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Safety and Preventing Errors in Healthcare

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Safety and Preventing Errors in Healthcare

According to World Health Organization (2022), patient safety is a healthcare discipline that emerged with the developing complexity within the healthcare system as well as the resulting increase in patient harm in hospitals. Patient safety intends to curtail and prevent the risks, errors, and harm that surface during the provision of care to patients. The foundation stone of this discipline is the constant enhancement based on learning from errors made by healthcare professionals and adverse events (WHO, 2022). Dispensation of quality care depends on how patient safety is sustained in the hospital or healthcare firm. Undeniably, there is a clear consensus that quality healthcare services worldwide have to be safe, efficacious, and patient-centered. Additionally, the realization of the benefits of quality care is influenced by how efficacious, integrated, equitable, and timely the healthcare services are. The World Health Organization maintain to make sure that patient safety approaches are successfully implemented, there is a need to include skilled healthcare professional, data to drive safety enhancements, leadership capacity, clear policies, and successful inclusion of the patient in their care. Medical errors adversely impact the safety of the patient and therefore their prevention in healthcare is the utmost priority. The rationale of this discourse, therefore, is to discuss patient safety and the prevention of errors in healthcare.

Background to the Problem - The Burden of Harm

Each year, millions of patients tend to suffer injuries or even die as a result of poor-quality or unsafe healthcare. Most of the medical practices and risks ascribed to healthcare are emerging as the primary healthcare challenges for the safety of the patient and significantly contribute to the burden of harm as a result of unsafe care. Some of the patient safety situations that have caused a lot of concern in healthcare have been discussed below:

Firstly, medical errors are the primary cause of avoidable harm and injuries within the healthcare system: across the globe, the cost ascribed to medication errors is appraised to be about 42 billion U.S. dollars yearly. Secondly, healthcare-associated infections happen in 7 and 10 out of every 100 patients that are hospitalized in high-income countries as well as low and middle-income nations in that order (Lawati et al., 2018). Thirdly, unsafe surgical safe procedures lead to complications in 25 percent of the patients. Nearly, 7 million patients that have undergone surgery tend to suffer from substantial complications every year, one million of whom succumb either during or immediately after surgery. Fourthly, unsafe injection practices within the healthcare environment can act as a conduit for the transmission of infections, including hepatitis B and C, and HIV, and also pose a direct danger to healthcare professionals and patients (Lawati et al., 2018). It is important to note that unsafe injection practices are associated with a burden of harm of about 9.2 million years of life that are lost to either disability or death across the globe – also referred to as Disability Adjusted Life Years (DALYs). Fifthly, diagnostic errors happen in more than 5 percent of the adult who receives outpatient care. About 50 percent of these individuals in an outpatient care setting suffer from harm due to diagnostic errors. Research also indicates that many people in the course of their lifetime tend to suffer from diagnostic errors (Lawati et al., 2018).

Sixthly, unsafe transfusion practices have been known to expose patients to the risk of negative transfusion reactions as well as the transmission of infection. Data from adverse transfusion reactions obtained from 21 nations indicate an average incidence of 8.7 serious reactions for every 100, 000 distributed blood components (Mieiro et al., 2019). Seventhly, radiation errors encompass overexposure to radiation as well as instances where a patient or site was wrongly identified. A detailed review of 3 decades of published data regarding the safety

when it comes to radiotherapy appraises that the overall frequency of errors is about 15 for every 10, 000 treatment courses. Eighthly, research shows that sepsis is frequently not diagnosed early enough to save the life of the patient (Mieiro et al., 2019). Since these infections are usually resistant to antibiotics, they can translate into deteriorating clinical conditions, affecting an estimated 31 million individuals across the globe as and causing more than 5 million deaths annually. Lastly, venous thromboembolism (blood clots) is one of the typical and preventable causes of harm to the patient as it leads to hospitalization of about a third of complications (Mieiro et al., 2019). Every year, about 3.9 million cases in developing countries are recorded, and 6 million cases in low and middle-income nations.

Research Questions

- What are the factors that contribute or increase the occurrence of medical errors in healthcare?
- Explain the ways in which medical errors can be prevented in healthcare?
- What are the implications of reducing medical errors in healthcare?

