

# Importance of Superiority in Health Care Sector

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## ABSTRACT

Quality improvement and patient safety are important components in modern-day health care sector. Hospitals today are increasingly realizing the need to focus on quality as a measure to improve their competitive position. Health care quality is a level of value provided by any health care resource, as determined by some measurement. As with quality in other fields, it is an assessment of whether something is good enough and whether it is suitable for its purpose. Mostly health care sector focused on Customer based determinants and perceptions of various qualities i.e. customer satisfaction, Physician & staff Performance etc., therefore, play an important role when choosing a hospital. Customer satisfaction is the most important parameter for judging the quality of service being provided by a service provider to the customer. Positive feedback from the customer it will be helpful for business otherwise, whereas negative feedback makes it shrink. This theory is also applicable to health care providers and other industries also. Nowadays, patients are aware of their rights in terms of health care services and the quality of health care services being delivered to them. In this research paper, literature review has been done to study various tools i.e. customer satisfaction and quality indicators given by health organizations to measure quality in the health care sector.

Keywords : Quality, Health Care, Patient Satisfaction

## I. INTRODUCTION

The goal of health care is to provide medical resources of high quality to all who need them; that is, to ensure good quality of life, to cure illnesses when possible, to extend life expectancy, and so on. Researchers use a variety of quality measures to attempt to determine health care quality, including counts of a therapy's reduction or lessening of diseases identified by medical diagnosis, a decrease in the number of risk factors which people have following preventive care, or a survey of health indicators in a population who are accessing certain kinds of care.

As the world is developing, the life expectancy is increasing. On average, every person visits hospital in every 17 years. According to the Journal of the

American Medical Association, nearly 100,000 people die annually in hospitals due to medical negligence. Among them, 80,000 die from hospital-acquired infections. One out of every 370 people admitted to a hospital dies due to medical negligence that could have been prevented Houle, D., & Fleece, J. (2012). So, the quality of services being provided to patients is important.

## II. METHODS AND MATERIAL

### Relationship between Quality and Health Care

Health care is the diagnosis, treatment and prevention of disease, illness, injury and other physical and mental impairments in human beings. Health care is delivered by practitioners in allied health, dentistry, midwifery, obstetrics, medicine, nursing, optometry,

pharmacy, psychology and other care providers WHO. It refers to the work done in providing primary care, secondary care and tertiary care as well as in public health.

Quality is the standard of something as measured against other things of a similar kind. The Institute of Medicine (IOM) has defined the quality of health care as 'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge'. The quality of technical care consists in the application of medical science and technology in a way that maximizes its benefits to health without correspondingly increasing its risks.

There are various parameters or indicators to judge the quality of health care. Patient satisfaction is the most important parameter to judge the quality of health care service provided.

#### **Customer Satisfaction as Quality Parameter**

Haddad, Fournier and Potvin (1998) estimated the layman's perception of the quality of primary health care services in developing countries by using 20-item scales. The study was done on 241 people in Guinea. It was found that the value of scale developed was appropriate.

Sohail (2003) examined the service quality in the private hospital of Malaysia using the SERVQUAL (RATER) scale. It was found that the patient's perceived value of services exceeded expectations for all measured variables. It was also concluded that the level of service quality improved through modernization of hospitals via accreditation.

Rashid and Jusoff (2009) explored the 'conceptual model of service quality', given by Parasuraman et al. (1985) to study the gap on the service provider's side which impede the delivery of services that consumers perceive to be high quality. Service quality

dimensions (tangible, reliability, responsiveness, assurance and empathy) and categorized problems in three aspects (comprising service indistinctness, diversity of employees and interrelatedness) were discussed, and it was concluded that the measurement of hospital service quality should be based on perceived quality rather than the objective quality because service quality is intangible, heterogeneous and its consumption and production occurs in tandem.

