pISSN 2394-6032 | eISSN 2394-6040

Opinion Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20151595

Healthcare settings: the best ways to mitigate errors

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Received: 15 November 2015 **Revised:** 25 November 2015 **Accepted:** 18 December 2015

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ABSTRACT

Background: The aim of this article is to analyze the concept of medical errors and to find out the best ways to minimize them. This article produces some practical examples of situations of errors in medical settings. Also, it explains the contrast between developing countries and developed countries about reporting errors in the medical setting.

Methods: This article is prospective and it is analytic. It is based on factual approaches obtained from articles and books. It is based on the statistics obtained from data about medical errors in the United States. It also addresses the situation of medical errors in Africa.

Results: Medical errors are a real public health problem worldwide. Since there is a lack of medical error evaluation structures in some countries, the outcome is always catastrophic. In Africa; for example, many countries do not properly report the data. In the Republic of Guinea, there is no official data concerning medical errors. In those countries, there is no risk for physicians to lose their licenses because there are no structures to control their errors. While in the United States, medical errors are a big concern; the reporting systems of errors are developed. Errors in the United States can cause the physicians the suspension of their licenses and/or the process can result in their revocation. Medical errors happen everywhere in the world. In developed countries, even though the number of deaths due to errors is elevated; however, it is better addressed than it is in developing countries. In some countries, there is no appropriate data allowing to analyze and to address errors. In the United States, on who stayed in Liberia, went to the Texas Health Presbyterian Hospital for a fever. He informed the nurse about his travel history. Unfortunately, the patient (Dancan) was sent home after that initial visit. The hospital was criticized. It is possible to affirm that this was a big medical error. The patient died on October 08, 2014.

Conclusion: Medical errors are a serious Public Health problem worldwide; especially in Africa. The healthcare system is not free from total risks. Because errors are inherent to human nature, blaming or immediately terminating an employee involved in an error is not the right approach. Punitive approach is not effective. Instead, training and educational approach are the best ways to handle adverse event based on the Just Culture concept. Just Culture; Electronic Medical Records; Patient and Family Involvement in the Care; and the Appropriate Medical Professional Training can help to mitigate errors in healthcare settings. Those approaches will help to analyze the root cause; which would allow us to determine the real cause of errors, and find out the ways to mitigate those errors from happening in the future.

Keywords: Medical errors, Public health, Ethics, Just culture, Patients, Electronic Medical Records (EMR), Training

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INTRODUCTION

The main objective of healthcare professionals is to provide the best quality of patient care and the highest level of patient safety. To achieve that objective, there are many organizations that help improve the quality of care. One of the best examples is the Joint Commission. Unfortunately, the healthcare system is not free from total risks.

In healthcare activities, there are possible errors, mistakes, near miss and adverse events. All of those negative events are preventable. But, it is clear that errors caused in healthcare result in thousands of deaths in the United States.

In healthcare systems, there is a concept of fair and just culture. That concept is important to manage the risk. In any organization, errors can happen. But, the best first tool to understand the error is to report it when it happens. Reporting error in healthcare contributes to minimize the risk of recurring.

Based on the patient safety, patient satisfaction, data, and culture of the institution, it is possible to choose different methods of reducing risk in health care settings. Those methods include ancient methods such flow-sheets, Kardex, sticker reminders, checklists. The Electronic Medical Records (EMR) is a new and convenient method to mitigate error in health care settings.

Concept of the article

This article is prospective and it is analytic. It is based on factual approaches obtained from articles and books. It is based on the statistics obtained from data about the medical error in the United States. It addresses the situation of the medical error in Africa. The article will then use the data provided by the World Health Organization; and other scholars' data about the previous and the recent data concerning the medical error. Therefore, it will determine the best ways to mitigate them.

