Chapter III

THEORETICAL AND CONCEPTUAL FRAMEWORK
INTRODUCTION

This chapter presents a review of literature on customer focussed health service quality. An attempt is made to evolve a framework for application of this concept in the Indian health care system. The quality domains, the meaning of customer focus and the conditions needed for effective implementation are analyzed with a view to development of a framework for the present study. Conceptual Models and empirical studies that have contributed to development and testing of theoretical bases for health service quality have been reviewed in this chapter. Other empirical studies that have used the models and derived predictors or determinants of health service quality have been analyzed and quoted in the research findings and discussion chapter.

The main topics that have been covered include:

1. Rationale for quality service
2. Definition of consumer in healthcare
3. Dimensions and attributes of service quality
4. Characteristics of health services
5. Conceptualizing health care service quality,
6. Components of health service quality
7. Dimensions of health service quality
8. Theoretical models of satisfaction
9. Health service quality and patient satisfaction
10. Measurement techniques
11. Qualitative and quantitative approaches
12. Implementing service quality
13. Components and Design of the present study
INTRODUCTION TO QUALITY

The nature of quality has evolved from its inception as "fitness for use" (Juran et al, 1974)\(^1\), or "conformance to specification" (Crosby, 1980)\(^2\). It has been operationalized as a "multi-attribute product characteristic which can be expressed by a generalized overall rating which is based on multidimensional measurements that reflect rank ordering of preferences and their relative importance" (Monroe and Petroshius, 1973)\(^3\). Concepts like Total Quality Management and Continuous Quality Improvement had already become well accepted in product manufacturing organizations by the early eighties. The services sector came in for focus on quality much later than the manufacturing sector perhaps because of the intangible nature of services. This intangibility did not lend itself to conceptualization and measurement as easily or as objectively as tangible goods.

The book "Service America" established that quality service can be a powerful competitive edge. (Albrecht and Zemke, 1985)\(^4\). This was followed by "The Service Edge" – a book which chronicled America's 101 best service companies drawn from various industries including travel, hotels, health care, retailing, communications, electronics, financial, entertainment, etc. (Zemke and Schaaf, 1989)\(^5\). Various studies have brought out the quality domains in the area of health care. Studies have also shown the differences in customer focus and satisfactions from private and public health care systems.

3.1 RATIONALE FOR QUALITY SERVICE

The rationale for improving service quality in general includes:

- **Increased competitiveness:** Quality leads to profitability through increased sales or premium prices for the same quantity of sales. (Garwin, 1988)\(^6\) Service quality affects the repurchase intentions of both existing and potential customers. (Lewis, 1989)\(^7\)
• **Reduced costs:** There is a direct link between operating margins and quality of care. Higher quality care leads to improved productivity, meaning quicker patient recovery and more efficient use of resources, resulting in reduced costs per patient stay and increased profitability. (Harkey and Vraciu, 1992) ⁸

• **Professional standards:** to maintain the competence and integrity of the profession as a whole and to provide methods for ensuring standards of professional conduct and competence.

• **Consumer rights:** recognition of the right of consumers to participate in the development and implementation of change.

Health care economics has frequently assumed that a direct relationship exists between cost and quality (McKay, 1989)⁹ such that to improve quality, it is necessary to increase costs. Quality experts such as Deming and Crosby argue for an inverse relationship, reasoning that poor quality costs more in the long run than high quality. Fleming (1990) reported that researchers in hospital care have found mixed results suggesting a complex cost quality relationship rather than simply a positive linear one. Fleming found a cubic relationship between cost and quality. In the lowest and upper regions of the cost-quality function, the relationship was positive. An increase in quality was associated with an increase in costs. In the mid-region of the cost and quality relationship however, higher quality was associated with lower cost. He attributed this to the "learning curve" effect, in which a higher volume of services is associated with "fewer mistakes, fewer tests, and the choice of the more effective and less costly strategies of care." ¹⁰

The Profit Impact of Market Studies (PIMS) found consistently strong associations between product quality and profitability in manufacturing concerns primarily from increased sales of the higher quality product. The link between quality and profitability takes two routes: the first through
increased sales or premium prices and the other through lower costs due to improved efficiency. (Garvin, 1988) ¹¹

