

# Development of Quality in Health Care

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## Abstract

Quality development in the area of the health sector is due to the efforts of many researchers, who have long tried in upgrading health service as it relates to the health and safety of human life, and due to the great results achieved by the quality methods in the industrial sector, these methods have been adopted in the service sector, with adjusted in line with the nature and characteristics of the service. This study focuses on the stages of the development of quality in health systems, the dimensions of health care quality, and methods used to measure the quality of health service from the perspective of patients.

**Keywords:** Quality, Health Service, Hospital, Health and Disease.

## 1. Introduction

Since human inceptions have been associated with quality feature in his behaviour and his attitude, he strives to live a life free of physical, psychological and social illnesses. And due attention to quality in medical science is very old as the human quest to control and fight the disease, according to his knowledge, conditions and possibilities. The emergence of quality in the health sector was for the purpose of controlling the spread of diseases, and meeting the requirements of patients to benefit from treatments that can cause them recovery, and give them happiness and hope in life.

Quality has become an increasingly dominant part in people's lives; people are constantly looking for quality products and health services, which are considered as human rights. The results of high-quality health services appear both in the patients' satisfaction and overall community, employees, suppliers, and in the best performance for the Health Organization. The improvement in the quality of health care services lead to lower costs, increase productivity and provide better service to users, and thereby enhance organizational performance and long-term working relations for staff and suppliers.

This study aims to highlight the historical development of quality in the health sector and identify key dimensions and methods used in measuring the quality of health service from the perspective of patients.

## 2. The Concept of Health and Disease

### 2.1 Health Definition

Health is defined as the extent of continuing physical, emotional, mental and social ability to cope with one's environment. Good health is harder to define than bad health (which can be equated with presence of disease) because it must convey a more positive concept than mere absence of disease and there is a variable area between health and disease. A person may be in good physical condition but have a cold or be mentally ill. Someone may appear healthy but have a serious condition (e.g., cancer) that is detectable only by physical examination or diagnostic tests or not even by these (Wolff, 2006).

Health care is a human right. The Reform of the health care system must provide universal access and ensure a single standard of health care, regardless of ethnicity, residency, citizenship, or employment status, including care for persons without an established residence (Berthold et al, 2009).

### 2.2 Disease Definition

Were defined by Watson and Susser in a second edition of our book in 1971, Disease e was the term reserved for objective physiological or mental disorder at the organic level and confined to the individual organism. Illness was reserved for a subjective state, a psychological awareness of dysfunction at the personal level also confined to the individual. Sickness was used, in the manner of Sigerist and Parsons, to refer to a state of social dysfunction, a social role assumed by the individual that is variously specified according to the expectations of a given society, and that thereby extends beyond the individual to include relations with others (Susser, 1990).

## 3. The History of Quality in Health Service Systems

The proof of this is found in the clauses relating to the legal status of the physician which are contained in the

now famous code [22] of the Babylonian King Hammurabi, who reigned about 2300 years before our era. The clause 218 stressed if a physician has treated a free-born man for a severe wound with a lancet of bronze and has caused the man to die, or has opened a tumor of the man with a lancet of bronze and has destroyed his eye, his hands one shall cut off (Henry Smith & Edward Huntington, 1904).

In the fifth century BC, the ancient Egyptians writings contained the standards of the medical practice where any deviation from them was considered a punishable offence. In the 4th century BC, the Aristotle law confirmed that doctors could change a patient's treatment after the fourth day of the onset of illness, and in Greek civilization Hippocrates asked disciples to swear oath to provide better service to their patients and health care (Magner, 2005).

One of the earliest expressions of a belief in quality being the essential prerequisite for commercial success came from Louis XIV's finance minister, Jean-Baptiste Colbert (1619-1683). In August 1664 he observed that: "If our factories, through careful work, assure the quality of our products, it will be to the foreigners' interest to get supplies from us, and their money will flow into the Kingdom." (Howard, 1992).

In 1908 a British physician, Emory Grove, surveyed all hospitals with more than 200 beds regarding mortality as a postoperative complication. He noted major variations in mortality between different diseases and, based on this survey, recommended the development of a standardized classification of diseases and establishment of a follow-up system for post-operative conditions over a long period of time to minimize complications and reduce mortality (AL-Assaf, 2001).

In 1854, English nurse Florence Nightingale aimed to investigate the hypothesis concerning the problems of hospital care during the Crimean War. She introduced the outcome indicators to measure mortality rates, check the quality of patient care and demonstrate the need to reduce the spread of infections. Nightingale demonstrated that the adequate nursing care resulted in a reduction of mortality rates from 32% to 2% (De Simone & Di Trapani, 2014).