Analysis

Medical errors are a real public health problem worldwide. Since there is a lack of medical error evaluation structures in some countries, the outcome is always catastrophic. In Africa; for example, many countries do not properly report the data. In the Republic of Guinea, there is no official data concerning the medical errors. In those countries, there is no risk for the physicians to lose their licenses because there are no structures to control their errors. In the United States, medical errors are a big concern; the reporting systems of errors are developed. Errors in the United States can cause the physicians the suspension of their licenses and/or the process can result in their revocation.

There are several types of medical errors. Those errors are including, but not limited to: Treating the wrong patient; administering the wrong medicine to the patient; doing surgery on the wrong part of the body; extraction of wrong tooth; forgotten a surgical object inside the body (gauge in abdomen for example); fake doctors in Africa. ALL of those errors are preventable.

In the United States, there is a high rate of medical errors. "In 2010, the Office of Inspector General for the Department of Health and Human Services said that bad hospital care contributed to the deaths of 180,000 patients in Medicare alone in a given year." (Marshall Allen 2013). Marshall Allen in the same article said: "Now comes a study in the current issue of the Journal of Patient Safety that says the numbers may be much higher – between 210,000 and 440,000 patients each year who go to the hospital for care suffer some type of preventable harm that contributes to their death". I

The mentioned statistics were estimated at that time. The encouraging factor to mitigate medical errors in the United States is the fact that the concept is known; and the errors are frequently reported when compared to the situation in Africa. According to Infomedix (2014); "With regards to common errors, reports from the Eastern Cape tell of how medical professionals left surgical sponges or instruments inside patients after surgery. The patients are now suing for damage and compensation. Avoidable medical errors include the 22 HIV-positive women who were involuntarily sterilized in South Africa without their informed consent. The patients later sued the government and were awarded for damage in compensation by a South African Court of Law."²

In concerning the Republic of Guinea, the article did not find any appropriate data about medical errors in the healthcare setting. The country is now released from the Ebola Outbreak which caused "2536 deaths on a total of 3810 for data up to November 01, 2015". Based on aforementioned data; the mortality rate was 66.56%. They should determine the part of medical errors and negligence in that high rate. A detail study will find out the effectiveness of the response used against the deadly disease from the beginning of the outbreak to November 2015.

DISCUSSION

Medical errors happen everywhere in the world. In developed countries, even though the number of deaths due to errors is elevated; however, it is better addressed than what it is in developing countries. In some countries, there is no appropriate data allowing to analyze and to address errors.

In the United States, on who stayed in Liberia, went to the Texas Health Presbyterian Hospital for a fever. He informed the nurse about his travel history. Unfortunately, the patient (Dancan) was sent home after that initial visit. The hospital was criticized. It is possible to affirm that this was a big medical error. The patient died on October 08, 2014. According to Chan Amanda L. (2014); "Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, told CNN that 'It was a mistake. They dropped the ball". ⁴ That example can spark a question about the part of medical errors in the deaths caused by the Ebola infection in Sierra-Leone; Liberia; and Guinea.

Errors can happen in healthcare settings. The problem is not errors themselves, but the issue is when those errors are not recognized and fixed. What are the implications of accepting error as an essential constituent of delivering care? In accepting errors, that would minimize some negative impacts that could happen. Somebody who makes a medical error, if he or she immediately recognizes and accepts it; and then reports it, would not be faced with negative consequences. The Earlier an error is accepted and reported, the quicker the issue would be fixed if it exists. Failure to accept errors could be considered as an ethical misconduct. Therefore, that ethical misconduct should be appropriately addressed.

Accepting and reporting errors are crucial in the healthcare system since those errors can be fixed if they exist. According to Zane Robinson Wolf, Ronda G. Hughes (2008); "Reporting errors is fundamental to error prevention. The focus on medical errors that followed the release of the Institute of Medicine's (IOM) report to Err Is Human: Building a Safer Health System centred on the suggestion that preventable adverse events in hospital were a leading cause of death in the United States. This report emphasized finding from the Harvard Medical Practice Study that found more than 70 percent of errors resulting in adverse events were considered to be secondary to negligence, and more than 90 percent were judged to be preventable". 5

Best ways to mitigate medical errors

I would choose four methods to mitigate errors in health care settings: Just Culture; Electronic Medical Records (EMR) or Electronic Health Records (EHR); Patient and Family Involvement in the Care; Appropriate Training of the Medical Professionals. The meaningful implementation of those methods will considerably reduce medical errors in the healthcare setting.