Larsson and Larsson (2009) explored the relationship between patients' service quality perceptions and their attitudes towards visiting the same health care provider again in Sweden. Responses were obtained from 22,170 patients, using the 'quality from the patients' perspective questionnaire'. This study found out that about 10 per cent patients hesitated to continue to visit the same health care provider again and recommended increasing health professional's knowledge of patient's quality appraisals and use of theory-based instruments when monitoring patients' opinions on care and follow-up of the result on later visits.

Sharma and Narang (2011) assessed the perception of patients towards the quality of health care services in rural areas of seven districts of Uttar Pradesh (Gonda, Partapgarh, Sitapur, Hardoi, Varanasi, Gorkhpur and Barielly). One community health centre and two primary health centres were picked randomly from each district, and questionnaire was to be filled by patients. Out of 500 patients, 396 patients had filled complete questionnaire. It was concluded that the quality of health care services perceived higher in primary health care centre than in community health centres. Researchers came to the conclusion that the inadequate availability of doctors, poor clinical examination and poor quality of drugs were the drawbacks reported at community health centres.

Verelst et al. (2012) studied the retrospective medical record to assess the reliability in assessing

qual-ity and preventability and disability of adverse events in hospitals. A review of 1,515 patients in Belgium was made by two teams. After the discharge of patients, more adverse events were found by the first team as compared to the second team.

Seema Mehta (2011) studied the relationship between the service quality and patient satisfaction using self-designed standardized questionnaires. The study yielded three factors of service quality—promptness, medical aid and patient interest and two factors for service quality and facilities—clinical services and physical services. It was found that service quality and patient satisfaction were important tools for improving health care outcomes.

Ramanujam (2011) studied that in corporate private sector hospitals of Hyderabad, customers' expectations are fulfilled according to the service quality dimensions (reliability, assurance, responsiveness, empathy and tangibles) using the data collected from three private corporate hospitals (Apollo, Yashoda and CDR). This study found that the assurance dimension of service quality was critical; nonetheless, hospitals were delivering the quality of services to patients. Reliability and responsiveness dimensions were satisfactory performed by health care but corporate hospitals need to focus on empathy dimensions as it is moderate in delivering quality of services.

Bhardwaj and Chawla (2013) explored the perception and expectations of patients of multispecialty hospitals of India. Researchers studied service quality dimensions, including service bundling, service accessibility, service, timeliness, service accuracy, service promptness, service security, service ambience, service competence, service impressiveness and service customization, for studying the perceptions of patients. In comparison, it was found that private hospitals were not rated better than public hospitals in terms of

reliability, accuracy, timeliness, promptness and security, although private hospital services were costlier than public hospitals. The authors concluded that service quality must be viewed from the customer's perceptions point of view.

Murti, Deshpande and Srivastava (2013a) explored the relationship between three key dimensions—service quality, patient satisfaction and behavioural intention—in health care services in India. The study was done using literature review, and it was concluded that the service quality in developing countries varies from developed countries due to culture.

Thakur (2014) studied relationship between service qualities, customer satisfaction and customer's positive attitude in public sector. The study was carried out by using questionnaire for patients as a tool for collecting data. It was found that out of these three, service quality and customer satisfaction are strongest variables for the positive attitude intention of customers.

Murti et al. (2013b) measured the quality of service of private hospitals in Bhopal city. Researchers studied the quality of service by using customer perception and behavioural intentions. Multiple regression analysis was used to examine the relationship between customer satisfaction, behavioural intentions and customer perceptions. It was found that service quality leads to improving the customer's satisfaction which creates an impact on behavioural intentions.

### **Models Developed by Researchers**

Nicholls (1974) evaluated patient problems in terms of care, and changes were made according to the problems of patients. These changes were in the standards, information feedback system and action. These changes, given by the researchers, led to

quality control in services or care provided to the patients.

Brachman and Haley (1981) studied the hospital administrator's role in infection control programme in US hospitals. Data were obtained by interviews with administrators. It was concluded that hospital administrator's support of infection control programme should be must for the programme to be effective.

