ROLE OF HEALTHCARE ADMINISTRATION AND PHARMACIST IN IMPROVING PATIENT MEDICATION SAFETY

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Abstract:
When it comes to the delivery of medical treatment, medication safety is a vital component of patient assurance. The provision of solutions that effectively reduce adverse drug events and medication errors in hospitals has garnered prominence on a global scale.The purpose of this work was to conduct a literature analysis on the many interventions that have been implemented in hospitals to ensure the safety of medication to patients, as well as to examine the fundamental role that healthcare administrators and pharmacists play in enhancing medication safety. Despite the fact that studies have shown evidence for individual interventions, there remain doubts over the amount to which medical administrators and pharmacists are effective. Consequently, this has ramifications for policy makers and physicians, who should employ a diverse approach in order to ensure the safety of medication in their respective facilities.

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Introduction:

Pharmacy leadership is essential for a successful medication safety program. Pharmacy leaders can have a significant impact on enhancing performance. They can be ingrained in the DNA of the senior leadership team due to their extensive impact and perspective that extends beyond the pharmacy's confines. Pharmacy leadership structures and systems prioritize a multidisciplinary approach and efficient operations to promote safe drug usage across the enterprise. Adverse drug events (ADEs) are currently at a catastrophic level, persistently causing substantial harm and fatalities to patients [1]. The growing recognition of Adverse Drug Events (ADEs), insufficient care coordination between healthcare providers, and progress in health information technologies have led to demands for an expanded responsibility for pharmacists in order to guarantee optimal drug utilization and patient safety. Pharmacists may need to adjust their perspectives on their position, responsibilities, and contributions to the drug management process to fulfill this expanded function. Moreover, it is important to acknowledge pharmacists as healthcare professionals for the purposes of practicing responsibility and billing [2].

Senior administrative management and governance leaders need to acknowledge the important role pharmacists can have in minimizing patient safety risks, improving medication management systems, and aligning pharmacy services with national quality performance standards. Effective leadership is highly contagious. Governance, administrative, and medical leadership must prioritize placing pharmacy leaders in a more prominent position. If pharmacy leaders actively participate in improving the organization's performance, it will generate entrepreneurial energy that will positively impact the entire pharmacy workforce, leading to a safer care environment for all patients [3].

Hospital leadership must guarantee that pharmacists play a prominent role in medication control initiatives as drug spending increases at double-digit rates for hospital costs. Pharmacy leaders should be part of the organization's leadership teams and participate in crucial system decisions. Adequate resources should be allocated to support the comprehensive pharmacy structure and system due to the human strain of maintaining this sophisticated integrated system. Several studies have discovered multiple ways to enhance pharmaceutical safety. Pharmacists play a crucial role in optimizing the safe, effective, and efficient utilization of medications [4]. A study demonstrated that pharmacy practice has the tendency to enhance patient outcomes, lower rates of adverse events and mortality, and sustain value in the long term. The recommendation is to assign pharmacists to high-risk regions in the pharmaceutical use system to minimize the potential harm from medications, as suggested by hospital pharmacy directors and clinical coordinators. Pharmacists' training equips them with the abilities and expertise to identify and/or avert drug errors and minimize their impact on patients [5].

Review:

It is possible that the possibilities and capabilities of health care workers for looking for and critically analyzing drug information are limited, despite the fact that drug information is easily accessible. The process of locating the most compelling evidence and transforming the findings into information that was clinically significant and applicable to a particular patient was particularly challenging. Identifying and evaluating scientific literature is the major job of the Drug Information Center (DIC), which is responsible for providing answers to inquiries on drugs that are posed by healthcare professionals. The DIC then applies these findings to specific clinical circumstances and discusses potential solutions with the Enquirer [6]. The Drug Information Centers (DIC) are operational units that give scientific information regarding pharmaceuticals in a timely way, as stated by the Pan American Health Organization (PAHO). Historically speaking, the first drug information center in Saudi Arabia opened its doors in 1978 at the college of pharmacy of King Saud University [7]. 1980 marked the beginning of operations for the drug and poison information center (DPIC) at King Khalid University Hospital (KKUH). As a component of clinical pharmacy services, the first Department of Public Health Center (DPIC) of the Ministry of Health was founded in 1989 at Riyadh Central Hospital. Answering queries, teaching healthcare professionals through educational presentations, and printing a pharmacy bulletin that is published on a monthly basis across all hospitals under the Ministry of Health are some of the responsibilities that fall under the purview of the center. A prior study that was carried out in Saudi Arabia discovered that the resources that were utilized the most frequently to provide answers to concerns concerning drugs were Drugdex, Textbooks, Iowa Drug Information Services (IDIS), PubMed, and Poisondex sources. There was a very wide range of time that was spent on the service, from five minutes to weeks [7]. During the

course of one year, the DPIC received a total of 139 questions, according to the findings of another study that was carried out in King Saud Medical City. It was pharmacists that made the majority of the questions (61.2%), followed by physicians (23.7%), and finally nurses (10.10%).

