic Health Record (EHR) is an automated system which is used in healthcare sectors which is used to maintain the key clinical data for each patient. The following are the few main key administrations functions in EHR.

- Identifying and maintaining the patient record
- Managing the Demographics information's of the patient
- Recording and managing the patient problems
- Recording and managing the patient past history
- Recording and managing the patient past and current medication history
- Recording and managing the patient family clinical problems
- Managing the patient diagnosis proceedings records and notes
- Capturing the up-to-date proposal and recommended procedures
- Capturing the result for X-rays, Computer Tomography Scan, Magnetic Resonance Imaging Scan, Ultrasound and other radiology images.
- Capturing the laboratories test results

Healthcare describes on how the patient health is maintained or how the patient health is improved through the preventions, analysis, findings, treatments, on curing the diseases, illnesses, injuries and other physical and psychological impairment from the body. Some of the Healthcare systems are Mental Healthcare system, Dental Healthcare System, Laboratories and Diagnostics Healthcare System, Prevention Healthcare System, Occupational Healthcare System, Pharmacological Healthcare System, Doctor and Nurse Healthcare System, nutritious Healthcare System and many other related Healthcare Systems are available. Healthcare is the act of the preventing, stopping, avoiding, averting and treatment for the diagnosis using the health professional facility (Shaharior et al., 2021); Yaser et al., 2021) and Dixon-Woods et al., 2012).

Data security is used as a method to protect the data from illegal of unauthenticated access. According to (Mohammad et al., 2019) one of the most value asset is data, it's not a matter of the type of organization whether an economical report, student performance report, employee report or patient care report. Hospital and Clinics should be alert about the threats happening of security breach and security in healthcare data thefts as most of the procedures are ready to access using the android devices (Abouelmehdi et al., 2017). This raises the question on data security in many organizations (Bipin Kumar, 2014).

Enthusiasm is an active attention shown on or for somebody or somewhat. Enthusiasm is similar to empathy where both goes on hand-hand on the way you expose to the patient. Enthusiasm is a decision marking which helps to move forward in a positive manner in a direction in healthcare in terms of more productive, more confident, with positive light and with peace of mind (Kelkar et al., 2021).

Ethics or ethical is the moral principles which governs a person behavior. Simply, ethics is a system included with moral values based on the rules and standards of the correct and incorrect that recommend for

human. Ethics helps humans to have a positive influence on decision making and with their activities. Ethics is more important in healthcare, it makes the employees to know the healthcare dilemmas, in making better decision making and good judgement implementing the values by considering the laws to be followed (Sheikh, 2007).

EHR comprises Doctors, Patient Information, insurance details, different types of medical records and laboratory test report and also (Rakesh et al., 2019) stated that the most common challenge is about the data security in healthcare sectors. According to (Vijayalakshmi et al., 2021) raised the challenge as collecting and feeding the patient data in EHR system for the doctors. The Confidentiality is one of the ethical principles and it states the patient can believe the healthcare providers that not to share the patient data to any other parties without getting the consent from the patient. But, (Sheikh, 2007) discussed that the Informed Consent is the present ethical issues arises in healthcare.

Ethical principles are basically categorized as six types as Beneficence, Nonmaleficence, Autonomy, Justice, Confidentiality and Veracity (Varke, 2021); (Rozemarijn et al., 2020) and (Drumwright, 2015). Ethical Principles helps to bring a bond between physician, healthcare and patient, it also improves the relationship among them.

Beneficence refers 'to do good'. The main duty is to make the Physicians and Health workers to energetically involve to provide give good health to the patient. The patient has the rights to get proper treatment and also well-being treated (Dorothy and Kenneth, 2020). Nonmaleficence refers 'to do no harm'. Nonmaleficence guides the physicians or the health workers to avoid harm to the patients or clients or customers purposefully or not purposefully (Ellen, 2008). Autonomy refers for all patient to have their own rights of self-determination, individuality and free liberty in making the decisions for own. In healthcare, the autonomy concerned with the ethical responsibilities of the physicians or healthcare workers in respecting the patients includes the informed consent, Confidentiality and avoidances (Jukka, 2006). Justice is a complicated ethical principle, it deals with the equitable distributions of benefit and burden for the persons (Fred, 2008) and (Soile et al., 2019). Confidentiality is a value where the physicians are not to share the confidential data provided by the patients to any other members without getting the patients approval (Practical, 2015). Veracity refers to truth telling, and is directly related to autonomy. Veracity entails the healthcare provider to be honest in the interaction with the patients, so it creates a good bond within the physicians and patients. Veracity helps the patient to make use of the autonomy to prefer in making own decisions (Pediatri, 2020).