Welch and Grove (1991) explored the overview of quality assurance in health care through the review of medical records. Researchers found out that the universally accepted meaning of quality assurance was not clear. They studied hospital-based mortality model and the appropriateness of care model. It was found that hospital-based mortality model was not perfect. It was also found that the appropriateness of care model needs and quality assurance were closely related.

Kaluzny, McLaughlin and Simpson (1992) discussed the application of total quality management (TQM) in public health organization. In public hospitals, TQM is a method which helps to achieve standards effectively and quickly in predetermined period. The success of TQM depends on many challenges such as redefining the role of management, corporate culture which help in continuous improvement, refining the role of citizen oversight functions and setting realistic estimates of the time needed to complete a task or project.

Donabedian (1996) explained the effectiveness of quality assurance in health care sector through a series of steps: introduction, implantation, implementation, modification in behaviour and consequent progress towards health and health-related objectives.

Lammers et al. (1996) examined that the health care quality can be improved through TQM. The data for

analysis was collected through responses from quality coordinators and team leaders.

Marshall (1999) studied the barriers that have been faced by health care providers in improving quality in UK, through case study. The study identified seven barriers which hamper the quality improvement processes: absence of a strategic plan, lack of data, lack of leadership, roles and responsibilities not well defined, absence of cooperation or team work in health professionals, organizational isolation, competing priorities.

Bradley et al. (2004) studied the importance of data feedback as it is the most important parameter for quality improvement. The study was done in US. Open-ended interviews with clinical staff were conducted. It was concluded that data feedback is more effective approach in changing physicians practice and to overcome potential pitfalls.

The comprehensive conceptual model has been built by Naidu (2009) by reviewing international articles for measuring and understanding variables affecting patient satisfaction in health care quality.

Thakur et al. (2008) developed clinical indicator for secondary health care system in Maharashtra through brainstorming session. The study evaluated that local employees' active participation is important for the implementation of clinical indicators. Researchers concluded that monthly reviews of scheme should be conducted and reliability of the collected data should also be checked.

Kim, Coenen and Hardiker (2010) introduced total quality improvement (TQI) model through the synthesis of literature and existing standards. The model was also validated using a case study of International Classification for Nursing Practice (ICNP). The applicability of the TQI model and the appropriateness of the criteria identified in the TQI mode were also demonstrated. It was suggested that

further work on documentation and ICNP policy was needed.

Lind et al. (2011) studied the quality of outpatient hospital care for children under five years of age in Afghanistan. It was found that children receiving care from female providers had better health care than those receiving care from male providers. The hospitals managed by non-governmental organizations (NGOs) provided better care for poor patients than hospital managed by other mechanisms.

Hollenbeak et al. (2011) studied the implications of electronic measures for identifying risk factors and cost of surgical site infections in surgery patients. The data were collected randomly from 1,066 selected general and vascular surgery patients. Researchers concluded that electronic measures were convenient but costly, and data was not correlated with clinical measures of infection.

Pai and Chary (2012) proposed conceptual model to measure the patient -perceived service quality in health care with 10 dimensions: physical environment and infrastructure, personnel, quality, image, trustworthiness, support, process of clinical care, communication, relation, personalization and administrative procedures. Researchers concluded that in the features of uncertainties, health care organizations had to be renewed and reprogramming of dimensions which influenced service quality was needed.

Itumalla (2012) studied the role of information technology in enhancing service quality in hospitals. The data was collected from 210 patients in private hospitals of Hyderabad and customer satisfaction was studied using customer satisfaction index (CSI) model. The private hospitals in Hyderabad secured 75.87 CSI out of 100, which showed that improvement in hospitals was still possible.

Kaplan et al. (2012) developed a model for understanding success in quality (MUSIQ). MUSIQ showed the influence of context in the success of individual quality improvement projects. Contextual factors were organized according to the level in which they were believed to operate in the health care system.

