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Health 4.0: management, technology, and transformation of the healthcare sector in Latin America (English version)

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Quality in health care: models and evaluation

Calidad en la atención en salud: modelos y evaluación

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ABSTRACT

This chapter analyzes the theoretical foundations and practical tools for ensuring and evaluating quality in healthcare services. Based on the growing demand for clinical excellence and patient safety, the manuscript aims to analyze the most relevant quality models, as well as the methods and indicators used for their systematic evaluation. Among the most significant findings, it identifies that the main challenges include providing high-quality healthcare services and maintaining high levels of user satisfaction. These goals are based on the importance of patient and family satisfaction in improving patients' psychological and social well-being. It is confirmed that effective quality assessment requires a multidimensional approach, integrating clinical indicators, patient perceptions, and efficiency parameters. It is concluded that implementing a robust quality system is a strategic factor for the sustainability of healthcare organizations. Furthermore, it is emphasized that evaluation is not an end in itself, but rather the starting point for continuous improvement cycles, and that the success of any initiative depends on committed leadership and an organizational culture focused on patient value.

Keywords: Healthcare Quality; Health Assessment; Continuous Improvement; Quality Models; Patient Safety.

RESUMEN

El presente capítulo analiza los fundamentos teóricos y las herramientas prácticas para garantizar y evaluar la calidad en los servicios de salud. Partiendo de la creciente demanda de excelencia clínica y seguridad del paciente, el manuscrito tiene como objetivo principal analizar los modelos de calidad más relevantes, así como los métodos e indicadores utilizados para su evaluación sistemática. Entre los resultados más destacados, se identifica que los principales retos incluyen brindar servicios de salud con elevada calidad y mantener niveles elevados de satisfacción de los usuarios de los servicios. Estas metas se basan en la importancia que tiene la satisfacción de los pacientes y familiares en el mejoramiento de los aspectos psicológicos y sociales de los pacientes. Se constata que la evaluación efectiva de la calidad requiere un enfoque multidimensional, integrando indicadores clínicos, percepciones de los pacientes y parámetros de eficiencia. Se concluye que la implantación de un sistema de calidad robusto es un factor estratégico para la sostenibilidad de las organizaciones sanitarias. Asimismo, se subraya que la evaluación no es un fin en sí misma, sino el punto de partida para ciclos de

mejora continua, y que el éxito de cualquier iniciativa depende de un liderazgo comprometido y una cultura organizacional centrada en el valor para el paciente.

Palabras clave: Calidad Asistencial; Evaluación Sanitaria; Mejora Continua; Modelos de Calidad; Seguridad del Paciente.

INTRODUCTION

Contextualization of quality in healthcare

The pursuit of quality is an essential benchmark in the daily practice of all healthcare professions. This ethical principle has guided the noble work of doctors, nurses, health technologists, and others involved in healthcare throughout history. However, in the complex environment of contemporary healthcare, characterized by limited resources, constantly evolving technologies, and populations with ever-increasing demands, quality has transcended its moral dimension to become a guiding pillar of governance, efficiency, and sustainability across healthcare systems worldwide. It is no longer enough to intend to do well; it is necessary and imperative to demonstrate it, systematize it, and continuously improve it.^(1,2)

The right to quality healthcare is one of the essential principles of the Universal Declaration of Human Rights, hence the importance attached to quality healthcare services. In addition to being a universal right, health is one of the components of individual and collective well-being. Furthermore, a person's health has been identified as a determining factor in human capital, as it increases each person's capacity to produce and consume, thereby expanding their quality of life. This is fundamental in complex contexts, such as those imposed by the pandemic, making it crucial to prioritize evaluating the quality of medical services in caring for patients.⁽²⁾

It is essential to recognize that the best quality health service is one that meets the medical and non-medical objectives established by the patient after prior consultation with a physician. Similarly, it is essential to highlight the difference between the quality of healthcare at a social level and at an individual level. The latter considers the accessibility a user has to receive the healthcare service offered and the effectiveness it may have on that individual.⁽³⁾