Harkey and Vraciu (1992) have adapted Garvin's argument for the hospital situation and proposed a Quality-Profitability model as shown in the following figure. The market gains from good quality start from patient and physician satisfaction, leading to the hospital developing a reputation for quality service and shown by patients' loyalty. As a result of this increased market share and good reputation, the hospital is able to command higher prices. Market share and price gains lead to higher profits. On the cost front, quality leads to higher productivity and lowers the costs per patient stay. This cost reduction leads to better profits. ¹²

**Figure 3.1 : Quality Profitability Model**

**Source:** Harkey and Vraciu (1992)
3.2 DEFINITION OF CONSUMER

In terms of service quality the concept of consumer is not unitary or homogeneous. Consumers can operate at three levels depending on their motivation and needs. (Ryan, 1995)\textsuperscript{13}

- A "\textit{customer}" is one looking for and selecting a service on the basis of personal access preference and perceptions of utility (eg attendance at a conveniently located medical centre for minor illness).
- A "\textit{client}" is one seeking professional advice and assistance on the basis of substantive needs (eg continuous attendance at a particular medical centre for ongoing advice).
- A "\textit{citizen}" is one seeking participation in problem definition, policy development, and implementation on the basis of structural, substantive and access requirements and a right to participate (eg health consumer groups involvement in practice reforms).

This study focuses on the first two levels i.e., customers and clients of the hospital facility.

3.3 DIMENSIONS AND ATTRIBUTES OF SERVICE QUALITY

Parasuraman, Zeithaml and Berry (1985) identified 10 generic attributes or dimensions that determine service quality:\textsuperscript{14}

1. \textit{Reliability}: the ability to provide the service on time, accurately and dependably
2. \textit{Responsiveness}: the promptness of service and willingness and ability to deal effectively with complaints
3. \textit{Credibility}: the extent to which the service is believed and trusted as evidenced by perceptions about company name, reputation, and characteristics of personnel
4. **Competence:** the knowledge and skill of the contact personnel and operational support personnel to perform the service effectively and the research capability of the organization

5. **Courtesy:** the politeness, respect, consideration and friendliness shown to the consumers, consideration for the consumers' property, and clean and neat appearance of public contact personnel

6. **Security:** freedom from risk and doubt regarding physical safety, financial security, and confidentiality

7. **Access:** ease of approachability and contact, accessibility, waiting time, convenient hours of operation, and convenient location of service facility

8. **Communication:** keeping consumers informed about the service in a language that they can understand, listening to the customers, explaining the service itself, tradeoffs between service and cost, and assuring the consumer that a problem will be handled

9. **Tangibles:** physical condition of the buildings and the environment and the condition of equipment, and appearance of personnel

10. **Understanding the customer:** trying to know the customer's needs and specific requirements, providing individualized attention, and recognizing the regular customer

In contrast to manufacturing, the customer is present in the delivery process of most services. This means that the perception of quality is influenced not only by the product or outcome of the service but also the service delivery process and the environment in which the service is delivered (Ghobadian, 1994)\(^{15}\). Three dimensions of service delivery are consistently identified in the literature (Steven Doessel, Lehtinen and Lehtinen, 1992)\(^{16}\).

- **Service structure** is the setting in which service is delivered and the related processes that support service provision - physical location, appearance of the site, price, competence, and behaviour of the support staff.
• **Service process** is the method by which service is delivered. This dimension is concerned with the interaction between the provider and the recipient of a service.

• **Service outcome** is the end result of service delivery.

### 3.4 CHARACTERISTICS OF HEALTH SERVICES

#### Intangibility: Health services are highly intangible and cannot be inventoried and tested before consumption. Consumers cannot infer the exact quality of the service provided until the service is already consumed and no longer available. Plotted on the tangibility-intangibility continuum, health services are categorized at the highest levels of intangibility (Shostack, 1977)\(^{17}\).