Haron, Hamid and Talib (2012) developed an understanding of the 'usability concept' and how it can be used as a guideline for managers. Improvement in spatial layout of hospital led to more efficient, effective, user-friendly working of staff and improved the comfort level of outpatients.

Essiam (2013) examined the health care service delivery to outpatients on the grounds of service quality dimensions and patient satisfaction. The author obtained data using the questionnaire from outpatients and found gap in SERVQUAL dimensions. Responsiveness, reliability, tangibility and empathy had quality gaps. Responsiveness had highest gap in terms of service quality and assurance had least gap.

Faezipour and Ferreira (2013) discussed the importance of sustainability in health care system. A balanced approach needs to be ensured as the resources are limited and society, economic and environmental demand is increasing. The main focus of the study was patient satisfaction as it is the main pillar of health care

### **III. RESULTS AND DISCUSSION**

#### **Quality Indicators Given by Health Organizations**

Escovitz et al. (1978) examined quality assurance effects on 17 hospitals of the Greater Delaware Valley region through medical audit processes. Researchers found that all hospitals had switched from various audit systems to Joint Commission on Accreditation of Hospitals (JCAH) system. It was

also concluded that medical audit will also benefit the patients.

Popay and Williams (1998) highlighted the limitations of evidence-based medicine (EBM). They also explored the implications of shifting of focus from medicine towards health care.

Stanley et al. (2001) examined the service quality improvement through the Quality of Care Management Centre (QOCMC) in Nepal. QOCMC was launched as a part of the government's family programme in Nepal. The success of the programme proved that the quality of service can be improved with limited local resources also.

Bhatia and Cleland (2004) compared the quality of care provided to female outpatients by practitioners of private and public sectors in Karnataka. The study found that the private sector practitioner, as compared to public sector practitioner, took more time for physical examination of patient and doctor-patient communication is also good, but over-prescription of drugs is more in the private sector.

Mattke, Epstein and Leatherman (2006) described the background history and approach of Organisation for Economic Co-operation and Development (OECD) health care quality indicator project. It was concluded that additional work in terms of health care quality indicators was needed before the project reached suppliers, policy-maker and researchers.

Glickman et al. (2007) discussed key elements of organizational attributes from a management perspective for promoting quality in health care, which were: culture, organizational design, incentive structure and information management and technology.

Bishai et al. (2008) examined the ways in which public and private sectors cooperate to improve the

quality and accessibility of primary health care in the poorest developing countries.

Greenfield et al. (2009) tested the reliability process of health care accreditation survey processes with the help of 29 research activities which consisted of 25 focus groups, three interviews and a survey with the help of a questionnaire. The study identified six factors that shape the accreditation process reliability and concluded that those six factors are challenges to be continually negotiated to ensure health care accreditation survey reliability.

Devnani et al. (2010) studied the availability & accessibility of hand-washing facilities along with supplies of hand-washing agents in the outpatient department (OPD) of a tertiary care teaching hospital. It was found that no sink had hand washing instructions—demonstrating the correct techniques of hand washing—displayed, though physical facilities required for hand washing were adequate.

Warrier and McGillen (2011) focused on quality improvement and patient safety measures to encourage physician to follow evidence-based medical practice.

Gorji and Farooque (2011) measured the health care quality and performance of two countries—India and Iran capital cities—based on the Baldrige health care guidelines which were proposed by the American Hospitals Association for hospitals. It was found that both India's and Iran's hospitals were not close to the benchmarks (Baldrige health care criteria).

Ellingson et al. (2011) studied the perception of health care personnel for implementation of sensor-based electronic system for hand hygiene monitoring. A study was carried out in Iowa city (three hospitals). Researchers found that healthcare personnel (HCP) in leadership positions were familiar and comfortable with such technology.

Anchalia and Ambruoso (2011) carried out an audit for infection control in the surgical unit of a tertiary care hospital in Gujarat and implemented surveillance and hospital epidemiology. The study found that after 12 months of implementation of surveillance, infection rate decreased from 30 per cent to 13 per cent.