Just culture

A nurse can; for example, make a mistake by giving an IV injection in IM. He or she should honestly report that mistake. In the 'just culture' concept; instead of blaming directly the nurse, an investigation process will be initiated to determine the real cause of the mistake. The mistake could be attributed to the negligence at any level; it could be attributed to a system failure. Then, the concept will fairly find out where the problem was and therefore, it will appropriately address it.

Because errors are inherent to human nature, blaming or immediate terminating an employee involved in an error is not the right approach. Punitive approach is not effective. Instead, training and educational approach are the best ways to handle adverse event based on the Just Culture concept. "In 1997, John Reason wrote that a Just Culture creates an atmosphere of trust, encouraging and rewarding people for providing essential safety-related information" (American Nurses Association 2010).⁶

About just culture, Joseph Pepe & Peter J. Cataldo said: "The concept of a fair and just culture refers to the way an organization handles safety issues. Humans are fallible; they make mistakes. In a just culture, 'hazardous' human behavior such as staff errors, near-misses and risky actions are identified and discussed openly in hopes of finding ways to improve processes and systems - not to identify and punish the individual". According to same author 2011: "The moral imperative is to deliver the safest health care by taking account of human fallibility and the imperfections of the system".7 The role of punitive sanction is persuasive. It can be implemented. But, it is not always effective. The threat and/or application of punitive sanction as a remedy of human error can sometimes help the system of safety efforts; but not all the time. It can even hurt the system sometimes.

Electronic medical records

Electronic Medical Records is a powerful tool that healthcare workers possess to improve the quality of patient care. It helps with diagnoses. It keeps the patient's medical records; which includes, but not limited to patient's medication, allergies, ROS (Review of Systems), Physical Examination, Assessment, Order, and Treatment. EMR allows tracking the process of the patient care from check in to check out. Meaningful use of EMR or EHR allows improving patient care "Here again, the Institute of Medicine (IOM) did pioneering work, publishing, and subsequently revising a book on computer-based patient records, describing what would afterwards be more commonly referred to as electronic medical records (EMRs) and electronic health records (EHRs) as essential to both private and public sector objectives to transform healthcare delivery, enhance health, reduce costs, and strengthen the nation's productivity" (Michael H. Zaroukian and Peter Basch 2010).8

EMRs or EHRs can help to reduce errors in healthcare settings by their meaningful use as defined by the CMS (Centers for Medicare and Medicaid Services). "A qualify EHR not only keeps a record of a patient's medication or allergies, it also automatically checks for problems whenever a new medication is prescribed and alerts the clinician of potential conflicts. Information gathered by a primary care provider and recorded in an EHR tells a clinician in the emergency department about a patient's life-threatening allergy, and emergency staff can adjust care appropriately, even if the patient is

unconscious. EHRs can expose potential safety problems when they occur, helping providers avoid more serious consequences for patients and leading to better patient outcomes. EHRs can help providers quickly and systematically identify and correct operational problems. In a paper-based setting, identifying such problems is much more difficult, and correcting them can take years".

Patient and family involvement in the care

Patients and families can play an important role in healthcare delivery. Therefore, they must be involved in the process of the healthcare delivery. After every visit, patients and families should receive a copy of their medical records. They must know everything about their medical conditions and their medications. Patients and families must be informed about the benefits and the side effects of the medication taken. That approach contributes to reducing error in healthcare settings. Patients and families should be educated about their medical conditions.