Factors Contributing to or Increasing Medical Errors

Risky Behaviors by Healthcare Professionals

At-risk behaviors can be described as actions that jeopardize the safety of the patient. Healthcare personnel might engage in behaviors that are risky for the reason that the rewards are instantaneous and also the risks for the patient harm appears remote (Di Simone et al., 2018). They might engage in risky behaviors each time they become competent and comfortable with a task and lose the risk perception. Such behaviors at times result in saved time, comfort, and convenience. It is worth noting that the perceived benefit of taking a risky shortcut translate into repeated at-risk conduct, in spite of the possible knowledge of the healthcare provider, on some

level, the safety of the patient could still be at risk (Di Simone et al., 2018). Additionally, as one healthcare professional has evident success, there is a higher prospect of influencing fellow workers till such behavior turns out to be standard practice. Risky behaviors stem from system-based issues within healthcare firms. Some of the most common at-risk behaviors include:

- Taking part in 'grab and go' without the healthcare professional taking time to read the label before its administration, dispensation, or restoking.
- Intimidation or reluctant to seek clarification or help
- Failure of healthcare professionals to educate the patient
- Utilization of medications without adequate know-how of the medication
- Not double-checking the high-alert medication before administration or utilization
- Failure to divulge important communication such as patient allergies, co-morbid conditions or diagnosis, and weight among others

When a patient has been harmed, the healthcare firm at times concentrates on the 'sharp end' of the process of medication use – that is, the nurses that were involved in the art-risk behavior or the event. Nonetheless, punishment grounded on the outcome only when other instances of at-risk behavior by a person or the group tend to go unnoticed is usually ineffective and usually sends a wrong signal to the staff (Di Simone et al., 2018). Risky behaviors stem from system-based issues in the healthcare firm, for example, a corporate culture that has a high tolerance for such behaviors. It is imperative for healthcare managers to conduct a review of organizational behavior on a regular basis. Pointless complexity in the processes gives many chances for the workers to take risks when it comes to the provision of care to the patients (Di Simone et al., 2018). Some of the commendations presented by the National Coordinating Council on Medication Error Reporting and Prevention (NCCMERP) to reduce medication

errors include engaging patients and family units in the process of safe medication dispensation and monitoring and increasing awareness of at-risk behaviors among others.

Understaffing and Sleep Deprivation

Research shows that understaffing has a positive relationship with increased risks of adverse events for the patient, including errors in medication. Additionally, hospitals usually blame understaffing on a nursing shortage, some scholars point out that there are adequate nurses in the United States but the main issue is the lack of budgeting appropriately for the nursing staff that is needed to manage a specific patient load. In one of the studies conducted on hospitals across the globe indicated that a higher nurse-to-patient ratio in the intensive care units leads to low patient deaths. Another study found that an increase of one patient in the workload handled by frontline healthcare workers aggravated the risk of death for a patient by 7 percent. In some of the states in the U.S., minimum staffing ratios have been proposed but there has been stiff resistance to the same.

Nevertheless, in 2004, California ratified such a law and has registered improvements when it comes to inpatient adverse events. In one of the researches on hospitals within the U.S., it was found that hospitals that a higher staffing ratio have a 25 percent less likelihood of being penalized under the ACA rules when it comes to excessive readmission as compared to the ones with a lower staffing ratio (Hammoudi et al., 2018). A related study documented that every additional patient per nurse increased the rates of readmission from 6 percent to 9 percent. An interesting side benefit is that occupational injuries for frontline healthcare workers tend to decline when there is an increase in nurse-to-patient ratios. Research also indicates that labor shortages will double the rate of medication errors among healthcare providers. According to Forrester's analysis, rapid turnover among clinicians coupled with burnout will lead to

‘irreversible patient implications’ like adverse drug reactions because of medication errors and flaws in administration (Hammoudi et al., 2018). In turn, the risk of falling ill and mortality will increase significantly among the patients.

Sleep deprivation is another important factor that affects healthcare professionals and though it is an issue on its own, there are various things that cause a healthcare worker to be deprived of sleep. It can be correlated to staffing problems if a healthcare worker is requested or even required to work overtime or extra shifts and is not able to get enough sleep (Hammoudi et al., 2018). Many studies have proven that sleep deprivation can adversely impact executive-level function as well as mood and also exacerbate irritability, which can adversely impact the functionality of the team in the healthcare environment leading to burnout. A Kronos Inc. survey that was done in 2013 found that 67 percent have almost made an error at night as a result of work fatigue whereas 25 percent admitted that has already made an error because of fatigue (Hammoudi et al., 2018). Other findings include a significant number of nurses that reported unsatisfactory or inadequate staffing levels, fatigue at the commencement and end of the shift, disregard of the rest periods by the hospital, the failure of the hospital to manage issues related to the shift, as well as issues with schedules (Hammoudi et al., 2018).