Six Sigma in health care set-up was applied by Rohini and Mallikarjun (2011), and the alignment of TQM was done. Researchers proposed the DMAIC (define, measure, analyze, improve/implement and control) Six Sigma approach to improve the process in operation theatre in Bangalore. Researchers showed and concluded that the DMAIC approach can be used for wider applications and can be used as a template for improving the operation theatre (OT) process in hospitals.

Shah (2011) explored the relationship between the quality of medical care services and cost of hospitalization by evaluating the various quality indicators (asset value, manpower ratios, accreditation and quality system, mortality rate and patient experiences) and their association with hospitalization cost by using the data collected from 12 private hospitals of India (tertiary, multispecialty and secondary care). The author failed to answer various quality indicators impact on overall quality of care and cost of hospitalization.

Pronovost et al. (2011) worked to reduce central line-associated blood stream infections and hospital-acquired infections in five phases. It was concluded that with the implementation of evidence-based recommendations, health care-associated harm could be eliminated. The importance of resources was also discussed in detail for national prevention programmes to be successful.

Mallya (2012) compared Brazil, Russia, India and China (BRIC nations) on millennium development goal (MDG) basis. The author found that among the group, India was the only country which was unable to meet any of the set target. Poverty, illiteracy, gender biasness, urban biasness, poor quality health services and lack of access to proper health care services are the factors responsible for poor performance in India. It was concluded that India has one of the lowest per capita health expenditure in the world. It was also stressed upon that health should be declared a fundamental right.

D'Souza and Sequeira (2012) studied service quality through a case study of health care organization in Mangalore, Karnataka. The authors used Grounded theory to measure patient-perceived service quality with the help of open coding, axial coding and selective coding. 'Doctors quality of care', 'nursing quality of care' and 'operative quality of care' were analyzed using the proportion of statistically significant variance. Out of these three, operative quality of care yielded 79 per cent, which was the highest, doctors quality of care yielded 45.6 per cent, which was the lowest and nursing quality of care yielded 63.8 per cent. Doctors quality of care needed improvement and involvement of management for these improvements.

Rao (2012) found that private health care sector in India is large as compared to the government sector. The government health care system is weak and the quality of care is poor, which is a major contributing factor for the growth of the private health care sector.

Chakraborty and Majumdar (2013) measured the relationship between the National Accreditation Board of Hospitals (NABH) and the SERVQUAL model in India by conducting interviews with physicians. For understanding the NABH standards for quality improvement and SERVQUAL model, literature review was done. Researchers compared

both NABH and SERVQUAL model and found that both the standards have strong associations.

Burnett et al. (2013) compared to the quality and safety of health care services of European hospitals. Five countries were compared in terms of 10 quality and safety indicators followed in that country. It was concluded that further work was needed to be done as the data available was little.

Allen (2013) studied the implementation of quality management system in laboratory services of Ontario, Canada. The implementation led to positive impact, that is, safety of the patients improved.

#### IV.CONCLUSION

Many researchers have worked for quality in health care. Most of the researchers have worked for customer satisfaction through a questionnaire. As per many researchers, customer satisfaction is the most important parameter. Few researchers have developed their own model or worked on the indicators given by various health authorities. Quality in health can be improved by training doctors and staff to follow the set of standard operating procedure. Management should also validate the same through medical records of patients. (Refer Figure 1)

Further work can be done by combining customer satisfaction and the quality indicators given by various national and international societies. The customer cannot judge the quality of services being provided to them, but it can be better judged by infection rate or adverse events or hospital-acquired infections, average length of stay of patient in hospital. The study can also be carried out by considering the health care sector as primary, secondary and tertiary levels. Very few researchers have considered rural area for their research. The

quality in health care can also be applied to rural areas.



**Figure 1.** Parameters Helpful to Judge Quality in Health Care

Source: Authors' own

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