#### Credence versus Search Attributes: Health care services involve a higher proportion of experience and credence attributes relative to search attributes. While search attributes can be relatively easily assessed before purchase, experience attributes can only be inferred during or after consumption and credence attributes cannot be evaluated even after consumption has taken place. Affective rather than cognitive judgement is more likely to dominate the evaluation of the service delivery process if the number of experience and credence qualities increase relative to the number of search qualities, which is typically the case for healthcare services (Lutz cited in Vandamme and Leunis, 1993)\(^{18}\). However, to a large extent these more affective value judgements remain based on concrete attributes and experiences with the service delivery process. This underscores the importance of the service delivery process in studies of service quality.

#### Variability: Health services are characterized by a great degree of variability and the services offered are highly judgmental and individualized in a labour-intensive organizational framework. Variations in service performance can be expected across different providers,
employees and even within an employee depending on skills, mood, gender of patient and provider, etc. Female healthcare workers are perceived to show more empathy, while males show more confidence. Even aspects of health care that could lend themselves to some standardization (like diagnostic procedures) have no prescribed norms in India.

Variations in service provided depend on affordability, and demand and supply conditions. In situations where the supply of physicians is grossly inadequate, the primary concern of the patient is to be able to reach any physician, while that of the physician is to get through an overwhelming daily workload with woefully inadequate ancillary and technical support. "The place where I now work is a tertiary referral and training centre at the Faculty of Medicine and Black Lion Hospital, Addis Ababa University, Ethiopia. In reality I am engaged in primary, secondary and tertiary work all mixed together, because there is no effective referral system. Facilities are still rudimentary, the physical condition of the hospital is deplorable, even simple tests are often unreliable and there are no intermediary facilities between the patient and myself. My junior colleague and I see 45 patients or more in the morning at the weekly referral follow-up clinic. We recently calculated that the average net doctor-patient contact time was a little over 8 minutes per patient. In such a situation we try to concentrate on the essentials. While we attend to the patient in front of us our innards are in knots over the crowd still waiting to be seen. Occasionally on the wards we strike the ideal patient-doctor heart-to-heart tune, but such moments are few and far between." (Abdulkadir, 1995)

This mirrors to a large extent the situation prevailing in the public sector hospitals in India too. Virender et al (Punjab, India 1999) reported a variation in mean examination time of patients depending on their time
of arrival at the outpatient clinics of hospitals attached to the Government Medical College, Amritsar, Punjab. Patients arriving between 8-9 AM were seen for 12 minutes, 9-10 AM for 9.43 minutes, 10-11 AM for 6.83 minutes, 11-12 Noon for 6.21 minutes, 12Noon -1 PM for 7.12 minutes, and 1-2 PM for 5 minutes. Narayan and Bansal (1983, 1984) in two studies of outpatient care provided at the Primary Health Centres (PHC) of Pondicherry used the non-participant observation technique and found that average time spent by medical officers for seeing old cases was 53.8 seconds and for new cases 56.9 seconds.

- **Inseparability and Consumer Involvement:** Health services are characterized by inseparability or inter-relatedness and require the consumer to play an active role in receiving service of good quality. "Some kinds of behaviour by patients and families can be of value to health care providers: desired patterns of behaviour have to be rewarded by protection and enhancement of values important to patients and families.

1. **Giving information:** identifying deep personal concerns, divulging full purpose for coming, identifying specific expectations so that providers can act upon them, recounting the full circumstances of illness and scope of symptoms, giving insights on diagnosis, etiology, therapy, prognosis to be ratified or improved by providers, offering complete, honest and specific feedback on service encounters, including complaints.

2. **Being a "good" customer during service:** keeping appointments, following instructions, becoming an active partner in the care process, making choices among options offered, signing consent and insurance forms, self-service when appropriate and possible, and relating positively to care givers.
3. **Post-encounter behaviour:** compliance with behavioural advice, obtaining follow-up services and prescriptions, returning for follow-up care, communicating positive word-of-mouth information to others, and referring family members and friends.