In 1910-1913, Dr. Ernest Codman proposed the "end result system of hospital standardization." Under this system, a hospital would track every patient it treated long enough to determine whether the treatment was effective. If the treatment was not effective, the hospital then would attempt to determine why, so that similar cases could be treated successfully in the future (Patterson, 1995). American College of Surgeons (ACS) is founded the "end result" system becomes a stated objective (Stahel, 2014).

In 1917-1918, The American College of Surgeons develops the Minimum Standard for Hospitals. The requirements fill one page. The ACS begins on -site inspections of hospitals. Only 89 of 692 hospitals meet the requirement of the minimum standard (Stahel, 2014). The first standard manual containing 18 pages was printed in 1926 (Green & Bowie, 2011).

In 1933, Lee and Jones report about the fundamentals of good medical care (Holland, 2013).

Founded in 1951, The Joint Commission seeks to continuously improve health care for the public, in collaboration with other stakeholders, by evaluating health care organizations and inspiring them to excel in providing safe and effective care of the highest quality and value (jointcommission.org).

Avedis Donabedian (1966) introduced his model of measuring quality based on the "simple system theory" He described any health care as a fully developed system with objectives and components. Systems are divided into three components; input, process and output.

In the 1980s to the 1990s, a new phase of quality control and management began, and known as Total Quality Management (TQM). Having observed Japan's success of employing quality issues, western companies started to introduce their own quality initiatives (Laxmikumari et al., 2014).

The Institute for Healthcare Improvement (IHI) was officially founded in 1991, Its mission to improve health care all over the world. IHI takes a unique approach to working with health systems, countries, and other organizations on improving quality, safety, and value in health care (ihi.org).

In 2009 WHO has undertaken a number of global and regional initiatives to address surgical safety. Much of this work has stemmed from the WHO Second Global Patient Safety Challenge "Safe Surgery Saves Lives". Safe Surgery Saves Lives set about to improve the safety of surgical care around the world by defining a core set of safety standards that could be applied in all WHO Member States (who.int).

In 2009, The Lucian Leape Institute, established by the US National Patient Safety Foundation to provide vision and strategic direction for the patient safety work, has identified five concepts as fundamental to the endeavor of achieving meaningful improvement in healthcare system safety. These five concepts are transparency, care

integration, patient/consumer engagement, restoration of joy and meaning in work, and medical education reform (Leape et al., 2009).

The International Patient Safety Goals (IPSG), as required for implementation as of 1 January 2011 in all organizations accredited by Joint Commission International (JCI) under the International Standards for Hospitals. The purpose of the IPSG is to promote specific improvements in patient safety. The following is a list of all goals (JCI Standards Accreditation Standards for Hospitals, 2010):

- IPSG.1 Identify Patients Correctly
- IPSG.2 Improve Effective Communication
- IPSG.3 Improve the Safety of High-Alert Medications
- IPSG.4 Ensure Correct-Site, Correct-Procedure, Correct-Patient Surgery
- IPSG.5 Reduce the Risk of Health Care–Associated Infections
- IPSG.6 Reduce the Risk of Patient Harm Resulting from Falls

To sum up, the issue of quality in the health service has received a considerable attention by researchers and international organizations since health is directly linked with the life of human beings. Actually, they consider it as the most precious thing they own, and that its preservation as their most important duty.

#### **4. The Concept of The Quality of Health Service**

The determination of an accurate concept of the quality of health service is not easy, due to the nature and characteristics of intangible, which is more difficult in the identification, measurement compared to other sectors, and is distinct from the product on non-touch, heterogeneity, and the simultaneous production and delivery, all of which make it difficult to identify and measure quality. Moreover, the complexities of health care practices, diverse interests of participants in the delivery of health care and ethical considerations complicate the task.

Palmer et al. (1991) defined quality of health care as “the production of improved health and satisfaction of a population within the constraints of existing technology, resources, and consumer circumstances.”

Williamson (1978) defined quality as “the measurement of actual level of service rendered plus the efforts to modify when necessary the provision of these services in the light of the results of the measurement”.

In 1989 JCAHO defined quality as “The degree to which patient care services increase the probability of desired patient outcomes and reduce the probability of undesired outcomes given the current state of knowledge.” (Lohr, 1990).

Avedis Donabedian (1988) defines it as that kind of care which is expected to maximize an inclusive measure of patient welfare after one has taken account of the balance of expected gains and losses that attend the process of care in all its parts.

According to WHO, Quality of care is the level of attainment of health systems’ intrinsic goals for health improvement and responsiveness to legitimate expectations of the population (Legido-Quigley et al., 2008).

The American Medical Association defines quality of care as that 'which consistently contributes to improvement or maintenance of quality and/or duration of life'(Liang et al., 1991).

Council of Europe in 1998 considered quality of care as the degree to which the treatment dispensed increases the patient’s chances of achieving the desired results and diminishes the chances of undesirable results, having regard to the current state of knowledge (Legido-Quigley et al., 2008).

