



VIEW OF POINT IN HEALTHCARE ADMINISTRATION WITH CLINICAL LABORATORY-NURSES IN IMPROVING QUALITY OF CARE

Abdulatif Metaab Saif Almutairi^{1*}, Mishari Abdulrahman Almutairi², Khalid Mubarak Salem Alqahtani³, Radi Homeed Mohamad Albeshri⁴, Yasser Muqbil Blaihed Alharbi⁵, Khalid Ojab Alhumaidi Alsubaie⁶, Ahmad Muhanna .H. Alkhatabi⁷, Bandar Jamaan Alharbi⁸, Fahad Mohammed Alsehli⁹, Faizah Khatm Alzhrani¹⁰, Saleh Ali Aldohaiman¹¹, Rowena Deliva Lopez¹², Fahad Mohammed Al Arafah¹³

Abstract:

In order to enhance the quality of care provided to patients and to ensure their safety, quality management systems (QMS) are increasingly being adopted in healthcare settings. This study is to investigate the deployment of quality management systems (QMS) in nursing, radiology, and laboratory departments, as well as the influence these systems have on patient care and safety. The adoption of quality management systems (QMS) in the laboratory include the creation of quality control measures, standard operating procedures, and constant monitoring of operations in order to guarantee the correctness and dependability of test findings. Nursing is at the forefront of patient care, and the deployment of quality management systems (QMS) in nursing departments focuses on standardizing care procedures, enhancing communication and cooperation across healthcare teams, and guaranteeing patient safety via the utilization of methods that are supported by evidence. In addition, the introduction of quality management systems (QMS) is beneficial to radiology departments since it assists in the standardization of imaging techniques, ensures the maintenance and calibration of equipment, and assists in improving the accuracy and timeliness of diagnostic results. It is important to note that the deployment of QMS has a substantial influence on patient care and safety. A number of studies have demonstrated that healthcare organizations that have a solid quality management system (QMS) in place have lower rates of medical mistakes, less problems for patients, and better results for patients. Through the reduction of waste, the enhancement of efficiency, and the reduction of the requirement for rework, the deployment of a quality management system (QMS) can also result in cost savings.

¹Senior Nurse Specialist, Al Ahsa, Psychiatric And Mental Hospital

²Maternity And Children's Hospital In Al-Kharj, Specialist Laboratory

³Maternity And Children's Hospital In Al-Kharj, Laboratory Specialist

⁴Osfan Health Center, Health Center Manager Specialist

⁵Al Hamima Health Center, Health Center Manager Specialist

⁶Imam Abdulrahman Al Faisal Hospital, Laboratory Specialist

⁷King Abdulaziz Hospital In Makkah, Health Services Manage. & Hospt

⁸King Abdulaziz Hospital Makkah, Nursing Technician

⁹Nursing Technician, King Abdulaziz Hospital Makkah

¹⁰Health Services Administration, King Fahad General Hospital

¹¹Al-Ahsa Cluster, Nursing Technician

¹²Al-Ahsa Cluster, Nursing Technician

¹³Nursing Specialist And Health Administration, Al-Ahsa Cluster

***Corresponding Author:** - Abdulatif Metaab Saif Almutairi

*Senior Nurse Specialist, Al Ahsa, Psychiatric And Mental Hospital

DOI: 10.53555/ecb/2022.11.7.44

Introduction:

The purpose of the healthcare system is to provide the highest possible level of treatment to a patient by means of a skilled medical practitioner in an atmosphere that is appropriate for that particular individual. To put it another way, the patient ought to be provided with the best possible quality of treatment, which is decided by evidence-based medicine, by a particular physician who possesses the required level of knowledge. The provision of this care need to take place in an environment that is both effective and reduces the likelihood of resources being misutilized. Additionally, the patient should be treated with respect and given the chance to participate in the development of their care plan in accordance with their own preferences. Safety, effectiveness, patient-centeredness, timeliness, efficiency, and equality are the six qualities that have been identified by the Institute of Medicine (IOM) as being essential for obtaining a high level of quality in healthcare [1].

The administration of hospitals is an essential component of the healthcare system, and it is the foundation upon which healthcare facilities all over the globe are built. When it comes to ensuring that healthcare services are provided in an efficient manner, the administration and organization of hospitals are essential components. Administrative staff in hospitals are responsible for overseeing a variety of elements of hospital operations, including but not limited to financial management, resource allocation, quality improvement, and patient safety [2]. The discipline of hospital administration has seen substantial development throughout the course of time, successfully adjusting to the ever-shifting dynamics of the healthcare business. Functions related to administration and logistics have always been the primary emphasis of this organization. In spite of this, it has lately broadened its scope to include a wider range of tasks, such as providing treatment that is centered on the patient, making decisions based on data, and strategic planning [3].