Environmental Factors

The setting within which healthcare workers tend to practice contributes to medical errors. Research indicates that healthcare professionals were nearly 3 times to report a frantic working milieu in the first 30 minutes prior to an error as compared to the rest of the error shift. Additionally, healthcare workers were nearly twice likely to report a more hectic setting in the workplace when it comes to making a comparison between the error shift to the previous shift (AHRQ, 2022). Another important observation was that healthcare professionals have a higher

prospect of about 4 times in reporting a hectic working milieu when comparing the first 30 minutes before an error takes place to the previous shift he or she worked. The working environment and the design of items in that setting can increase the chances of medication errors taking place. For example, the AHRQ cited research that examined the design of the computerized physician order entry (CPOE) interface that needed approximately 10 clicks for every order, thus substantially aggravating the time required for entering orders (AHRQ, 2022). It is found that the poor usability of the CPOE and lack of incorporating clinician workflow contributes to delays in patient care which increased the mortality rate after the implementation of the CPOE. Product and medication packaging can also look the same way and result in errors when it comes to selecting the right item (AHRQ, 2022). The way medical devices are designed, even the drawers of the medication carts, can influence the occurrence of medication errors - both positively and negatively. In one particular instance, a redesigned drawer led to fewer wasteful actions as well as shorter medication retrieval times.

Communication Problems and Inadequate Flow of Information

Communication breakdown significantly leads to medical errors. Whether written or verbal, these issues can surface in a healthcare system or medical practice and can also take place between a nurse, patient, physician, and healthcare team member (Rodziewicz, Houseman & Hipskind, 2022). There is no doubt that poor communication will lead to medical errors. The flow of information in a healthcare environment is also critical, in particular in various service areas. Lack of sufficient flow of information takes place when the required information does not follow the patient when he or she is transferred to another facility or happens to be discharged from one component to the other (Rodziewicz, Houseman & Hipskind, 2022). Some of the common problems attributed to inadequate information flow include lack of proper

communication of the test results, lack of critical information when needed to influence decisions about prescribing, and poor coordination of the medication orders for the transfer of care.

Preventing Medical Errors

Making the Safety of The Patient and Staff a Top Priority

The culture of a healthcare organization is a key determinant of safety. Culture in this case refers to the overall behavior of the staff and leaders in a healthcare firm. According to Segel and Toussaint (2022), a top-down management approach that does not allow the members of the team in the hospital to speak up about the issues they are going through leads to poor safety outcomes. In contrast, when the nurses have the confidence to 'stop the line' for an issue revolving around safety, for instance, such as calling out a problem in the course of surgery and management happens to support them with a strong and unrelenting response that is centered on problem resolution, the outcome is a safer place for the patients (Segel & Toussaint, 2022). Consequently, executive leaders and the board of the hospital are supposed to make safety a priority. The management systems are also supposed to support the daily enhancement of the safety practices that establish changes in operations as well as reinforcement of a safety culture. This has to integrate real-time wide-sharing of problems and resolutions. Leaders in the healthcare industry who deals with safety performance such as Intermountain Healthcare and Cleveland Clinic utilize strong daily enhancement practices directly tied to operations that are centered on safety improvement (Segel & Toussaint, 2022).

Establishment of a National Safety Organization

In the 1970s, the airline industry was regularly crashing planes and this made the U.S. Federal government step in and establish a National Transportation Safety Board (NTSB) and also encourage the creation of a CAST real-time learning system (Segel & Toussaint, 2022). The

professional safety team examined each of the accidents – an evaluation that inculcates a review of the culture and safety system – and then made a recommendation regarding the measures for preventing future events. It is worth noting that the NTSB constantly updates the standards of safety based on new learning across the airline sector (Rodziewicz, Houseman & Hipskind, 2022). Additionally, the transportation sector has expanded to respect the expert opinion of the team as well as the implementation of most of the commendations. It is the belief of every individual that the establishment of the National Patient Safety Board (NPSB) -which has been proposed by a wide coalition of benefactors – would equally be a game-changer in the healthcare industry. Of course, the role of the NPSB would not be to regulate but instead, it would function as a facilitator when it comes to changing the safety practices in hospitals (Rodziewicz, Houseman & Hipskind, 2022). Its standard in improvement processes and specific practices would consider social determinants of health, demographics, nature of the services, and other factors.

