

## APPLICATION OF QUALITY MANAGEMENT IN HOSPITALS

**B. SUNIL KUMAR**

Research Scholar, Rayalaseema University, Kurnool, Andhra Pradesh

**Dr. B. V. NARASIMHAM**

Prof. Retired, Dept. of Management Studies, PES College of Engineering, Mandya, Karnataka

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### ABSTRACT

**Purpose:** The increasing demand for medical and healthcare services in the face of limited resources has brought out the need for Total Quality Management in Healthcare services in order to achieve higher standards of health. Recognizing the importance of embracing the corporate quality management program, this case analysis is designed to identify and assess the strategies and processes that may lead to successful application of Total Quality Management in health care services.

**Design/ Methodology/ Approach:** The present study is designed with the cooperation of various hospitals in Andhra Pradesh. The sample consisted of public and private hospitals. Research Instruments like survey questionnaire has been used for the collection of primary data. Patient satisfaction has been studied through this survey and we obtain an overview of healthcare services in the hospitals under study, which serves as the most appropriate starting point for self-assessment, evaluating the patients' perception of the quality of health service and can be a snapshot of the key influences on how hospitals operate and the key challenges they face. The data was analyzed using descriptive statistics and t-tests.

**Findings/ Conclusions:** The findings showed that the TQM elements have a significant impact on the perception of the quality of health services.

**Practical Implications:** This study would enable hospitals to examine the quality of care being delivered by them to the patients and the same can be used by Hospital administrators & medical professionals to assess hospital performance, and benchmark their performance against that of other competitive hospitals.

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### INTRODUCTION

One of the most important industries overall is the healthcare industry. The healthcare industry affects every living person in one-way or another. Most people don't realize how important this industry is until it affects their own lives. That is why it is so critical that the services offered by organizations in this industry are at the highest quality, are free of errors and ensure that patients will not face any detrimental consequences. For this reason, healthcare organizations are under intense pressure to contain costs while improving access and service for the growing and ailing population. The primary values of our healthcare system – equality of access, affordability, and quality patient care – are in risk due to severe money supply restraint, competition, and logistical issues. Total Quality Management (TQM) plays a big role in promising these results.

The increasing demand for medical and healthcare services in the face of limited resources has brought out the need for Total Quality Management in Healthcare services in order to achieve higher standards of health. Recognizing the importance of embracing the corporate quality management program, this case analysis is designed to identify and assess the strategies and processes that may lead to successful application of Total Quality Management in health care services. This study would enable hospitals to examine the quality of care being delivered by them to the patients and the same can be used by Hospital administrators & medical professionals to assess hospital performance, and benchmark their performance against that of other competitive hospitals.

## REVIEW OF LITERATURE

Many hospitals are turning towards TQM for cutting costs and overall improvement in the quality of the services provided. The concept became popular in the healthcare sector during the late 1980s (Garvin, 1988; Gulati and Shortell, 1997). In terms of Dr. Donabedian, one of pioneers in understanding approaches to quality, "The balance of health benefits and harm is the essential core of a definition of quality healthcare" (1990). Patient satisfaction is becoming increasingly important for the successful operation of private and public hospitals (Andaleeb, 1998; Yang, 2003; Cho et al 2004). Thus, TQM is both a philosophy and a new way of doing business for health care organizations. A number of factors contribute to the sustained interest and enthusiasm for TQM in health care.