The provision of high-quality medical treatment that leads to favorable outcomes for patients should necessarily be the main objective of any healthcare system. Patient outcomes are a measurement of the efficiency and efficacy of the interventions and services provided by healthcare providers. The prevention of adverse events that are particular to the patient's therapy or condition is one of the most important outcomes [4]. These outcomes comprise a wide variety of characteristics, including the patient's general health, satisfaction with care, recovery, and, most importantly, those aspects.

Improving the outcomes for patients is not only a moral necessity but also an essential component of evaluating the quality of healthcare and the performance of hospitals. Hospitals and other healthcare institutions are always attempting to improve patient outcomes because they are aware that these results are inextricably linked to the reputation and success of the institution, as well as the health and happiness of the community that the institution serves [2].

Total quality management, often known as TQM, is a management strategy that places an emphasis on attaining high levels of quality in all elements of an organization's activities inside the company. The Total Quality Management (TQM) strategy is an all-encompassing method that incorporates all systems and employees, with the objective of continually improving quality, reducing expenditures, and enhancing customer service. Researchers conducted a meta-analysis in order to determine the significant elements that contribute to the success of total quality management (TQM) in the healthcare industry. This was done in order to determine the essential components of TQM in the healthcare sector. This list covered leadership, employee involvement, training, process management, support from senior management, and planning [4]. These are the criteria that were included in this list.

Review:

Overseeing the execution of system designs, rules, and procedures that attempt to reduce or eliminate damage while simultaneously maximizing patient care and results is an essential part of quality management in the healthcare industry [5]. The basic objective of quality management is to ensure that the stated purpose of a particular product, service, or organization is consistently fulfilled. This is the focus of quality management. In order to do this, there is a continual collection of data and alterations incorporated into the process in order to offer an ideal product or service that accomplishes its objective and satisfies the requirements of the consumer. It is necessary to collect further data in order to confirm that no more alterations are required. To efficiently apply quality management strategies and to simplify, standardize, and improve processes associated to a product or service with the goal of fulfilling customer demands and expectations [5,6], quality management systems (QMS) are deployed as instruments. The system is able to identify challenges and make use of evidence-based medicine and resources in order to build or alter processes in order to improve the

quality of treatment. This is accomplished through the process of data collection. A further step involves the collection of data on the unique findings in order to determine if the alterations were successful or whether more adjustments were required. In addition to exceeding the criteria established by the Institute of Medicine in the areas of safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity in healthcare, the primary objective is to achieve a consistent and superior standard of treatment with a minimal increase in the occurrence of illness, death, ailment, and distress, as well as with high levels of patient contentment.

The evidence that all six IOM areas are present is made abundantly evident by the application of the definition of quality and quality management to a case situation. A trauma hospital is a facility that offers a service that entails the safe and efficient examination and stabilization of a patient who has sustained a catastrophic injury. Regardless of the gravity of the traumatic event, it is of the utmost importance that the patient's confidentiality and treatment goals be given the highest priority in all undertakings. After the patient has been admitted to the hospital, quality management teams conduct an analysis of data, which includes adverse events, patient outcomes, and experience (also known as the "five D's"), with the goal of improving future care and putting into action any required improvements and suggestions [7].

In the context of laboratories, quality is typically understood to refer to the precision, dependability, and promptness with which test findings are provided. In order to be reliable, the laboratory results must be comprehensive and include all aspects of the experiment. In a clinical or public health environment, operations should be dependable and efficient, and they should provide coverage that saves time, which is both helpful and advantageous [7].

It is absolutely necessary to carry out each and every process and operation that is going to take place within the laboratory in order to reach the greatest possible level of accuracy and accountability. should be completed with the highest possible level of expertise. A significant number of people are involved in the laboratory, which is a complicated system that consists of various operations that occur in sequential order. It is necessary to finish a great deal of processes in order to fulfill the quality system. When it comes to the effective functioning of a smart lab, the QSM model, which includes the entire system, is absolutely necessary [5].

The nursing practice is an essential component of patient care, and the deployment of quality management systems (QMS) has been increasingly acknowledged as a technique to optimize nursing practice and increase patient safety among healthcare providers. In the field of nursing, quality management systems (QMS) refer to the process of establishing standardized processes, protocols, and procedures in order to guarantee the delivery of high-quality care. This comprises the creation of nursing guidelines that are supported by evidence, the implementation of programs for continuous quality improvement, and the utilization of performance measures for the purpose of monitoring and evaluating nursing outcomes. In addition, the Quality Management System (QMS) places an emphasis on the significance of good communication, cooperation across disciplines, and care that is centered on the patient in order to improve the overall quality of nursing practice [8].

The application of quality management systems (QMS) in nursing practice has a substantial influence on the safety of patients. By standardizing care processes and standards, quality management systems (QMS) contribute to a reduction in the likelihood of adverse events, patient problems, and medical mistakes. Additionally, quality management systems provide an emphasis on the utilization of best practices, evidence-based treatment, and continual education and training for nursing staff. This can result in improved patient outcomes and a reduction in the number of infections that are linked with healthcare administration. Another benefit of quality management systems is that they encourage a culture of safety by motivating nurses to report and resolve possible safety problems, which ultimately results in a safer environment for patients to receive medical treatment [8].