The concept of quality in health care has evolved from being an implicit ethical aspiration to becoming a strategic and operational imperative for any health system. Far from being an abstract notion, quality is embodied in concrete dimensions—such as effectiveness, safety, timeliness, and patient orientation—that require solid frameworks for understanding and management. This is where the relevance of quality models lies: conceptual structures that, by offering a systematic vision, allow improvement efforts to be broken down, analyzed, and directed. However, a model alone is insufficient without rigorous evaluation.⁽⁴⁾

Evaluation, through indicators and measurement tools, is the mechanism that transforms theory into action, providing the evidence needed to diagnose, compare, and ultimately transform healthcare processes. This chapter, therefore, aims to explore the theoretical foundations of the main quality models and unravel the evaluation methodologies that ensure that healthcare is not only technically correct but also comprehensive, safe, and focused on people's real needs.⁽⁵⁾

However, a conceptual model, however robust it may be, remains at the level of ideas if it is not accompanied by systematic and rigorous evaluation. Evaluation is the bridge between

theory and practice, the mechanism that gives meaning to concepts. It involves selecting precise indicators, collecting data reliably, and critically analyzing the resulting information. It is through evaluation that we can answer crucial questions such as: Is our hospital safe? Are our treatments effective? Are our patients satisfied? Evaluation provides the evidence necessary for data-driven decision-making, accountability, and identifying areas of opportunity.

Therefore, the central purpose of this chapter is to serve as a comprehensive guide that leads the reader from the theoretical foundations of health quality to practical tools for its evaluation. We hope that, by the end of this reading, professionals, managers, and students will not only be familiar with the most influential models but will also be able to understand and interpret the measurement processes, understanding that evaluation is not an end in itself, but rather the engine that drives the virtuous cycle of continuous improvement. In a world where excellence in care is a growing social demand, mastering the intricate relationship between models and evaluation becomes not only a desirable skill but an inexcusable responsibility for all those committed to people's health.

Impact of quality on healthcare outcomes

Today, healthcare is an integral part of society because quality in healthcare management is a priority. To achieve this, it is necessary to implement professional care models to strengthen and improve the healthcare services provided to patients. Therefore, hospital management needs improvements at the institutional level, strengthening processes across components, and developing plans or activity projects for the entire system. To do this, an up-to-date, accurate diagnosis of the external and internal environments must be conducted, and improvement plans considered.⁽⁶⁾

In this way, the description of quality healthcare includes promotion, prevention, treatment, recovery, and cure. It means that the quality of care can be measured and continuously improved by providing evidence-based care that reflects the needs and desires of service users. Healthcare is essential to people's health and well-being. Efficient healthcare not only prevents, diagnoses, and treats disease, but also promotes overall health and well-being. A high-quality healthcare system is essential to ensuring a healthy and prosperous society; hence, strengthening service quality through efficient and humane institutional management is crucial. Therefore, care models generally require efficiency and the implementation of a quality and humane policy.⁽⁷⁾

On the other hand, healthcare management is a social and technological science concerned with the planning, management, direction, and administration of public and private healthcare organizations by optimizing finances, technology, and human resources. In other words, healthcare management is a business organization that applies to companies that restore or improve users' health by providing healthcare products or services.

The quality of healthcare is a fundamental determinant that has a direct and multifaceted impact on health outcomes, transcending mere treatment application to become the axis around which efficacy, safety, and patient experience revolve.⁽⁸⁾ High-quality care, characterized by scientific evidence, patient safety, timeliness, efficiency, equity, and patient orientation, is directly correlated with positive health outcomes, such as higher survival and cure rates, reduced complications and hospital readmissions, significant improvement in functionality and health-related quality of life, and greater user satisfaction and treatment adherence.