The term "medication errors" refers to any event that could have been avoided and that results in the incorrect use of pharmaceuticals or the harming of a patient [8]. It is possible that these occurrences are connected to professional practice, health care goods, procedures, and systems. These may include prescribing, order communication, product labeling, packing, nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use. There is a direct correlation between medication errors and mortality and morbidity, which is why the World Health Organization (WHO) has designated medication errors as a focus area to improve patient safety [8].

Although the concept that there is a risk associated with the administration of pharmaceuticals is not new and has been the subject of a great deal of attention, the vast majority of that attention has been focused on the events that are inherent to the administration of drugs, such as the adverse effects of drugs. In recent years, there has been a growing awareness of the importance of extrinsic drug events, such as those that occur as a consequence of prescription errors. A helpful classification of medication errors has been developed as a result of the separation that has taken place between these various categories of adverse drug events (ADEs). An adverse drug reaction (ADE) is described as "any unpleasant medical occurrence that may arise during therapy with a pharmacological product but which does not always have a direct relationship with this treatment." When comparing studies in the field of drug safety, it is helpful to have a classification of medication mistakes that is widely acknowledged and utilized. This classification was developed by the National Coordinating Council for drug Error Reporting and Prevention [9].
The quantification and qualification of pharmaceutical errors can be accomplished through a variety of methods. Individual events are typically investigated by faults or near accidents (FONA) committees at hospitals, which are responsible for recording and analyzing spontaneously reported medical errors. These committees also reconstruct the reasons of the incidents and provide recommendations on preventative measures to reduce the likelihood of similar incidents occurring in the future. On the other hand, such reactive tactics come with a number of undesirable consequences. The fact that incident reports are a sluggish and unsystematic source of information is a significant disadvantage. This is especially troublesome in disciplines that are constantly evolving, such as modern medicine, where the pace of change is very rapid. Furthermore, spontaneous reporting systems are extremely dependent on the willingness of individuals to record their own flaws and near misses as well as those of others, which can result in biased reporting. When it comes to systemic under-reporting, for instance, particularly from physicians, and of near misses (as opposed to mistakes), there is a significant problem. Lastly, the analytical process that is carried out by the FONA committee necessitates an advanced and comprehensive understanding of the processes that have the potential to result in errors. Even with this information, it can be challenging to anticipate, through the utilization of a theoretical process analysis, the locations and methods by which failures may take place. The current medical system is an example of a complex socio-technical system, and there are numerous ways in which potentially catastrophic results can arise [10].

The interventions that are intended to increase safety are readily apparent; nevertheless, there are typically problems associated with the cost involved, sustainability, staff acceptability, and other concerns that arise during implementation. It has been discovered that computerized physician order entry (CPOE) is really helpful; yet, there are unintended repercussions that are widespread and significant for people who are educated about CPOE in hospitals. Discrepancies in the administration of medications are likely to continue even after the implementation of computerized physician order entry (CPOE) and barcoded medication administration [10]. For developing and transitional nations, the costs of purchasing and maintaining a computerized physician order entry (CPOE) system and other computer-based systems are typically prohibitive because to their high cost, which can reach into the millions of dollars. In addition, these computer systems necessitate significant behavioral adjustments, not only on the part of medical professionals but also on the part of the entire health care organization. As a result, many establishments have removed their systems from practice after receiving nearly unanimous opposition from the medical staff. It has also been noted that the utilization of clinical pharmacists to consistently engage in ward rounds is a labor-intensive practice. It will be necessary for hospitals to increase their expenditures in order to acquire and train pharmacists who have advanced

knowledge of pharmacotherapeutics [11].

Conclusion:

On the basis of the review, it has been proven that there is substantial evidence indicating that treatments are successful in lowering the number of adverse drug events and prescription errors. On the other hand, there are still a few research that do not exhibit sufficient data to back up this statement. Despite the fact that the data supporting each of these tactics has been examined separately, it is essential to employ a comprehensive approach that incorporates a number of these strategies, as well as the role of medical administrators in conjunction with the pharmacist, in order to enhance the safety of medication. It is vital to rationalize the differences in methodology and reporting that exist between research in order to accomplish the goal of making future studies more comparable.

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