Health care providers have to put in some extra effort on effective customer management as it can produce significant value to the organization in terms of reduced staffing requirements, lower costs, quicker recovery time, shorter length of hospital stay, and thus, better financial results." (MacStravic, 1988)  

There is more than cost at stake. The quality of care itself can be improved by enlisting the patient as an active partner in care, not merely as a passive recipient of a service. There are benefits to the care process by an informed, participatory patient. The maintenance of the patient's integrity as a self-confident person is essential in healing. "Physicians diagnose and treat; if anyone heals, it is the patient." (Levin, 1995)  

Czepiel (1980) however cautions that not all customers will be able to play the same roles; many may lack the knowledge, physical ability, skills and motivation to do so. (cited in MacStravic, 1988)  

Geldenhuys (1995) distinguishes between the expectations of the advantaged, affluent citizens and the disadvantaged, rural poor. Describing the equity and access to health care in the Republic of South Africa, he brings out the role of traditional healers in primary health care. "It is only when this line of treatment fails that the rural patients seek the help of modern doctors. At this stage, patients are often very ill, as well as uninformed, and in no condition to make demands or enter into discussions about their treatment. They expect surgery or medication and hope someone will be able to explain to them in their own language what is wrong with them and what the treatment entails." On the other hand, the expectations of the advantaged, mainly urbanized population are shaped
by the knowledge and information gained from the press and audiovisual media and there is no blind acceptance of a doctor's treatment. Nonetheless, a sick person who consults a doctor is in a vulnerable position.26

The privileged position of healers in any society can be attributed to what is known as the "shaman factor" whereby a sick person unconsciously confers on the healer a spiritual aura so that the vital elements of hope, faith and trust can play their part in the therapeutic process. This shaman factor resides to some extent in all those who put on the mantle of healer, in orthodox and alternative medicine alike. (Thong, 1995) 27

In most health care situations, the consumer is expected to play a subordinate role. "The environment is responsible for dictating so much of what happens to the patient – when and what to eat, what to wear, when visitors can come, when to take medicine and when the patient can leave. In the process, the patient's perspective can be ignored." There is more reinforcement for the patient's compliance than for involvement. (Eisenberg, 1997) 28

Patient participation should, however be encouraged by doctors, as "the power of doctors and patients working together greatly exceeds the sum of the power each has when acting alone." (Pritchard, 1993) 29

The "patient circle" has a role in generating a workable methodology for incorporating consumer perceptions, problem solving and image building. (Tomes and Chee Peng Ng, 1995) 30

There is however a basic problem. A keyword search using standard search engines on the Internet reveals that the terms involvement, participation, co-operation, and responsibility all bring out the same results. The terms seem to be used synonymously in the health care situation.
3.5 CONCEPTUALIZING HEALTH SERVICE QUALITY

According to King (1985) there are several theories that attempt to explain how customers evaluate service quality:31

- **Core versus Secondary Service:** There are two sides to the customer's perception of service quality: satisfactory performance of the primary or core portion of the desired service, and satisfactory performance of the secondary or surrounding services. High performance in the secondary functions cannot compensate for poor performance of the primary function.

- **Technical versus Functional Quality:** A service consists of hard functions (i.e., the technology of the service) and soft functions (i.e., the manner in which the service is performed). Gronroos (1983) terms these two dimensions as "technical quality" which relates to what is delivered, and "functional quality" which relates to how the service is performed and delivered.32 A breakdown in the technology can be managed, but the effects of poor interactions with the service provider cannot be overcome by technically competent performance.

- **Moments of Truth:** The service transaction is a process and a customer's evaluation can change over the course of the encounter. A service encounter is a series of "moments of truth" or episodes, which contribute to the ultimate impression of quality. The term "moment of truth" has been coined and defined by Jan Carlzon, president of Scandinavian Airlines as "any episode in which the customer comes into contact with any aspect of the organization and gets an impression of the quality of its service." (Albrecht & Zemke, 1985) 33

- **Perceived Risk:** The degree of perceived risk and the related cost of the service owing to the intangibility of the service and the necessity of the customer's personal participation in the performance of the service influences the evaluation of the service. A higher risk is perceived when
a customer does not know what to expect from a service. More stringent standards of evaluation are applied to high risk or high cost services.