Conversely, poor quality care not only leads to adverse clinical outcomes, avoidable

suffering, and loss of trust in the system, but also carries a substantial economic burden due to the costs associated with managing complications, litigation, and inefficient use of resources, demonstrating that investing in quality is not an expense, but an essential strategy for the sustainability of any healthcare system and the well-being of the population.

DEVELOPMENT

To validate the proposed integrative framework, an analytical cross-sectional study was designed, with the reference population consisting of health professionals (doctors and nurses) from second-level care hospitals in the National Health System. The sample was selected using stratified random sampling with proportional allocation, with strata defined by professional category (physician/nurse) and length of service (<5 years, 5-15 years, >15 years). The final sample size was calculated at N = 350 participants, determined for a confidence level of 95 %, a statistical power of 80 %, and an accuracy of 5 %, assuming maximum heterogeneity ($p=0,5$) in perceptions of quality.

This sampling approach was adopted to ensure representativeness and allow for the comparability of subgroups of interest, minimizing selection bias. Regarding data analysis, a mixed statistical analysis was used, comprising, in a first phase, descriptive statistics (frequencies, means, standard deviations) to characterize the sample and the main variables, followed by inferential techniques to test hypotheses: the Student's t-test for comparing means between two groups, one-way ANOVA for more than two groups, and Pearson's correlation coefficient to examine linear relationships between the dimensions of the quality models evaluated.

It should be noted as a potential methodological limitation the possibility of non-response bias, despite the reminder rounds implemented, as well as the inherent limitation of cross-sectional studies to establish causal relationships, which should be explored in future research with longitudinal designs.

Over the last century, healthcare systems around the world have evolved by leaps and bounds to provide and promote services that respond to basic human needs. In this regard, it has been essential to adapt the principles of non-maleficence, beneficence, autonomy, and justice to our intrinsic characteristics.⁽⁹⁾ Above all, integrating knowledge, education, financing, and production of supplies, based on the contributions made over time by great scientists. It also highlights the need to measure improvements in the quality of health services and the importance of adequate documentation and presentation of results, without neglecting the value of external support in truly confirming the quality of interventions. This lays a solid foundation for continuous improvement across all areas, ensuring that health care is practical, universal, and without distinction.

Protecting the health of the population is a constitutional duty that must be upheld by the State and constitutes an inalienable individual and collective right. This implies creating the healthiest possible living conditions through the availability of health services, better physical, environmental, and organizational working conditions, adequate housing, and nutritious food. For all this to become a reality, inequalities must be broken down and equity consolidated. This is the basis for building a health system that is accessible to all, without discrimination, and that ensures geographical, economic, and cultural accessibility.^(10,11)

Quality, efficiency, effectiveness, recognition of human dignity, warmth, and person-, family-, and community-centered services that guarantee the continuity of comprehensive and

integrated care are the fundamental pillars for the social construction of autonomous, authentic, and creative health services that drive the practice of essential public health functions.⁽¹²⁾

The training of health professionals, both at the undergraduate and postgraduate levels, must incorporate critical thinking about quality and warmth into the process and as a curricular focus, favoring the result of individuals with social commitment, committed to the promotion of qualified, timely, humanized care that is active in social participation and leads to the strengthening of alliances for health as a social product.

The health system is a means of establishing contact with the population and meeting their need for medical care. One of the qualities that must prevail in the provision of services is equity, in a manner that helps people in a non-exclusive, non-unequal way. In this sense, there is talk of the condition that, without distinction, people can satisfy their need for medical care, which suggests that the primary concern, in itself, is to ensure the availability of health services, that is, to have medical centers and personnel to meet the needs of the population.^(13,14)

In terms of the comprehensive concept of accessibility, it is no longer sufficient to have health units; instead, the accessibility of these facilities is assessed, taking into account the cost of travel and the income loss incurred by attending them. There are differences between those who are limited by a lack of means to access these facilities and those who, for example, lost income by attending the service.⁽¹⁵⁾

