A Study on Implementation of Total Quality Management (TQM) in Hospital to Improve Service Quality

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Abstract— Hospitals are by nature complex organizations and the complexity is compounded in service hospitals with perceived notion of service deficiencies. Quality has emerged as a major issue in health care sector and TQM has been accepted as a major long-term strategic initiative towards continuously improving quality of health care. Key concepts of TQM start with top management leadership with emphasis on process and customer focus. Implementation of TQM in service hospitals will require Quality Management awareness, training and framework development as well as development of customer awareness. TQM has been widely applied in clinical field with successful outcome. TQM is not a short-term solution, it has to be understood and practiced as a long-term strategic commitment.

Keywords— Total Quality Management, Implantation, Healthcare Sectors, Service Quality.

I. INTRODUCTION

Healthcare sector in India is witnessing a radical change in terms of its operations, expectation from customers and application of new technology and methods of medical treatment. India is also becoming a destination of health travel and attracting patients across the world. The major challenge to the industry is to ensure world-class operations of hospitals for meeting the requirements of its customers. Providing best in class quality of service is of great strategic importance in the management of any service organization.

All organizations including health care organization are composed of services which consist of processes or sets of actions, intended to create value for those who use or depend on them (customers/patients). One of the immediate needs of this sector is to analyse these processes and understand it in detail. Equipment having breakdown and being non-functional is inevitable, but the real challenge is to minimize the equipment frequency of breakdowns and reduce the equipment downtime. This can be done by many ways using different tools applicable to many industries. Some of the known important tools and techniques for process improvement are 5S techniques, total quality management (TQM), lean productivity, just in time (JIT) and total productive maintenance (TPM). Total Productive Maintenance is found to be successful in improving the overall equipment efficiency and reducing the breakdown of the equipments and thereby providing uninterrupted service.

Quality has become one of the most important factors in global competition today. Intensifying global competition and increasing demand by customers for better quality have caused more and more companies to realize that they will have to provide quality product and /or services in order to successfully compete in the marketplace. To meet the challenge of this global revolution, many businesses have invested substantial resources in adapting and implementing total quality management (TQM) strategies.

Quality management has become an important issue in healthcare organizations (hospitals) during the last couple of decades. The
increased attention to quality is due to governmental regulations, influence of customers, and hospital management initiatives. So, the role of government as the main provider of healthcare (HC) services has changed. Additionally, the healthcare market is changing from a producer-oriented to a customer-oriented market due to the increasing influence of customers and public pressures. As a consequence, the patient is becoming a customer for the healthcare organizations, or more likely a direct strategic partner who participates in a decision making process. The changes in environment, society, and political policies have significant impacts on management in hospitals as well. There are many difficulties in managing healthcare organizations in a competitive e-market place with a little support from official.

Total quality management is a system that makes quality the responsibility of all clinicians and administrators throughout the health care organization. In TQM, systems are established to prevent clinical and administrative problems, increase patient satisfaction, continuously improve the organization’s processes, and provide healthcare services as good, or better, then those of the competitors. Customer focus, error prevention, employee participation, teamwork, systemization, leadership and continuous quality improvement are TQM universal management concepts that can be transferred to any business setting.

II. TOTAL QUALITY MANAGEMENT

Total Quality Management refers to the deep commitment of an organization to quality. Each and every step taken by the organization to improve the quality of products and services they are providing to their customers are called Total Quality Management. TQM is a relative newcomer to hospital management. In the healthcare industry all hospitals provide the same type of service, but they do not provide the same quality of service. To achieve service excellence, hospitals must strive for zero defects, retaining every customer that they can profitably serve. Zero defects require continuous efforts to improve the quality of the service delivery system and hence this concept of TQM is having a lot of relevance in this sector. We might have come across situations like long wait for the services from doctors, nurses and other hospital staffs, low quality of treatment received from doctors which leads to repeated surgeries and expenditure for patients, which can even lead to their death. All these can be avoided by improving the total service quality.

A traditional belief regarding TQM is that 'high quality' costs more. But by implementing a proper quality system we can control the cost by:

- Reducing unnecessary interventions.
- Getting it right first time e.g. cost of repeat surgery.
- Avoidable complications e.g. post-operative infections.
- Imbalances of resources: Lack of theatre time or lack of access to diagnostic facilities leading to increased length of stay.
- Employee turnover and consequent training costs.

In healthcare services there are three definitions distinguished TQM from other approaches:

- One is that TQM is a “Comprehensive strategy of organizational and attitude change for enabling personnel to learn and use quality methods, in order to reduce costs and meet the requirements of patients and other customers. (Ovretveit, 2000)
- A second definition by Donabedian refers to quality as “the maximization of patient’s satisfaction considering all profits and losses to be faced in a healthcare procedure” (Donabedian, 1989).
- A third definition given by US theories (William & Johnson, 2013) emphasized that TQM is a management method:

  TQM/CQI – Continuous Quality Improvement – is simultaneously two things: a management philosophy and a management method. They propose four “distinguishing functions”, which are often defined as the essence of good management which includes:

  - Empowering clinicians and managers to analyze and improve process
  - Adopting a norm that customer preferences are the primary determinants of quality and the term “customer” includes both the patients and providers in the process
  - Developing a multidisciplinary approach which goes beyond conventional departmental and professional lines
  - Providing motivation for a rational data-based cooperative approach to process analysis and change.

Understanding the methods of TQM implementation in healthcare system can provide insights that will help
develop approaches to facilitate and enhance the successful TQM implementation within the local culture.