Hence, quality means to provide health services that satisfy patient or population needs, considering the professional values, current state of knowledge, available resources, and beneficiary circumstances.

#### **5. Dimensions of Quality Health Service**

Health care quality definitions include several characteristics such as efficiency, effectiveness, efficacy, equity, accessibility, inclusiveness, acceptance, timely manner, the appropriateness of care and continuity, privacy and trust. The other features used to describe the quality of health care encompass the provision of education for the patient and his family on health-related issues and their inclusion in treatment planning decision-making, the patient satisfaction, the insurance of safety and support in the care environment, the reduction of mortality and morbidity, and the improvement of life quality and functional status of the patient's health. Crossing the Quality Chasm has provided a blueprint for the future and has expanded the taxonomy and unifying framework in scoping the aims for improvement, chain of effect, and simple rules for redesign of healthcare. The aims for improvement, viewed also as dimensions of quality, are as follows (Ransom et al., 2005& Woodward, 2000):

- Safe: Care should be as safe for patients in healthcare facilities as in their homes.

- **Effective:** The science and evidence behind healthcare should be applied and serve as the standard in the delivery of care. Effectiveness Care produces positive change in the health status or quality of life of the patient.
- **Efficient:** Care and service should be cost effective, and waste should be removed from the system. High quality care is provided at the lowest possible cost.
- **Timely:** Patients should experience no waits or delays in receiving care and service. Ready access to services is provided.
- **Patient centered:** The system of care should revolve around the patient, respect patient preferences, and put the patient in control. Required care is provided, and unnecessary or harmful care is avoided.
- **Equitable:** Unequal treatment should be a fact of the past; disparities in care should be eradicated. Services are provided to all people who require them.
- **Acceptability:** Care meets the expectations of the people who use the services.
- **Comprehensiveness:** Care provision covers all aspects of disease management from prevention to remediation; psycho-social aspects of care are also considered.

Quality of care has also been seen as having three interrelated components :**Technical care**, which involves using medical knowledge and technology to maximize the benefits of care for the patient while minimizing the risks involved; **Interpersonal care**, which involves paying attention to the psychosocial aspects of care, including the patient provider relationship, the larger social context in which care is provided and the social circumstances with which the patient must cope; **The organization of care**, which determines its accessibility, timeliness, the amenities provided and efficiency (Woodward ,2000).

## 6. The Scales of Health Care Quality

The scales of health care quality from the patients' perspective include:

### 6.1 ServQual Scale

Parasuraman, Zeithaml and Berry (1985) developing a model of service quality. Regardless of the type of service, the consumers used basically similar criteria in evaluating service quality. These criteria seem to fall into 10 key categories which are labeled « service quality determinants » .Only two of the ten determinants-tangibles and credibility-can be known in advance of purchase, there by making the number of search properties few.Most of the dimensions of service quality mentioned by the focus group participants were experience properties: access, courtesy, reliability, responsiveness, understanding/knowing the customer, and communication. The authors have distilled this list into five dimensions that include Tangible, Reliability, Assurance, Responsiveness, and Empathy, and it measures the quality of services by analyzing the gap between perceptions and expectations (Parasuraman et al., 1988).

- The difference is positive ( $P > E$ ) and therefore the perception is superior to the expectation. In this case, the quality is positive.
- The difference is negative ( $P < E$ ) and is therefore a situation in which the expectation exceeds the perception, causing a poor quality situation.
- Both values are equal ( $P = E$ ) and is therefore a situation where the client receives what he expected.

### 6.2 ServPerf Scale

Cronin and Taylor (1992) evaluated performance has contributed enormously to the development in the study of service quality. ServQual operationalises service quality by comparing the perceptions of the service received with expectations, while ServPerf maintains only the perceptions of service quality. The ServPerf is based on the same five dimensions used in the ServQual illustrating that service quality is a form of consumer attitude. The following formula can be deduced: Service quality = Service Performance.

## Conclusion

Health organizations are hard striving to improve the quality of services they provide, in order to reach a degree of distinctiveness and superiority. Quality in health care means the extent to which the desired health outcomes and their compatibility with the principles of professionalism are accomplished. It also refers to professional excellence and efficient use of resources so as to reduce patients' exposure to risk, and achieve a high degree of their satisfaction. The key benefits of quality in health organizations can be summarized as follows:

- **Outstanding service:** The goal of adopting a strategy to improve quality is to achieve high levels of medical care, optimal use of human and material resources, and ongoing work to improve the quality of health services.
- **Patient satisfaction:** to provide high-quality health service, in keeping with the aspirations of the beneficiaries, or exceeding their expectations, increases the patient satisfaction about the health organizations.

- Raise the morale of the Staff: The participation of workers in the process of improving and developing quality, sustains their sense of belonging and responsibility, and enhances their confidence as they are considered internal agents require satisfaction.