Code of Conduct in Healthcare:

Code of Conduct is a policy outlines the set of rules and regulations of the organizations principles and standards. All workers should meet the code of conduct set by the organizations. Code of conduct in healthcare provides the equal quality in healthcare, maintain equal the money-cost and spinning, medically essential equal patient care (Siddiqui, 2016). Code of Conduct is most important only not for having the rules as an internal guideline, it also as an external declaration of commercial values and social communities.

Healthcare System Implementation:

Healthcare Systems are used to build and establish the data, skill and knowledge produced and used in the healthcare areas for supporting, planning, implementing, improving and even in decision making process (Lippeveld et al., 2000).

There are many challenges faced by the healthcare providers in implementing the Electronic Health Record (HER) as in resource wastage, unfulfilled workers, less patient confidence, challenging data security and questions in patient safety (Ricardo et al., 2021). Adequate cost is required in the developing, implementing and maintaining the EHR Systems. Manpower needs their involvement as in various areas like physicians, nurses, other providers, system technician, trainers and counsellors.

Without extensive doctor involvement, Healthcare Organizations are improving. Most of the Electronic Health Record adaption effect fail because the healthcare organizations not considering the need of the clinicians serve as clinic opinion leaders (Fouzia et al., 2015). It is very important to have consider the roles of the clinicians during the selection and implementation of EHR, planning the task flow design and in improving the quality.

An interface is generated when two systems are linked together. An interface between the user and the computer system is referred to as the user interface. These interfaces are crucial to the implementation process' overall success. The biggest risk in system integration is the interface. Poor user interfaces are frequently the result of a lack of systematic consideration of people and tasks. Unintended negative consequences of a poorly designed user interface include lower time efficiency, poor quality of treatment, and an increased risk to patient safety. Practice interruption during EHR installation can have a detrimental influence on treatment quality or put patients' safety at risk, as well as result in financial loss (Menachemi et al., 2007).

Inaccuracies in the Data:

The importance of information technology systems in the delivery of health care is becoming more widely recognized. Integrity assurances that the data is correct and has not been tampered. EHRs help to improve patient safety by minimizing healthcare mistakes, lowering health inequities, and improving overall public

health. However, questions concerning the quality and dependability of data submitted into the electronic record have been raised (Christina, 2017).

The patient's current condition is not accurately signified and captured in system causes not providing correct treatment, another problem in integrity is capturing data of or from dropdown list roots the physicians with limited options which leads to wrong major mistakes (Fouzia et al., 2015). The challenges in data integrity in healthcare systems principals the major role in data inaccuracy and its interrupts the ethics in healthcare.

Ethical Challenges in Healthcare:

Ethics might be considered as a need for medical practice to be successful. The clients will not use a service if the criteria are not in place to assure trust in the services delivered (Kirsti, 2001). According to (Cornelius et al., 2021) healthcare workers across the world encounter and handle a variety of information-related difficulties, including confidentiality, communication, professional responsibility, and decision-making.

Though data protection is a critical concern, privacy considerations must be balanced with other interests and values (Nicole et al., 2021). Classifying and resolving possible ethical dilemmas will benefit from interdisciplinary teamwork. Engaging persons with relevant knowledge outside of research teams, as well as stakeholders, provides valuable ideas on how to reduce the risk of damage to participants (Azmaeen, 2022).

Conclusion:

Healthcare ethics is critical because practitioners must recognize ethical difficulties, make sound judgments, and make decisions based on their beliefs while adhering to the laws that regulate them. It also aids in the resolution of conflicts between healthcare institutions, providers, and other healthcare-related individuals. It also settles disputes between family members, patients, and other parties. Ethics builds a good relationship between Physicians, Patients, healthcare providers and community.

References:

1. Abouelmehdi, K., Beni-Hessane, A., & Khaloufi, H. (2017). Big healthcare data: preserving security and privacy. *Journal of Big Data*.
2. Azmaeen, Z. (2022). The ethical challenges facing the widespread adoption of digital healthcare technology. *Health and Technology*, 175–179.
3. Bipin Kumar, R. (2014). Security Challenges and Solutions for Healthcare in the Internet of Things. *IEEE International Congress on Big Data*.
4. Christina, W. Y. (2017). Data Accuracy in Electronic Medical Record Documentation. *JAMA Ophthalmol*, 232-233.
5. Cornelius, E., Susan, H., & Kris, D. (2021). How do healthcare professionals respond to ethical challenges regarding information management? A review of empirical studies. *Global Bioethics*, 67-84.
6. Dixon-Woods M, M. S. (2012). Ten challenges in improving quality in healthcare: lessons from the Health Foundation's programme evaluations and relevant literature. *BMJ Quality & Safety*, 876-884.
7. Dorothy, S., & Kenneth, P. M. (2020). The ethics of neurologically complicated pregnancies. *Handbook of Clinical Neurology*, 227-242.
8. Drumwright, M. (2015). Behavioral ethics and teaching ethical decision making. *Decision Sciences Journal of Innovative Education*, 176-180.
9. Ellen, Z. A. (2008). Modifiers of Complementary Therapy: Legal, Ethical, and Cultural Issues. *Complementary Therapies for Physical Therapy*, 24-35.
10. Fouzia, O. F., Nayer, J., Amit, S., & Praveen, A. (2015). Ethical issues in electronic health records: A general overview. *Perspectives in Clinical Research*, 73-76.
11. Fred, F. M. (2008). The Ethical Principle of Justice: The Purveyor of Equality. *Annals of Long-Term Care*.
12. Jukka , V. (2006). The value of autonomy in medical ethics. *Medical, Healthcare and Philosophy*, 377-388.
13. Kelkar, A. H., Blake, J. A., Cherabuddi, K., Cornett, H., McKee, B. L., & Cogle, C. R. (2021). Vaccine Enthusiasm and Hesitancy in Cancer Patients and the Impact of a Webinar. *Healthcare*.
14. Kirsti, D. A. (2001). Ethical Challenges of Medicine and Health on the Internet: A Review. *Journal of Medical Internet Research*.
15. Lippeveld, T., Sauerborn, R., & Bodart, C. (2000). Design and implementation of health information systems. Geneva: World Health Organization.
16. Menachemi, N., Ford, E., Beitsch, L., & Brooks, R. (2007). Incomplete EHR adoption: Late uptake of patient safety and cost control functions. *American Journal of Medical Quality*, 319-326.
17. Mohammad, J. S., Sabina, R., William, G., Eric, P., & Stuart, M. (2019). Health Care and Cybersecurity: Bibliometric Analysis of the Literature. *Journal of Medical Research*.
18. Nicole, M.-M., Zelun, L., Amit, K., Ehsan, A., Albert, H., Sara, K. S., Arnold , M. (2021). Ethical issues in using ambient intelligence in health-care settings. *Lancet Digit Health*, 115-23.
19. PEDIATR, N. (2020). Practical Bioethics during the Exceptional Circumstances of a Pandemic. Elsevier Public Health Emergency Collection, 3-4.

20. Practical, E. (2015). Simplifying the Complexity of Confidentiality in Research. *Journal of Empirical Research on Human Research Ethics*.
21. Rakesh, K. S., Gayathri, N., Muthuramalingam, S., Balamurugan, B., Ramesh, C., & Nallakaruppan, M. (2019). Medical Big Data Mining and Processing in e-Healthcare. In Valentina E. H. S. Le, J. Sudan, K. Manju , & K. Raghvendra , *Internet of Things in Biomedical Engineering* (pp. 323-339). Academic Press.
22. Ricardo, L., Clarissa, C. M., Ademar, D., & Leonardo, C. C. (2021). Implementation of large-scale health information systems. *Revista de Gestao*, 106-132.
23. Rozemarijn, L. B.-V., Gert, v. D., Inez, B. d., & Francesco, M.-R. (2020). Ethical frameworks for complex medical decision making in older patients: A narrative review. *Archives of Gerontology and Geriatrics*.
24. Shaharior, R. R., Tasnuva, Y., Taimia , B. A., Shahin , I., Sheikh , M. I., Hailay , A. G., & Paul , W. (2021). Challenges Faced by Healthcare Professionals During the COVID-19 Pandemic: A Qualitative Inquiry From Bangladesh. *Frontiers in Public Health* .
25. Sheikh, S. (2007). The importance of ethics in healthcare System. *Journal of the Dow University of Health Sciences*.
26. Siddiqui, A. (2016). *Healthcare - Ethical Code, Code of Conduct and Professional Ethics*. General Directorate of Health. RiyadhAt: Public Health Department.
27. Soile , J., Kirsi , R., & Piia , S. (2019). The ethics of care and justice in primary nursing of older patients. *Clinical Ethics*.
28. Varkey, B. (2021). *Principles of Clinical Ethics and Their Application to Practice*. *Medical principles and practice* , 17-28.
29. Vijayalakshmi , S., Ishpreet , A., Hong , Y., Anju , P. s., & Akansha , S. (2021). Impact of big data in healthcare system—a quick look into electronic health record systems. In K. S. Krishna, E. Mohamed , S. Akansha , & E. A. Ahmed , *Machine Learning and the Internet of Medical Things in Healthcare*, (pp. 251-262). Academic Press.
30. Yaser , J., Asem , T., Sahar , K., & Amro , A.-M. (2021). Challenges to healthcare information systems development: The case of Jordan. *International Journal of Healthcare Management*, 447-455.