**Philosophy of TQM:** The overall purpose of TQM is continuous quality improvement applied organization-wide, throughout all activities and functions and manifested in a fundamental and shared belief in total customer satisfaction (Weech-Maldonado, 1999). Everyone in the organization, from the board of directors, hospital administrator, physicians, management personnel and employees must adopt TQM principles and embrace a philosophy and culture where quality is key (Huq and Martin, 2001). Shifting to a TQM paradigm requires a new perspective regarding hospital administration in which, (a) participative management is emphasized, (b) strategic leadership is advocated and (c) explicit focus on external and internal customers is imperative (Carmen et al., 1996). The basic internal processes necessary for this paradigm shift within hospitals include: (a) changing organizational structure in order to better identify and improve processes, and (b) empowering employees and/or creating cross-functional teams to take charge of their work operations in a manner that encourages continuous learning as well as empowerment and personal responsibility (Huq and Martin, 2001). Satisfaction of Patient has become as a part of health outcome quality which also encompasses the clinical results, economic measures and health related quality of life (Heidegger et al., 2006)

The following section briefly reviews the specific factors and activities that are common to most TQM programs.

Factors influence TQM

- 1. Top management commitment:* Working with TQM and keeping up the quality improvements demands total commitment of the management (Dale et al 1997). The management must initiate planning for implementation, and participate in all works including evaluation of process and results, create a customer orientation and set clear and visible quality values to provide quality services.
- 2. Focus on customers:* A central core value in TQM is that all products and processes should always have customer focus. Quality should be valued by the customers and should always be put in relation to their needs and expectations.
- 3. Base Decisions on facts:* An important core value in TQM is to make decisions based on facts that are well founded and to not allow random factors to be decisive. This calls attention to the importance of knowledge regarding variation and ability to handle and control variation.
- 4. Focus on Processes:* The organizations have to focus on the process in implementing the services to customers. The goal of the process is to produce services which should satisfy customer.
- 5. Continuous improvement:* The external demands on an organization increasing continuously. Consequently, an organization needs to continually try to improve the quality of its product processes (Imai, 1997; Bergman & Klefsjo, 2003). The continuous process improvement leads to fewer defects, which results in an internal quality improvement (Dhalgaard et al, 1994)

6. *Everybody's Commitment*: The organization quality strategy will be successful if all the employees are engaged for customer satisfaction with a continuous improvement in the quality. This core value also includes suppliers, who over time will become partners by working with empowered employees to the benefit of the organization.

#### TQM Activities

*Organized Case Management*: Case management is a complex phenomenon. It can be defined as a clinician or clinical group that oversees a patient's plan of care across the episode or continuum. The goal of case management is to better manage care by predicting high-risk patient needs.

*Practice Guidelines/Critical Pathways*: Practice guidelines can be viewed as one mechanism for defining the work process and ensuring quality care. The goal of critical pathways is to use resources efficiently. The focus of these efforts is primarily on standardizing practice of plans of care for specific populations.

*Benchmarking*: Camp (1989) defines benchmarking as "the continuous process of measuring products, services, and practices against the toughest competitors or those companies recognized as industry leaders". When health care organizations use the tool of benchmarking, they measure, assess, and compare practices, processes, and outcomes with other organizations that are considered comparable with them in scope of service or have been highly recognized for best practices

*Disease State Management*: Disease state management (DSM) is a process of organizing care for a specific high-cost and/or high volume diagnosis, with the intention of improving outcomes and, when possible, lowering overall costs. DSM is a multi-step process which involves evidence-based clinical policies, an explicit implementation strategy and a data-driven feedback mechanism to objectively measure those aspects of care the program is designed to impact. For example The Govt. of Andhra Pradesh has implemented a first of its kind and flagship scheme named "Rajiv Arogyasri", to provide healthcare to the poor and the unreached, with an aim to achieve "Health for All" in "Arogya Andhra Pradesh"

#### RESEARCH METHODOLOGY

The study was initiated to explore one of the most important TQM factors mainly customer satisfaction in Public and Private Hospitals of Andhra Pradesh as a comparative study. The objective of the research was to determine how well 'Hospital A (Public Sector), Hospital B (Private Corporate sector)' and Hospital C (Private Corporate sector) were able to meet patient's expectations on the service quality dimension. When a patient comes to the hospital, looking for cure, care and comfort all that he expects is prompt attention and quick relief of pain from sympathetic and sensitive staff, in hygienic surroundings with a reasonable level of comfort and care at a cost he can afford. Hence patient friendly hospital would try to mitigate the suffering by providing the services that are acceptable, affordable and reliable with friendly staff, having a reputation for good quality services at a reasonable cost. A questionnaire was prepared using some such attributes in groups as under:

1. Availability/ Convenience
  - Time schedule of Hospital
  - Ease of admission/ Prompt to calls
  - Time spent in waiting, Exam. room & clinical tests
  - Emergency condition & Availability of Blood
2. Communication
  - With physician
  - Diagnosis of right illness & treatment
  - Affordability
3. Nursing
  - Individual attention given
  - Overall skill & Competency

## 4. Hospital Facilities

Pharmacy, Modern diagnostic Labs.  
Overall facilities of Medication Dept.  
Linen availability and House Keeping

## 5. Catering services

Quality and Presentation of food

The questions in each group were measured on a 1-5 point Scale. A pre-test was performed before the final data collection to determine if the questionnaire was well understood. The survey was conducted in Public & private hospitals of Andhra Pradesh through 100 Questionnaires distributed to patients. Data was collected over a period of two weeks. Data was analyzed by computing mean and percentages. The analyses were made on patients' perception of hospital services.

**RESULTS AND DISCUSSIONS**

The Computed data was tabulated as shown. The results of study indicated that all the attributes taken into consideration were statistically significant as  $p < 0.5$ .

Table: Comparing Hospital A, B &amp; C

SN	Description	Hospital A		Hospital B		Hospital C	
		Mean	Percent age	Mean	Percent age	Mean	Percent age
1)	Accessibility/ Availability/ Convenience: i.e.- (i) Time schedule of Hospital (ii) Ease of admission/ Prompt to calls (iii) Time spent in waiting, Exam room & test lab (iv) Emergency condition & Availability of Blood	23.98	47.96	43.4	82.67	44.5	89.00
2)	Communication: i.e.- (i) With Physician (ii) Diagnose right illness & treatment (iii) Affordability	21.02	95.55	21.5	97.82	20.9	94.82
3)	Nursing: i.e.- (i) Individual attention given (ii) Overall skill & Competency	9.46	59.54	13.88	86.75	14.12	88.25
4)	Hospital Facilities: i.e.- (i) Pharmacy, Modern diagnostic Labs (ii) Overall facilities of Medication Dept. (iii) Linen availability and House Keeping	10.04	71.71	11.98	85.57	11.40	81.43
5)	Catering services: i.e.- (i) Quality and Presentation of food	3.12	31.20	7.44	74.40	7.24	72.40

Taking Hospital-A (public education hospital) into consideration, the patients were very much satisfied with the healthcare services of Physicians in terms of appropriate diagnosis and treatment (95.55%). As most of the cases were considered under government's Rajiv Arogyasri Insurance Scheme, most of the patients (70%) had no qualms on cost of treatment provided. Almost all the patients were willing to visit the same physician in future also. The

hospital facilities were also rated best (71.71%) with regards to diagnostic and treatment equipments, operation theatres and pharmacy. However the hospital failed in providing hygienic environment as most of the patients were dissatisfied with the house keeping aspects. The nursing staff was moderately prompt (59.94%) in attending to patients needs (Both In-patient & Out-Patient). The patients also complained about the ward-boys posted in the out patient departments, long waiting periods, inefficient & cumbersome admission process (47.96%). The catering department too failed to provide patients with good and palatable food (31.20%). Here the aspect of training to lower level -seems neglected by the management. Teamwork between departments is found to be improper, for example, relation between front-desk and ward-boys. Scarcity of House-keeping staff burdens the available staff, and hence failure to provide visually clean and infection free environment. The catering committee failed due to improper monitoring, absence of dietician and lack of continuous quality control by hospital administration. The aspect of budget allocation/funding in Public sector hospitals plays a crucial role in providing quality healthcare, as any infrastructure work has to be finalized through separate organizations (e.g.: in Andhra Pradesh, The Andhra Pradesh Health & Medical Infrastructure Development Corporation-APHMIDC looks into these matters) which is again limited by budget.