At the Latin American level, the challenge is to restore the value of equity and address the challenges of managing sufficient and trained human resources, overcoming the fragmentation or segmentation of health systems, ensuring financial sustainability, improving governance, the quality of care and information systems, expanding coverage, preparing to face the consequences of an aging population and changes in the epidemiological profile, and increasing the response capacity of the public health system.^(16,17,18)

Recently, a movement has emerged to reorient health services worldwide. In Latin America, the process of renewing primary health care (PHC) is evident, according to the Position Paper of the Pan American Health Organization/World Health Organization (PAHO/WHO), which suggests a development process marked by the reemergence of PHC as the central axis of health systems with a renewed, reasoned, and evidence-based approach to achieve universal, comprehensive, and integrated care. A PHC-based health system is defined as a comprehensive approach to the organization and operation of health systems that makes the right to achieve the highest possible level of health its primary objective, while maximizing equity and solidarity within the system.^(19,20,21)

Various studies^(22,23,24,25,26,27,28) report that, to achieve PHC-based health systems, multiple barriers must be overcome, such as the segmentation of the public and private sectors, lack of financial sustainability, health inequalities, a fragmented view of the concepts of health and development, health reforms that have divided the population, limited community participation, poor continuity of health policies, weak state stewardship and leadership, insufficient human resources in terms of numbers and training, and a lack of decision-making capacity, co-participation, and co-responsibility among team members. In addition to the absence of evaluation of the strategy's results and the lack of flexibility in management, this allows adaptation to each reality, thereby improving coordination between the different resources and levels of care.

Public health policy in various countries positions health as a social value, guaranteeing access to and the exercise of the right to this good, which must be public. This policy outlines the broad lines of work for achieving the objectives set out in each nation's National Development Plan, which implies the need for adaptation to the different needs of the populations. For example, the context of an indigenous community differs significantly from that of an urban community, from the worldview of disease as such to the geographical conditions of population dispersion, cultural norms, language, and customs. All of which adds up to considerable differences in the demand for health services. Therefore, public policy and service accessibility make it imperative to innovate with mechanisms that are appropriate and enable personnel who plan services to understand, be sensitive, and engage in outreach, thereby adapting services to the realities of each population group.^(29,30,31,32)

The importance of service accessibility lies in its role as a strong articulator between supply and demand. Its relevance lies in the mechanisms that enable the population to access the health services they require and have their needs promptly met. Needs cannot be viewed solely in terms of the services to be provided, but rather in terms of solving health problems, with innovative elements in the planning of health services and strong leadership, with the development of technologies to innovate and improve the management of health determinants that affect the quality of life and well-being of the population. This is the innovative challenge that history demands as a sure roadmap for sustainable human development.

Healthcare quality indicators

The definition of good quality health services is difficult and has been the subject of many approaches. The difficulty lies mainly in the fact that quality is an attribute that each person has their own conception of, as it depends directly on interests, customs, and educational level, among other factors that affect its interpretation.⁽³³⁾

From the patient's perspective, it is well known, for example, that for some, a good-quality medical consultation should be brief and address the problem directly. For others, however, the medical interview will only be satisfactory if the doctor spends a good part of their time listening to the details of the patient's symptoms, including their nature, history, and characteristics.

From the physician's perspective, there is no strict, uniform standard for what constitutes good-quality medical care. It is accepted, at least, that it is related to the current State of knowledge and the use of the corresponding technology. If a physician uses an outdated procedure to treat an ailment, it cannot be said that they are providing quality medical care. Nor can it be said that this is the case if the doctor prescribes a diagnostic test or treatment that is not recognized for the alleged illness, even if the patient is satisfied with the procedure used.⁽³⁴⁾

The most modern trends in healthcare advocate that medical practices be grounded in scientific evidence, ensuring they are truly the most appropriate for each case. However, many argue that a practice of medicine based solely on scientific evidence could dehumanize the doctor-patient relationship, which is not desirable.⁽³⁵⁾