The quality of the interaction between the care provider and the care recipient is critical in health care. King calls this factor the “quality of behavior”. Health care is a humanistic profession and Hochschild refers to this type of labour as “emotional labour” to distinguish it from physical and mental labour.

Consumers frequently do not distinguish between the art and technical aspects of care. (Ware et al, 1975) 34 Quality, from the health professional’s perspective, is technical in nature, and is operationalized in terms of three constructs – structure, process and outcome. However, consumers define service quality in terms of functional quality or expressive-interpersonal and environmental factors rather than technical quality. Further, technical quality perceptions depend on functional quality perceptions. (Bopp, 1990) 35 Quality consists of two interdependent parts: quality in fact and quality in perception. The first involves meeting the provider’s own expectations (conformance to standards), the second, meeting the expectations of customers. (Omachonu, 1990) 36 Technical care is the adequacy of diagnostic and therapeutic processes and the art of care as the milieu, manner and behavior of the provider in delivering the care and in communicating to the patient. (John, 1991; Babacus and Mangold, 1992) 37 - 38. Further, since technical quality is a function of functional quality, hospitals should ultimately concentrate on assessing patients’ perceptions of functional quality. (Babacus and Mangold, 1992) 39 There are micro and macro definitions of quality. Micro quality is defined in terms of actual service firm performance from a short-term perspective and
macro quality in terms of a long-term attitude. There are three major components of quality in health care: Conformance quality or doing things right, Design quality or simplicity and Fitness-of-use quality or matching / surpassing customer expectations. (Woodside, 1991) 40

Service quality is defined as "initiatives that aim to engender a customer focus in an organization or activity in order to drive organizational change and improve performance." (Trosa, 1994) 41

There is a hierarchy of quality objectives in the health care sector: risk management (make procedures safe), resource management (develop cost-effective treatment methods), managing patient tangibles (nutrition, hospital amenities, etc.,) and managing patient perceptions (tracking the total patient experience). (Jirsch, 1993) 42

A mix of the patient's perspective and the clinical perspective is recommended. Many hospitals consider assessment of quality from the patient's perspective to be insulting. There is a conflict between professionals who see the key for quality of patient care to lie in the clinical areas rather than in the areas related to patient comfort and convenience. From the patients' point of view, Patients' Charter, patient education and involvement, and assessment of patient satisfaction can be done. From the clinical point of view, Morbidity / Mortality statistics, Utilization Reviews – waste identification, rational drug use, rational and relevant use of radiology and other procedures, Treatment Standardization – development of critical clinical paths giving activities and prescribed time for each activity, need to be analyzed. Hospitals have to be benchmarked on their performance on these parameters. (Pickering, 1997) 43
COMPONENTS OF HEALTH SERVICES QUALITY

Avedis Donabedian's structure/process/outcome framework (1980) has provided a comprehensive typology of quality dimensions that have been used time and again by researchers attempting to analyse health care service quality.44

Figure 3.6: Structure-Process-Outcome Framework

<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>PROCESS</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL</td>
<td>Equipment Staff (numbers, qualifications, expertise) Training Teaching affiliation Size, volume, ownership Governing board</td>
<td>Accuracy of diagnosis Appropriateness of treatment Skills Plans and sequencing Practice guidelines</td>
</tr>
<tr>
<td>INTERPERSONAL</td>
<td>Technology – impact on roles &amp; relationships Building design Presence of patient advocates, social workers, translators, ethics committees</td>
<td>Collegiality Communication Honesty with patients &amp; families Sensitivity &amp; compassion in delivery of care</td>
</tr>
<tr>
<td>AMENITIES</td>
<td>Cleanliness Presence of conveniences Ease of access Appearance of staff</td>
<td>Efficiency in patient flow Short waiting periods</td>
</tr>
</tbody>
</table>

Source: Donabedian (1980)

