CHAPTER ONE

INTRODUCTION

The healthcare sector is one of the fastest growing areas of the economy of most of the developed and developing countries. The globalization and liberalization policies have significantly changed the healthcare scenario. The healthcare industry is constantly changing, requiring organizations to be agile enough to respond successfully to these changes. In India, the past few years have witnessed an increasing concern regarding the quality of healthcare services. The enlightened patients expect quality in healthcare services. Quality has been shown to be an important element in the consumers' choice of hospitals (Lynch and Schuler, 1990). Market and accreditation pressures, need to improve quality of healthcare and to reduce costs have motivated hospitals to implement Total Quality Management (TQM) philosophies and concepts.

In the healthcare environment, TQM is not just a programme with a finite beginning and end, but is a process, which evolves dynamic changes in the hospital. TQM, as a new paradigm, has been adopted to manage and improve the quality of healthcare services in many of
the Western and European countries in the past two decades.

Several researchers have asserted that successful implementation of TQM can result in significantly superior outcomes in healthcare organizations (Short and Rahim, 1995; Arndt and Bigelow, 1995; Zabada et al., 1998), such as: upgradation of service quality, improvement in health care quality and productivity, prevention of costly or fatal mistakes in medical treatment, reduction in the cost of medical treatment and satisfying both internal and external customers. Therefore, adopting TQM practices will not only help the financial crisis of the healthcare organizations, but also overcome many critical problems that they are currently facing (Short and Rahim, 1995). In India, till now, very few research studies have been undertaken to study the effectiveness of TQM in hospitals. This study has been undertaken to fill this research gap. The aim of this study is to examine the extent of implementation of TQM and its effect on hospital performance in hospitals.

Research Objectives

The specific objectives of the study were to:

- determine how well the hospitals in India are meeting the patients' expectations on the service
quality dimensions and to determine service quality scores by dimensions and overall service quality index

- investigate the extent of implementation of total quality management in healthcare services.
- examine the impact of total quality management practices on hospital performance results.
- identify the barriers to the successful implementation of total quality management in health care services.
- identify the measures that can strengthen the total quality management practices in health care services.

**Hypotheses**

The following hypotheses were formulated for testing in this study:

**H**₁: The patient's expectations of service quality in hospitals exceed their perceptions.

**H**₂: There exists a significant relationship between each of the following six TQM elements and hospital performance:

1. Leadership
2. Strategic Planning
3. Focus on Patients, Other Customers and Markets
5. Staff Focus

6. Process Management

$H_3$: There exist significant differences in the perceptions of TQM practices between executives and physicians.

$H_4$: There exist significant differences in the TQM practices between the ISO 9000 certified and non-certified hospitals.

$H_5$: There exist significant differences in the TQM practices between the private and public hospitals.

$H_6$: There exist significant differences in the TQM practices among the small, medium and large hospitals.

$H_7$: There exist significant differences in the perceptions of executives and physicians about the barriers to TQM implementation in hospitals.

Research Methodology

Sample

The present study was designed with the cooperation of fifteen hospitals in India. The sample consisted of seven multi specialty corporate hospitals, three super specialty hospitals, two missionary hospitals, and three teaching hospitals. Among these, five hospitals were ISO-9000 certified and ten hospitals were non-certified. Fourteen hospitals belong to the
State of Karnataka, and one hospital belongs to the State of Andhra Pradesh, India.

A systematic sampling design was used to draw the sample of five hundred patients on random basis. A convenient sample of two hundred and two executives and physicians was drawn from the sampling frame which consisted of the list of executives and physicians from the fifteen hospitals.

**Research Models**

Two Research Models were used in this study—the Service Quality Model and the TQM Model. A conceptual model of service quality developed by Parasuraman et al. (1985) was used to study the patients’ perception of service quality (Gap 5) in hospitals. This study utilized the model of Malcolm Baldrige Health Care Criteria (MBNQA, 2004). The structure of the MBNQA in healthcare is generally accepted as a model of TQM for healthcare organizations. The structural elements associated with TQM include Leadership; Strategic Planning; Focus on Patients, Other Customers and Markets; Measurement, Analysis and Knowledge Management; Staff Focus; Process Management and Organizational Performance Results. The organizational performance results represent the six areas of hospital outcomes,
namely- Healthcare Performance Results, Patient and Other Customer Focused results, Financial and Market Results, Staff and Work system Results, Organizational effectiveness results, Governance and social responsibility results.