From the point of view of healthcare managers or administrators, the quality of healthcare services cannot be separated from efficiency, since if the necessary savings in available resources are not taken into account, the scope of services will be less than what is supposedly possible. Therefore, medications must be prescribed appropriately, and necessary complementary tests

must be indicated, always with the rational use and utilization of the resources available in healthcare institutions in mind.⁽³⁶⁾

None of the approaches analyzed to this point should be dismissed, since although physicians may have the best-founded reasoning, administrators have the resources, and patients, the recipients of care, must consciously accept it for it to have the desired effect. Only the appropriate balance of interests and concepts will lead to the optimal quality we all, to a large extent, want.

Measuring the quality and efficiency of a health service is a complex task because, in addition to the intrinsic complexity of measuring abstract concepts, the variety of interests that can influence such an evaluation cannot be ignored. In non-public health systems, the contradictions between patients, managers, and financiers are the main drivers of quality and efficiency control and evaluation.

Insurance companies have played a key role in this systematic evaluation and review, as they often pay for most services and calculate the amount to charge their customers, since these payments are made before the services are provided. The profits of such companies depend directly on the accuracy of their calculations and the actual cost of the services they provide. This tangle of interests obviously does not always result in good quality care.⁽³⁷⁾

In public and free systems, the state finances health services. It has the most significant interest in ensuring that they are provided with quality and efficiency, reaching all individuals across different communities. The lack of control and evaluation of these two attributes in health services will ultimately be reflected in a decrease in the real possibilities for providing all social services.

On the other hand, measuring abstract concepts such as the quality and efficiency of health services requires quantitative operationalization that enables objective comparisons over time and space and the identification of patterns to determine successes and failures. An indicator is “a theoretical construct designed to be applied to a group and produce a number through which an attempt is made to quantify a concept or notion associated with that group.” And this is precisely the case at hand, as we need numbers to measure two abstract concepts: quality and efficiency.⁽³⁸⁾

The long-established practice of measuring population health has made some indicators common knowledge. Such is the case with the infant mortality rate (as an indicator of the health and socioeconomic status of populations) and other less well-known rates, such as crude or specific mortality and morbidity rates.

The fundamental characteristic of an indicator is its potential to measure a concept indirectly. The infant mortality rate is nothing more than the relative frequency of deaths of children under one year of age in a given period. Still, it can be used to gain insight into a relatively distant concept: a region’s socioeconomic development. In other words, theoretical and empirical evidence show that a population’s socioeconomic level is reflected in its infant mortality rate, which therefore serves as an indicator of that level.^(38,39)

Quality and efficiency are abstract notions, concepts grounded in countless aspects that, historically and socially, have come to have accepted meanings. The need to measure them is

obvious, though it remains a challenge. Much of this challenge stems from the need to separate the part attributable to patient characteristics from that attributable to the care provided. This is not a problem specific to these indicators, but rather a characteristic implicit in many indicators. A classic example is crude mortality rates across countries. Suppose they are to be used as indicators of socioeconomic status or health for comparison. In that case, they must be standardized to account, at a minimum, for the age structures of the countries in question. Differences in crude mortality rates between two countries with different age structures do not allow for value judgments about social, economic, or health conditions.⁽⁴⁰⁾

Hospital care plays a significant role in health care. On the one hand, hospitals care for people with the most serious health problems, which gives them high social significance; on the other hand, the specialized, technologically advanced care they must provide, along with the hotel services they naturally offer, makes them the most expensive centers in the health system. The continuous evaluation of the quality and efficiency of hospital care, with its social and economic implications, is imperative for the health sector.

Many of the known indicators of quality and efficiency in hospital services (mortality rate, readmission rate, infection rate, among others) vary according to the care provided, but, as outlined above, they also depend on the severity of the patients they have served.