With respect to Hospital-B the patients were happy with the overall services of the hospital like pharmacy, operation theatres, ICU, Lab., availability of blood, and emergency-care (85.57%). The house keeping services rated well. This quality service maintained through motivated and adequate work force and standardized cleaning disinfection procedures and good quality cleaning materials. Information about the facilities available, names of specialists, and there OP days, charges for consultation/ common investigation is available at the front-desk. The overall percentage for availability & convenience was found to be satisfactory (82.67%). Patient satisfaction level with the nursing services was also appreciably high (86.75%). This was seen to be possible through standardized policies, procedures and continuous training to enhance their technical proficiency. The catering/dietary services were quite acceptable to the patients (74.40%). The catering services has its quality plan and is continuously monitored by a dietician as its quality examiner, who makes arrangement for provision for therapeutic foods, after reviewing the patient's case file .

Coming to Hospital C, factors like availability and convenience are rated better in comparison to the other two hospitals (89.00%), as this hospital is located in the heart of the town, approachable conveniently without much of a transport problem. There is a system of alerting A and E department (by ringing a bell) whenever an emergency case arrives. Admission process is efficient with speedy documentation and arrangement for safe transfer of patient to the ward. There is adequate comfortable waiting space with provision for drinking water, toilets, public call booth at the reception, OPD, diagnostic areas, wards, ICU where waiting is anticipated. The patients seem satisfied with the professional efficiency (94.82%), there is a conscientious effort by the hospital to fully inform the patients/ relatives about the patient's disease, treatment options , the possible complications, likely expenditure, before admission/ any procedure so that they can make informed decisions. It is ensured that the final bill more or less conforms to the previously given realistic written estimate of expenditure. The overall hospital facilities (emergency-care, ICU, Operation theatres, Lab, availability of blood, and pharmacy) are rated at an average of 81.43% with the availability of life saving equipment, well trained sympathetic staff and implementation of standardized policies and procedures. The nursing care is seen comparatively better (88.25%), Efficient quality care by the nursing staff is ensured through implementation of standardized procedures (eg., recruitment, assignment of responsibilities, periodic performance reviews, training, and counseling, merit-based promotions). Good quality outcome in dietary services (72.4%) is maintained through a catering committee, dietician. The overall housekeeping, linen and laundry services were also well maintained.

Policy making decisions in private sector hospitals are taken and finalized by the board of directors unlike in Public sector where the decisions are to be approved at higher levels like Legislature, making the process cumbersome and delayed.

### CONCLUSION

This paper reveals better healthcare services provided in TQM implemented hospitals when compared to TQM non implemented hospitals through patient satisfaction survey. In B & C hospitals Quality Measurement included into systems of improvement that actually promote and create high quality, cost-effective care delivery. The results of this study thus make it clear that TQM program factors/ activities are extremely important to a hospital for ensuring quality and efficient healthcare delivery. To pursue this objective means identifying and assessing the blanks in system to provide better health care to the patients. Therefore, problem solving focuses on the process and joint responsibility rather than on individual output. This information is also helpful for the Public sector hospital that, for instance, has a limited budget and cannot implement every program factor/activities recommended for a model program (about 3 to 5% of the total budget is allocated towards health sector by the Government of AP annually):: (<http://budget.ap.gov.in>).

Main barriers reported in the literature and found to exist in the public sector hospitals include: the top management & Employee commitment, physician indifference to TQM, medical staff passively involved in TQM and inadequate information systems, and lack of time. Finally TQM has identified the importance of perceived quality in healthcare and offers some guidance as it has pursued complex research problems associated with this construct.

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