When a safety issue is reported by a hospital, the outside of the NPSB team would assess and commend changes in the healthcare system practices and the culture in question. The team would of course be composed of highly trained professionals in healthcare safety practices (Rodziewicz, Houseman & Hipskind, 2022). The NPSB is supposed to be a partner with healthcare systems, not regulating enemies as well as existing bodies, like the CMS, but has to make sure that the CEO of the provider organization in question has the staff implement the commendations. To encourage the care providers to prevent errors or accidents from taking place in the first place as well as enhance the capacity to forecast issues, the NPSB has to support the establishment of public-private constant learning systems whereby the major players within healthcare enthusiastically take part (Rodziewicz, Houseman & Hipskind, 2022).

Create a National Reporting Mechanism

It has to be robust and support real-time reporting of incidents. A healthcare leader has to take advantage of the electronic health records data to both surface and track incidents related to safety. A sophisticated electronic health record system enables easy capture and automatic upload of measures like the expected versus actual mortalities, hospital-associated infections like pressure ulcers, infections, wrong-sided surgeries, pressure ulcers, as well as staff injuries (Rodziewicz et al., 2022). The advent of advanced information system tends to make it possible for the surgery centers, hospitals, and clinics to see the results of the patients within a matter of hours or minutes. It is important to note that a national database stores information, which healthcare team members and patients could access on demand. We presume that timely data could inspire teams to concentrate on instantaneous enhancement of healthcare system (Rodziewicz et al., 2022). Existing CMS initiatives only display data that one-month old. Such as backdated quality reporting from the CMS as well as other healthcare firm has not significantly reduced the variation in the clinical outcome – however, the described system would. Through pinpointing of the hospitals with a poor healthcare record, such as the ones with a higher mortality of more than five times their peers' and inspiring teams, the system advocated in this case can greatly enhance safety in healthcare (Rodziewicz et al., 2022).

Turn on EHR's machine-learning systems.

The systems that turn risky conditions which could give rise to errors or accidents so the caregivers can intervene and avert any harm, are entrenched in most of the electronic healthcare record systems but are not operating. The executive teams are supposed to use this software to fathom the extent of harm that occur in the hospital (Rodziewicz et al., 2022). There has been an epidemic problem of poor safety within the healthcare system. When there are no meaningful

national changes, there is no way the epidemic will just cure itself. As happened in the aviation, we have to shift from an ineffective reactive to a proactive and then predictive via taking the linked steps that have been proposed (Rodziewicz et al., 2022). We are not supposed to punish when a harm to the patient surfaces but rather establish systems that support the enhancement of safety and eventually tackle completely the safety issue that is plaguing the hospitals in the United States.

Evidence-Based Interventions

Good teamwork is necessary in making sure that a patient is treated in a safe manner. Provision of care to the patient can be equated to a team sport. This means that it is not just the surgeon or physician makes a different in the quality of care a patient receives, but the staff, healthcare workers, and administrators working as a team in each level of the healthcare system with the intent of promoting the right outcomes for the patients (Zajac et al., 2021). If there is no collegiality, research indicate that everything can go wrong with the patient. For instance, the patient can get the wrong type of medication or dosage, develop a life-threatening infection from a contaminated equipment, or even get treated for the wrong condition. Effectual teamwork comprises six important components namely: coordination, cooperation, shared view of the situation of the patient, mechanisms for problem resolution, good communication protocols, and good leaders that encourage, promote, and foster teamwork (Zajac et al., 2021).

Researchers have successfully integrated these and other similar factors into an array of training protocols, including the widely known TeamSTEPPS which is presently utilized in approximately 70 percent of the hospital (Zajac et al., 2021). It utilizes evidence-based instruments that promote good communication and collaboration for safeguarding the safety of the patient. Some of the examples are call-outs and check-backs. The call-outs refer to a closed-

loop approach whereby the members of a team apply a question-and-answer format to relay critical information concerning important aspects of patient care. On the other hand, check-backs are a similar form of communication that ensures that the receiver fathoms the information relayed in the manner in which the sender expected it (Zajac et al., 2021). In general, these type of training programs have led to a reduction of medical errors in the hospitals by about 20 percent. Another approach defined in the TeamSTEPPS revolves around the establishment of good handoffs protocols. Handoffs – when a particular set of healthcare providers tend to pass the care of the patient to another set, they are ripe for errors to the point of the being branded a national patient-safety enhancement priority. It currently demands the residency programs to provide formal instructions when it comes to doing them in a proper manner (Zajac et al., 2021). Research shows that training in the handoff protocols translate into substantial decline in poor patient outcomes and medical errors.