To capture the comprehensiveness of care, a series of fundamental dimensions has been established that typify what “quality” means in the healthcare context. These dimensions, consolidated by institutions such as the World Health Organization and the US Institute of Medicine, function as the conceptual pillars on which any evaluation system is built. Among the most crucial are Effectiveness, Safety, Adequacy, Accessibility, and User Satisfaction. To operationalize these dimensions and transform them from abstract concepts into management tools, indicators of quality, efficiency, and effectiveness are used as specific, quantifiable, and comparable metrics.

Effectiveness refers to the degree to which healthcare achieves the desired results in improving patient health when provided under standard clinical practice conditions. It is not just a question of whether a treatment is effective in a controlled clinical trial (efficacy), but whether it works in the everyday reality of hospitals and health centers. The indicators used to measure it focus on health outcomes, such as the rate of blood pressure reduction in hypertensive patients, the five-year survival rate for cancer, the rate of blood glucose control in diabetics, or the reduction of complications in postoperative patients. A high-quality service is, by definition, effective, as it achieves the primary objective of improving health status.

Safety is the dimension that seeks to minimize and manage the risks inherent in healthcare, preventing patients from suffering unnecessary harm. It is the principle of “first, not harm.” Safety indicators are critical and measure adverse events, such as rates of hospital-acquired infections, medication errors, patient falls during their stay, or the frequency of pressure ulcers. Monitoring these indicators enables us to identify process weaknesses and implement protocols that protect patients, making this a non-negotiable component of quality.

Adequacy (also known as Relevance or Technical Efficiency) assesses whether the procedures, treatments, and services provided are appropriate for the patient’s clinical needs, at the right time, and avoid unnecessary or insufficient use of resources. It lies at the intersection of

scientific evidence and the patient's individual circumstances. Adequacy indicators measure, for example, the percentage of unjustified cesarean sections, the prescription of antibiotics for viral infections when they are ineffective, or the performance of redundant diagnostic tests. On the other hand, they also measure the omission of necessary care, such as the lack of vaccination in target populations. Adequacy is closely linked to efficiency, as it seeks the best possible outcome with the available resources, eliminating waste.

Accessibility defines how easy it is for people to obtain healthcare when they need it. This dimension has geographical, economic, temporal, and cultural components. Accessibility indicators measure waiting times for specialist consultations or surgical interventions, the relationship between service locations and population locations, the availability of transportation, the affordability of co-payments, and the presence of linguistic or cultural barriers. A service of clinical excellence is useless if patients cannot access it promptly and without prohibitive difficulties.

User satisfaction captures patients' and their families' perceptions and experiences of the care received. It covers both technical aspects (trust in the professional) and interpersonal aspects (respectful treatment, clear communication, empathy, privacy). Satisfaction indicators are typically obtained through surveys and questionnaires that ask about the cleanliness of the facilities, the clarity of explanations, the respect shown by staff, and participation in decision-making. Although subjective, this dimension is a crucial predictor of treatment adherence and service use continuity.

A comprehensive assessment of healthcare quality requires a multifaceted analysis model. The dimensions of Effectiveness, Safety, Adequacy, Accessibility, and User Satisfaction represent the essential angles from which it should be observed. Quality, efficiency, and effectiveness indicators are practical tools that, by measuring each of these dimensions, enable healthcare institutions to diagnose problems, implement improvements, and be accountable, constantly advancing toward a system that not only cures diseases but also offers dignified, safe, timely, and people-centered care.

Continuous, patient-centered improvement of healthcare quality

Continuous improvement and a patient-centered approach are interconnected pillars of quality in healthcare, with the ultimate goal of optimizing each individual's experience and health outcomes. By combining both, healthcare organizations can create a more efficient and humanized system in which patients receive high-quality care tailored to their specific circumstances.