## References

- Al-Assaf A. F., Health Care Quality An International Perspective, WHO Regional Publication, SEARO, No. 35, New Delhi , India ,2001,P 03.
- Berthold Tim., Miller Jennifer., Avila-Esparza Alma., Foundations for community health workers, Jossey-Bass, United States of America, 2009, P112.
- Cronin, J. J. & Taylor, S. A., Measuring Service Quality: a Re-examination and Extension, Journal of Marketing , Vol 56 ,No 7,1992, PP: 55-68.
- De Simone Stefania., Di Trapani Giovanni., The quality assessment in healthcare organizations, IJTEMT [www.ijtemt.org](http://www.ijtemt.org); EISSN: 2321-5518; Vol. III, Issue V, October 2014, PP:1-5.
- Donabedian Avedis., Evaluating the Quality of Medical Care, Milbank Memorial Fund Quarterly, Vol. 44, No. 3, Part 2: Health Services Research I. A Series of Papers Commissioned by the Health Services Research Study Section of the United States Public Health Service. Discussed at a Conference Held in Chicago, October 15-16, 1965 (Jul., 1966), PP: 166-206.
- Donabedian Avedis., The quality of care: How can it be assessed? Journal of the American Medical Association, Vol 260 No 12, 1988, PP: 1743–1748.
- Green Michelle., Bowie Mary Jo., Essentials of Health Information Management: Principles and Practices, second edition, Delmar, Cengage Learning, 2011, P07.
- Henry Smith Williams., Edward Huntington Williams., A History of Science (complete), library of alexandria, 1904.
- Holland Walter., Improving Health Services: Background Method and Applications, Edward Elgar Cheltenham, UK, 2013, P26.
- Howard David., An approach to improving management performance. II. Knowledge-the fabric of understanding, Engineering Management Journal , Volume:2 , Issue: 3 ,1992, PP: 123-130.
- Joint Commission International Standards, Accreditation Standards for Hospitals, 4th Edition, USA, 2010, P 35.
- Laxmikumari, Y Vijay kumar.,V.Venkata Ramana., TQM: A Quality and Performance Enhancer , Research Inventy: International Journal of Engineering And Science Vol.4, Issue 8 (August 2014), PP 91-94
- Leape L., Berwick D., Clancy C., Conway J., Gluck P., Guest J., Lawrence D., Morath J., O'Leary D., O'Neill P., Pinakiewicz D. and Isaac T., Transforming healthcare: a safety imperative, Quality Safety Health Care, Vol 18, 2009,PP: 424-428
- Legido-Quigley Helena., McKee Martin., Nolte Ellen., Glinos Irene A., Assuring the quality of health care in the European Union A case for action, World Health Organization, 2008, P02.
- Liang Matthew H., Fortin Paul., Quality assurance and audit: lessons from North America ,Annals of the Rheumatic Diseases, 1991, PP 522-525.
- Lohr Kathleen N., Medicare: A Strategy for Quality Assurance, Volume II: Sources and Methods, Washington D.C: National Academy Press; 1990, P131.
- Palmer RH. Considerations in defining quality of health care. In RH Palmer, A. Donabedian, GJ. Povar (Eds.) Striving for Quality in Health Care: An Inquiry into Policy and Practice. Ann Arbor, Health Administration Press, 1991,PP: 1-53.
- Parasuraman A, Ziethmail V, Berry L,SERVQUAL A multiple-item scale for measuring consumer perception of service quality, Journal of Retailing ,Vol.64.No.1,1988,PP: 12- 49.
- Parasuraman.A., Ziethmail.V., Berry. L, A Conceptual Model of Service Quality and Its Implications for Future Research , Journal of Marketing, Vol. 49, No. 4,1985, PP: 41-50.
- Patterson Carole H., Joint Commission on Accreditation of Healthcare Organizations, Infection Control and Hospital Epidemiology, Vol. 16, No.1, Jan 1995, PP: 36-42.
- Ransom Scott B., Joshi Maulik., Nash David., The healthcare quality book : vision, strategy, and tools , Health

Administration Press, Chicago ,2005,P05.

Stahel Philip F., Cyril Mauffrey., Patient Safety in Surgery, Springer-Verlag London, 2014, P 153.

Susser Mervyn., Disease, illness, sickness; impairment, disability and handicap ,Psychological Medicine, Printed in Great Britain , Vol 20,1990, PP:471-473.

Williamson J.W., Formulating Priorities Pore Quality Assurance Activity: Description of a Method and its Application , Journal of Medical Association, Vol. 23, N° 9, 1978, PP:53-59.

Wolff Anita., Britannica Concise Encyclopedia, London United Kingdom, 2006, P 851.

Woodward Christel A., Improving provider skills: Strategies for assisting health workers to modify and improve skills: Developing quality health care a process of change, World Health Organization 2000, P 05.