Including quality management systems (QMS) in nursing care has a number of advantages, not only for patients but also for healthcare organizations. A quality management system (QMS) has the potential to result in increased patient satisfaction, less variability in care delivery, and better nurse efficiency. In addition, quality management systems (QMS) facilitate the detection and reduction of possible hazards in nursing practice, which ultimately leads to a healthcare system that is both safer and more dependable. In addition to enabling nurses to adapt to changing healthcare demands, adopt interventions that are supported by evidence, and provide care that is centered on the

patient, quality management systems (QMS) also focus on continual quality improvement [9].

In order to ensure the reliability of the healthcare system, the clinical laboratory is essential. This is due to the fact that the clinical laboratory reports are the primary basis for all clinical decisions that are made by physicians about patients. Due to the fact that clinical laboratory reports are responsible for about 70–75% of all medical diagnoses, the quality of laboratory services has a direct influence on the quality of healthcare. The results of the laboratory should be as accurate as possible, and at the same time, all laboratory activities should be dependable, with prompt reporting resulting in a clinical environment that is advantageous. During laboratory operations, such as processing, evaluating, and reporting, negligence can result in serious repercussions. These implications can include problems, a lack of sufficient treatment, and a delay in right and timely diagnosis, which can lead to unneeded treatment and diagnostic tests. A clinical laboratory is a complicated collection of cultures that consists of a number of activity phases, and a large number of individuals contribute to making it distinctive and flavorful. In the context of a testing procedure, the term "path of the workflow" refers to the full collection of these intricate processes that take place. The patient is the starting point for the workflow route in a clinical laboratory, which concludes with the reporting of the results and the comprehension of those data. It is reasonable to assume that errors will occur during this procedure in any clinical laboratory environment. This is because of the high volume of samples, the restricted number of staff members, and the several processes that are involved in the testing process [10].

Conclusion:

In both short-term and long-term care settings, it is the responsibility of the nurses to ensure the safety of the patients and to prevent any harm from occurring while they are providing care. By evaluating the patient, planning for treatment, monitoring and surveillance activities, double-checking, giving support, and interacting with other healthcare professionals, nurses are required to adhere to organizational methods for recognizing harms and risks. This is accomplished through the process of assessing the patient. In addition to having clear policies, having leadership, having safety initiatives that are driven by research, having training for healthcare staff, and having patients participate, it is necessary for nurses to adhere to the principles of patient safety in order for

interventions to be successful in preventing practice errors and for healthcare systems to be sustainable and safer. Nursing staff's adherence to patient safety standards was affected by a number of factors, including the engagement of patients, the knowledge and attitudes of healthcare professionals, the collaboration of nurses, the utilization of suitable equipment and electronic systems, education and consistent feedback, and the standardization of the care process. Due to the fact that both individual and systemic factors have an impact on the degree to which patient safety standards are adhered to, the discovery of these elements has consequences for nursing care practice.

References:

1. Emanuel L., Berwick D., Conway J., Combes J., Hatlie M., Leape L., Reason P., Schyve P., Vincent C., Walton M. *Advances in Patient Safety: New Directions and Alternative Approaches*. Agency for Healthcare Research and Quality; Rockville, MD, USA: 2008. What Exactly is Patient Safety.
2. 7. Sibal A., Uberoi R.S., Malani A. An approach to improve patient safety and quality beyond accreditation. *World Hosp. Health Serv.* 2016;**52**:10–12.
3. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Kruk ME, Gage AD, Arsenault C, et al. *Lancet Glob Health.* 2018;**6**:0–252.
4. Digital transformation in healthcare: technology acceptance and its applications. Stoumpos AI, Kitsios F, Talias MA. *Int J Environ Res Public Health.* 2023;**20**
5. Patient satisfaction with health care services; an application of physician's behavior as a moderator. Manzoor F, Wei L, Hussain A, Asif M, Shah SI. *Int J Environ Res Public Health.* 2019;**16**
6. Importance of leadership style towards quality of care measures in healthcare settings: a systematic review. Sfantou DF, Laliotis A, Patelarou AE, Sifaki-Pistolla D, Matalliotakis M, Patelarou E. *Healthcare (Basel)* 2017;**5**
7. Governance in health - the need for exchange and evidence comment on "governance, government, and the search for new provider models". Chanturidze T, Obermann K. *Int J Health Policy Manag.* 2016;**5**:507–510.
8. Principles of clinical ethics and their application to practice. Varkey B. *Med Princ Pract.* 2021;**30**:17–28.
9. Supporting efficiency improvement in public health systems: a rapid evidence synthesis.

Walters JK, Sharma A, Malica E, Harrison R. *BMC Health Serv Res.* 2022;22:293.

10. Kanerva A., Kivinen T., Lammintakanen J. Collaborating with nurse leaders to develop patient safety practices. *Leadersh Health Serv.* 2017;30:249–262. doi: 10.1108/LHS-05-2016-0022.