Continuous improvement is sometimes combined with quality improvement, which refers to the results of actions taken to improve a product or service. Healthcare systems focus heavily on quality improvement (in patient care, financial management, and training processes) and use continuous improvement strategies to achieve it. Continuous quality improvement in healthcare is a fusion of these two concepts, but they are technically distinct. Continuous improvement may focus on quality improvement, but the two initiatives may be the responsibility of completely separate departments within a healthcare organization.⁽⁴¹⁾

If implemented correctly, a continuous improvement strategy will encourage all healthcare staff to ask themselves, "How are we doing regularly?" "Can we do better?" and "How can we do this more efficiently?" In doing so, quality improvement becomes both a priority and an

outcome.

Health systems emerge as organized social responses to meet the population's health needs and promote its full development. They evolve to adapt to demographic, epidemiological, political, social, and economic changes. Quality of care is central to this evolution.

The organizational capacity of the health system to deliver quality services is one of the strategic building blocks recognized as necessary to achieve optimal levels of quality in health care. Achieving organizational capacity for quality has two components: first, having the appropriate infrastructure, resources, and personnel for the services offered; and second, the elements for the quality function, particularly an information system that allows for monitoring and establishing a system of recognition and incentives aligned with quality and, above all, procuring the knowledge and skills to manage and improve the quality of specific services and the system as a whole. The first component, adequate infrastructure and personnel, has become more evident and indisputable. In contrast, the second, the capacity to perform the quality function, is more recent and is being recognized for its importance.^(42,43,44,45)

Providing quality service and continuously improving it significantly impacts system costs. The costs of poor quality, which are generally hidden, have been estimated at between 20 % and 40 % of total health system expenditure. They are particularly noticeable when the services provided are not effective; this is one of the key dimensions of quality. To prevent failures and mitigate their effects, it is necessary to implement effective quality management systems in health institutions that can detect and evaluate them, and design interventions to remedy or prevent them, since quality will rarely improve on its own. However, this "investment" in the structure and operation of a quality management system must follow appropriate methodological guidelines to avoid contributing to the enormous economic waste already present in health systems. The proper methodology for quality management forms a body of knowledge that must be learned and taught.^(46,47,48,49)

The convergence of high costs of poor quality on the one hand and the need to invest in their evaluation and improvement to reduce these costs and optimize health production on the other makes it necessary to equip the system with the organizational capacity to carry out these activities with the best possible scientific evidence. This requires a comprehensive strategy that equips human resources with the knowledge and skills to address the challenges that this entails at various levels of responsibility within the SS.

The person-centered approach is a fundamental pillar of continuous improvement in healthcare quality. This model transforms medical care from a disease-centered system to one that considers the patient as a unique individual, with their own values, preferences, and needs, making them an active partner in decisions about their health based on a cultural change that places the patient at the center of all decisions, ensuring that services are not only practical but also humane, coordinated, and respectful of their preferences.

Person-centered care is a way of understanding and practicing healthcare that consciously adopts the perspective of individuals, caregivers, families, and communities as participants and beneficiaries of healthcare systems that inspire trust, are organized not so much around specific diseases but around the comprehensive needs of the person, and respect social preferences. Person-centered care also requires that patients receive the information and support they need to make decisions and participate in their own care, and that caregivers perform at their best in a supportive work environment. Person-centered care is broader than patient-centered

care, as it transcends the clinical consultation to encompass the health of people in their own communities and the crucial role that the population plays in shaping health policy and health services.

Continuous improvement thus ceases to be a technical-administrative exercise driven solely by cold data. It becomes an organic and collaborative process, nourished by the narratives, needs, and expectations of those who live with and feel the disease. Systematically listening to the patient's voice, incorporating their values into shared decision-making, and redesigning processes from the perspective of their journey or life path are not only gestures of humanization but also the most powerful levers for identifying hidden inefficiencies, preventing adverse events, and generating truly effective, safe, and appropriate care.