Further, other psychologists are developing ways of tackling specific medical problems one of them being the surgical site infection that has been known to afflict more than 157, 000 patients in the United States annually. They are also the most prevalent forms of hospital-acquired infection (Zajac et al., 2021). Researchers have come up with a team safety intervention which involves five steps and is meant to reduce infections in the ICU environment to the surgical setting. The original protocol utilizes approaches like pinpointing the team leaders, educating the team on safety, identification and learning from the problems, as well as utilization of feedback and checklists to make sure that the members are safely inserting, removing, or monitoring the central-line catheters (Zajac et al., 2021). The dissimilarities between the two medical environs demands an implementation of a special protocol. Even though intensive care unit is considerably contained and utilizes the same staff for each of the patients, the surgical

process encompasses multiple providers in various environments, which ramps up chances of making mistakes. The key aspect of this intervention is promoting groups' involvement which meets on a monthly basis to discuss what they have learned and addressing issues that are unique to their environment (Zajac et al., 2021).

The Five Rights

If there is satisfactory system that is set up to help the healthcare workers substantiate the five rights, there is now way to avoid medical errors from taking place. There are several factors that can make the medical team fail to substantiate their rights: badly designed medical devices, handwritten orders, inadequate staffing patterns, trailing zeroes, and similar-looking or similar-sounding drugs (Saljoughian, 2020). When medication orders are misrepresented due to an ambiguous writing, it leads to a 10-fold dosing error. Other factors include lack of an effectual independent double-check system for high-alert drugs and ambiguous drug labels. For instance, the frontline healthcare worker administer medication just after confirming the identity of the patient through a verification of two special identifiers that are assigned upon admission into the facility (Saljoughian, 2020). Frontline healthcare workers cannot substantiate that a particular tablet is the right drug or the dosage is correct. Nonetheless, they are accountable when it comes to the use of bar-code technology, reading the label, asking for an independent double-check when needed, as well as questioning dosages or medication orders that appear unsafe or illegible.

The aforementioned procedures have been regarded by the facilities as enough to confirm the preciseness of the dosage or drug. Hence, the healthcare expert's duty is not so much to attain the five rights than to follow the procedures of the hospital and produce positive patient outcomes (Saljoughian, 2020). In case an issue with the system hampers adherence to the procedure, he or she must report it to ensure that it is addressed. It can be said that if people are

held accountable for attaining the five rights, they are supposed to have the independence in the development of their own methodologies for doing so. In other words, individual healthcare workers are not supposed to be punished because of a situation or an event that happens and beyond their control (Saljoughian, 2020). Nevertheless, since facilities mainly establish the necessary procedures for achieving the five rights as well as balance them against competing legal, administrative, or financial services, members of staff have to follow an established procedure and should not be held accountable individually. It is worth noting that the five rights are supposed to be adhered to as medication-use goals (Saljoughian, 2020). But, there is need to establish safe practices to help the healthcare professionals achieve such goals and pharmacists can help in this.

Implications of Preventing Medical Errors in Healthcare Practice

Detection of medical errors via an effective reporting system and active management discloses the medical errors and promotes safe practices (Salar, Kiani & Rezaee, 2020). Preventing medication errors reduces the morbidity and mortality cases in the hospitals. They also maintain the reputation of the healthcare facility and save the latter vast amount of money which would have otherwise been used in managing the effects of the errors.

Conclusion

In a nutshell, medical errors pose a serious public health problem and are also the leading cause of death in the U.S. It can be quite challenging to uncover a constant cause of errors, and even when found, provision of a consistent viable resolution reduces the prospect of recurrent event. Through recognition of untoward events occurrence, learning from them, as well as working towards preventing them, there is a greater chance of enhancing the safety of the patient. Some of the solution to preventing medical errors include creation of a national safety

organization, making the safety of the patient and staff a top priority, and implementing evidence-based interventions such as promoting teamwork in the workplace. It is also important to be wary of the factors that contribute to the errors in healthcare as they are critical to the developed solutions. They include understaffing and sleep deprivation, and risky behaviors by healthcare professionals among others.

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