A. The Dimensions of Quality

Various dimensions of quality that need to be addressed are effectiveness, efficiency, technical competence, safety, accessibility, interpersonal relations, continuity and amenities. Healthcare quality does not mean that care is given by the most learned and highly experienced professors of medicine. But that the system is devised in such a way that in any situation most ordinary yet adequately trained doctor can deliver appropriate treatment to the needy patient. Quality is therefore based on the principles of cost saving. Quality calls for the principles of elimination of waste, elimination of re-work and elimination of duplication. Implementing quality in healthcare therefore means that the provision of training in quality methodologies, securing monitoring capabilities, measuring performance and improvement accomplishments and collection of necessary data for documentation of status and level of care.

Quality assessment can be done on the basis of the following factors

- Qualification of the treating doctor
- Training status of the staff
- Attention to safety of care
- Existence of a quality system
- Excellence of the service aspect of healthcare
- Doctor's commitment to quality

III. IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN HOSPITALS

A. Factors having impact on TQM implementation

In healthcare industry, success of TQM applications depends on a strong leadership that must be initiated by the top management. Role of top management and quality policy has the highest impact on TQM plan. Top management of the hospitals determines an appropriate organization culture, vision, and quality policy. On the other hand, the top management must provide adequate resources to the implementation of quality efforts. Another factor is employee relations. Its effect is by building quality awareness among employees and by the recognition of employees for superior quality performance. Finally process management, which includes such sub-factors as process monitoring, supervision, and preventive equipment maintenance, is having least impact on TQM implementation

B. Quality service in low cost

In India, multi specialty hospitals like Narayana Hrudayalaya in association with Karnataka State Cooperative Society started a Micro Health Insurance Programme called Yeshaswin. The insurance programme has proved that by just paying Rs 5 a month, millions of poor farmers can afford to undergo any surgery, including heart surgery, totally free. So, at lowest cost high quality services are available for poor people.

C. E-Governance Plays an Important Role in Providing High Quality Services

- Storing of information in digital form accessible and transferable, wherever and whenever needed is essential.
- A tele-healthcare system can be as simple as providing a patient with the means to alert a remote care provider of their need for assistance.
- Quality Assurance (QA) by Total Quality Management (TQM), medical and Nursing audits supported by computerization of all processes like store, pharmacy, finance and purchase section, inventory and administrative machinery would save money, time and transcend human error.
- Computer help should be utilized for clinical decision making for selecting suitable tests, proper interpretation, and accuracy in diagnosis and update management. Though computer can't be substitute for human brain, it is definitely useful as a neutral platform for unbiased analysis (Blobel, et. al.) to assist the physician against commission of error.
- Computerized prescription has the advantage of correct dose, duration, patient and pharmacy compliance.

D. Specifying Quality in Healthcare Service

Hospitals focus on creating physical, mental, and social environments that are good for both customers—patients, and staff. Externally managers concentrate on promoting the health and wellbeing of communities, and on reducing costs of the healthcare service (Ovretveit, 2000). A variety of studies have come to the conclusion that providers and patients add dimensions to measuring quality in hospitals. In this respect, public (stakeholders) opinion plays a vital role, because it provides an opportunity for providers to become aware of problems and quality characteristics from point of view of patients. Identifying the different levels of aggregation of healthcare services will help us to understand the perspectives from where each level will attend
and deal with the new concept of total quality management. We suggest here four levels of aggregation were identified each with certain quality characteristics. That is each with different degree of reliability, responsiveness, assurance, empathy, information and representation. 

1- Fundamentals of care: the basic level at which quality principles will apply across all areas of care, characteristics at this level may include, privacy, communication, responsiveness, and empathy.

2- Generate area of care: are those which are common to a limited range of specialties or conditions, such as cancer treatment services, day case surgery, and emergency care. Quality characteristics at this level would include acceptability, information, appropriateness and equity.

3- Clinical specialty: this level allows principles to apply to all patients cared for by a specialty area such as physiotherapy, radiology; quality characteristics in this level would include accessibility, efficiency, and reliability.

4- Individual condition or care group: at this level, care is considered for particular conditions or patient care group, such as diabetes, maternity. Quality characteristics would focus on technical issues an example of clinical appropriateness and effectiveness.

Hospitals are the core of the healthcare service, since they provide patients with all the complex medical procedures whenever needed. But, hospitals are facing sort of compound problem that is tightening and eliminating them from improving their services without sacrificing the quality of their services. This problem is the increasing cost of providing the healthcare service on one hand and competition on the other hand. Yet, there is a way of doing things without any sacrifice, a way of reorganizing things in order to increase the efficiency (the cost side of the story) and effectiveness (the quality) of hospitals, this way is through the adoption of TQM.

E. Current E-Health Scenario in India

Some of the examples for quality improvement initiatives by the government in association with software companies are

- Wipro provided Hospital Information System (HIS) to six hospitals of DMC. This HIS has 28 modules meeting the hospital needs, like Patient registration, demographic details, outpatient visits, doctors' appointment scheduling etc
- The Tamil Nadu Government has allotted Rs 5 crore to Tata Consultancy Services (TCS) to develop a suitable solution to maintain electronic medical records (EMR).
- The World Ahead Programme is an initiative launched by Intel to provide education and healthcare service in India. In the healthcare sector, Intel has carried out tele-health projects in Baramati, Maharashtra and Trivandrum, Tamil Nadu, and child health monitoring in Chandni Chowk, Delhi.
- HP healthcare solution and Amrita Technology worked together for system integration and doctor's training.

IV. Conclusions

By adopting innovative method and also by proper planning, quality of healthcare services can be improved to a great extend. By doing so, customer (patients) satisfaction can be improved and also doctors will save their precious time which can be utilized for higher professional growth. Finally good quality health care delivery at doorstep in low cost would safeguard national health leading to economic growth.

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