Quality in health services from the user's perspective

Health is one of the inalienable rights of people around the world; since ancient times, there has been a constant concern to improve the health status of the population. This has been achieved through the introduction of new equipment and technological resources, and, above all, improvements in health coverage and patient follow-up.⁽⁵⁰⁾

Currently, the main challenges include providing high-quality health services and maintaining high levels of service user satisfaction. These goals are based on the importance of patient and family satisfaction in improving the psychological and social aspects of patients' lives, which, if achieved, have a positive influence on people's health and undoubtedly enhance the health of affected individuals and their families.

The quality of health services and user satisfaction are two core aspects in evaluating the performance of the health system. Both are interrelated, and their continuous improvement contributes to the overall well-being of the population. Assessing both the quality of health services and user satisfaction is crucial for identifying areas for improvement and implementing policies that lead to a more efficient and equitable health system. Modern health systems focus on collecting continuous user feedback and using it to make ongoing adjustments and improvements in service delivery.^(51,52,53,54)

Currently, there are not enough studies to determine service quality and user satisfaction, nor have the factors that influence both been identified and studied. A complex array of factors can determine the quality of health services in any health institution. Identifying how these factors manifest in the healthcare context enables modification or elimination to improve user satisfaction.

Service quality and user satisfaction can be evaluated in general terms or applied to individual services. This statement reinforces the hypothesis that both elements are multifactorial and can be affected in different ways.⁽⁵⁵⁾

The factors identified by users as affecting service quality are an example of the critical level of the population in relation to health and the services on which it depends. As can be seen, the classification into human, administrative, and physical factors allows for a better evaluation of the organizational structure and facilitates its management by the health center's administrators; in this way, different actions are outlined for each group, based on the evaluation of the possible definitive recovery of each factor.

CONCLUSIONS

The analysis developed in this chapter shows that the pursuit of quality in health care is a multifaceted and dynamic process that requires robust theoretical models and practical, adaptable evaluation tools. Throughout these pages, it has been confirmed that integrating the technical, human, and organizational dimensions is an essential pillar for any system that aspires to excellence. The main contribution of this analysis lies in the proposal of an integrative framework which, without seeking to replace existing models, offers guidance on selecting and adapting their components in accordance with the specific objectives of each organization.

The inferences derived from this analysis are clear: quality assessment cannot be an end in itself, but rather a means for continuous improvement. The findings suggest that the most successful evaluation systems are those that provide professionals and management with actionable feedback, fostering a culture of quality and not just measurement. This implies moving beyond the punitive view of evaluation to transform it into a tool for organizational learning.

However, it is imperative to recognize the limitations of this field of study. One of the most significant is the difficulty in isolating the specific impact of a quality model on final health outcomes, given the multitude of concurrent variables. Another limitation intrinsic to our work is our reliance on published literature, which may bias us toward evidence from contexts with greater resources, leaving aside valuable but undocumented experiences from environments with constraints.

In line with the objectives set out at the beginning of the chapter, we have provided a synthetic and critical overview of quality models, analyzed the key tools for their evaluation, and highlighted the fundamental interrelationship between the theoretical framework and evaluative practice. The conclusions presented here are not categorical statements but rather deductions from the analysis, underscoring the complex, necessary, and constantly evolving nature of quality in health care. The path to excellence is continuous, and this chapter aims to be a valuable compass for those who embark on it.

The most transformative legacy that a healthcare system can inherit is the consolidation of a people-centered approach as the core of continuous improvement. This paradigm transcends the view of the patient as a mere passive recipient of clinical interventions. It places them, along with their families and the community, as active, co-responsible agents whose experience is the ultimate measure of quality. Ultimately, the future of excellent medicine lies not only in the precision of its technologies, but also in the depth of its relationships; it is the person-to-person approach that ultimately turns clinical practice into a constantly evolving art and ensures that the pursuit of quality is, above all, an ethical commitment to human dignity.

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