In the present model, Organizational Performance Results have been measured in terms of hospital popularity, hospital reliability, patient satisfaction, easy absorption of technology, training & development, infection rate, mortality rate, morbidity rate, waiting time reduction, and cost reduction. The model established the causal relationship between TQM practices and hospital performance.

Research Instrument

Three research instruments were used for the collection of primary data. The hospital questionnaire was designed to obtain an overview of the hospitals under study which served as the most appropriate starting point for self-assessment and was a snapshot of the key influences on how hospitals operate and the key challenges they face.

The SERVQUAL questionnaire used in this study followed the basic five dimensions of the SERVQUAL instrument developed by Parasuraman et al., (1988). The five dimensions include tangibles, reliability,
responsiveness, assurance, and empathy. The TQM questionnaire was designed to investigate the practice of TQM and to examine the relationships between the six TQM elements and the hospital performance.

**Data Collection and Analysis**

The study was based on primary and secondary data. The secondary data were collected through hospital records, reports and brochures. Websites were also searched to collect secondary data. The primary data were collected through questionnaire and interview methods.

Data analysis consisted of descriptive statistics such as mean, standard deviation and tests of hypotheses such as correlation and analysis of variance (ANOVA). SPSS v 9.05 was used to analyze the data. Both the SERVQUAL questionnaire as well as the TQM questionnaire were subjected to reliability and validity tests and were found to be reliable and valid.

**Significance of the Study**

The expected contribution of this study is to provide an informative analysis of the hospitals that are currently practicing TQM. This study explores the experiences of hospitals, which have successfully
implemented TQM and the obstacles to TQM implementation. The results of this study would be of interest to healthcare service providers who already have implemented TQM or planning to implement TQM. The findings would improve the quality and productivity of healthcare services in India.

Limitations of the Study

The limitations of this research study should be kept in mind while interpreting the results and findings. The first limitation of this research study related primarily to the relatively small number of hospitals that have been covered mainly in two states in India. The results of this study confined to a random sample of in-patients and executives from the hospitals of these two states.

The second limitation is that the results of the study were based on subjective measures. Data have been collected from patients, executives, administration personnel, physicians and surgeons through questionnaires and personal interviews.

Outline of the Thesis

In the introduction chapter, the research problem is identified, the objectives of the study are recognized, the hypotheses are formulated, the
methodology adopted was described, contributions of the study to practice and research were summarized and finally the limitations of the study are addressed.

Chapter two reviews the relevant literature on total quality management practices in health care, its relationship with hospital performance, ISO 9000 certification and service quality in healthcare services. The obstacles to the implementation of TQM in health care are also reviewed.

Chapter three deals with the key definitions of quality, total quality management, and the essential elements and models of TQM.

The fourth chapter describes the meaning of health care quality, TQM in healthcare, and ISO 9000 certification in Health care. A detailed description of the SERVQUAL and MBNQA models are also presented.

The fifth chapter addresses the research methodology of the present study. The sample for the study, research models, research instruments, data collection and analysis, reliability and validity are discussed in detail.

Chapter six addresses the results of the patients' perception of service quality and TQM practices in the sampled hospitals. The effect of TQM practices on hospital performance measures was also examined. Results of TQM practices and hospital performance
results by stratification on the basis of profession, ISO 9000 certification, bed size of hospitals and type of hospitals are discussed and analyzed.

Chapter seven summaries the findings of the study. The Suggestions to hospitals regarding the successful implementation of TQM and to researchers for further research directions based on the conclusions of the study are offered. The chapter ends with the limitations of the study. Bibliography followed by appendices are presented at the end of the thesis.