Many studies have shown that patients play an important role in preventing medical errors. "Observational data indicate that patients engage in a range of tasks that identify, prevent, and recover from medical errors in outpatient cancer care. The results of this study point to the importance of considering patients and their work in both the design of patient-care information systems and the structure of clinical-care environments that enable safe and effective health care" (Kenton T. Unruh and Wanda Pratt 2006). As aforementioned, patients must receive an electronic copy of their records, including problem list, medication information, laboratory results, allergies, and procedure information. They must receive the summary of each visit. That approach will help prevent medical errors.

The root cause analysis is very important in healthcare settings. With the three methods aforementioned, the root cause analysis would allow us to determine the real cause of errors, and find out ways to mitigate those errors from happening in the future. Error can happen in healthcare settings. But they must be appropriately addressed. According to the World Health Organization (2005); "The most powerful evidence of harm to patients from health-care systems comes from several retrospective reviews of case records in which clinicians assessed the presence or absence of adverse events instances of harm to patients from health-care management rather than disease". 11

Training

Error is human, it would happen sometimes or frequently in healthcare settings; even though, it is evident that errors will happen in healthcare settings; it is certain that; most the time, error happens in healthcare settings by negligence. Also, it happens from a lack of employees' training, or lack of concentration. As a reminder, most of those errors in healthcare are preventable. Employees in Health Care should be continuously trained on how to avoid errors. Medical ethics and policy must be taught on a regular basis. In Healthcare settings, training and continue of education will definitely help to mitigate medical errors.

CONCLUSION

The healthcare system is not free from total risks. In healthcare activities, there are possible errors, mistakes, near miss and adverse events. All of those negative events are preventable. But, it is clear that errors in healthcare have caused thousands of deaths in the United States and everywhere in the world as aforementioned. Because errors are inherent to human nature, blaming or immediate terminating an employee involved in an error is not the right approach. Punitive approach is not effective. Instead, training and educational approach are the best ways to handle adverse events based on the Just Culture concept.

I believe that Just Culture; Electronic Medical Records; Patient and Family Involvement in the Care; and the Appropriate Medical Professional Training can help to mitigate errors in healthcare settings. The Electronic Medical Records is a powerful tool that healthcare workers possess to improve the quality of patient care. It helps with diagnoses. It keeps the patient's medical records; which includes, but is not limited to patient's medications, allergies, Review of Systems (ROS), Physical Examination, Assessment, Order, Treatment. EMR allows tracking the process of the patient care from check in to check out. Meaningful use of EMR or EHR allows improving patient care. Patients and families can play an important role in healthcare delivery. Therefore, they must be involved in the process of the healthcare delivery.

The four methods aforementioned will help the analysis of the root cause; which would allow us to determine the real cause of errors, and find out the ways to mitigate those errors from happening in the future.

Recommendations

- Encourage the training and the continuing of education of healthcare professionals.
- Encourage the concept of 'Just Culture' to address the problems of errors.
- Avoid the inappropriate blame and ineffective sanctions.
- Involve patients and families in the process of care.
- Encourage and simplify the process of reporting errors by staff members; including the Physicians because healthcare professionals fear to report their errors
- Implement a strong and effective communication in the healthcare settings.

- Implement the EMR or EHR and its meaningful use as defined by the CMS (Centers for Medicare and Medicaid Services).
- Create in healthcare settings of some developing countries like the Republic of Guinea, an independent structure that controls and addresses medical acts.
- Enhance the capabilities of National Medical Boards in healthcare settings of some developing countries like the Republic of Guinea with a possibility of suspension of licenses and revocation in the extreme or recurring cases.
- The healthcare professionals must always Respect the patient safety's guideline established by national and international institutions.

Funding: Not required

Conflict of interest: None declared Ethical approval: Not required

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Cite this article as: Camara ME, Camara N, Camara AY, Traore F. Healthcare settings: the best ways to mitigate errors. Int J Community Med Public Health. 2016;3:380-4.