The matrix clarifies the interaction of structure, process and outcome with the technical, interpersonal and environmental / physical elements in health care service delivery. Structure includes the stable factors such as ownership, physical facilities, personnel, etc. The process refers to the transactions between employees and customers. Outcomes focus on the end results of the structure/process interaction.
There is a fundamental functional relationship among the three elements. Structural characteristics of the settings in which care takes place have a propensity to influence the process of care so that its quality is diminished or enhanced. Similarly, changes in the process of care including variations in its quality will influence the effect of care on health status, broadly defined. Quality measurement must include a recognition of what is feasible given the constraints of the current system, be they financial restrictions, medical knowledge limitations, or technological imprecision. Rendering high quality care necessarily includes recognizing one's limitations in terms of equipment, personnel, and financial resources. (Donabedian, 1980)  

There are three components of service quality: Institutional quality – corporate image, Physical quality – surroundings, equipment, food and process outcome, and Interactive quality – interaction between the medical contact person and the patient. Lehtinen and Laitamaki (1985)  

Patient involvement in care such as maintaining their appearance, self-administration of medications, explicitly stating their expectations, seeking information and voicing their complaints can promote satisfaction. Patient involvement must be included as a dimension in studies of health care quality. (MacStravic, 1988)  

There are four components: the curing component, the caring component, the access component and the physical environment component. (John, 1989)  

3.7 DIMENSIONS OF HEALTH SERVICE QUALITY  

1. SERVQUAL Dimensions: The SERVQUAL scale developed for measuring service quality uses five dimensions: reliability, tangibles, responsiveness, assurance and empathy (Parasuraman, Zeithaml and Berry, 1988)  

While reliability is largely concerned with the service
outcome, tangibles, responsiveness, assurance and empathy are more concerned with the service process. Whereas customers judge the accuracy and dependability (i.e., reliability) of the delivered service, they judge the other dimensions as the service is being delivered. SERVQUAL has been empirically tested by many researchers in the health care setting and modified by adding or deleting items with reference to their study environment. While the five dimensions have been used, researchers have included some additional dimensions.

Elliot, Hall and Stiles (1992) found competence, credibility, communication, and facilities for curing like up-to-date equipment and procedures to be important to consumers and amenities to be of relative unimportance.\textsuperscript{50}

Tomes and Chee Peng Ng (1995) include mutual respect, dignity and patients’ understanding of illness.\textsuperscript{51}

Patient satisfaction measures are clientele and facility specific. Psychiatric patients’ satisfaction includes opportunities for patient socialization with staff and other patients as important to perceived quality. Elbeck (1992)\textsuperscript{52}

2. **RESPONSIVENESS**: Murray and Frenk (2000) cite various studies to bring out the meaning of responsiveness with respect to health care. Responsiveness has two major components: respect for persons and a client orientation.\textsuperscript{53}

*Respect for persons* captures aspects of the interaction of individuals with the health system that often have an important ethical dimension. Respect for persons has three aspects:

- **Respect for dignity** includes respect for basic human rights, courtesy in interactions, and sensitivity to potentially embarrassing moments of clinical interrogation or physical exploration. Dignity is defined as the right of a care seeker to be treated as a person in their own right rather
than merely as a patient who due to asymmetric information and physical incapacity has rescinded his/her right to be treated with dignity. (Amala de Silva, 2000)\textsuperscript{54}. This includes:

a) the safeguarding of human rights such as the liberty to free movement even for individuals who have leprosy, tuberculosis or are HIV+

b) treatment with respect by health care staff;

c) the right to ask questions and provide information during consultations and treatment;

d) privacy during examination and treatment

- **Respect for individual autonomy** is the right that individuals when competent, or their agents, should have to choose what interventions they do and do not receive. Autonomy is self-directing freedom. In the context of the study quoted above (Amala de Silva, 2000) it is defined as four rights:

a) The right of an individual to information on his/her disease and alternative treatment options (this facilitates informed choice)

b) The right to be consulted about treatment

c) Informed consent in the context of testing and treatment

d) The right of patients of sound mind to refuse treatment

The study cites four models in relation to autonomy. The first the paternalistic model has the health care provider making all decisions on behalf of the patient, since the provider is considered to be better informed this is considered to be optimal. The second model termed the informed decision making model, imposes the need for information dissemination on the provider and the responsibility of decision making on the patient. The professional agent model, has the patient willingly foregoing the right to decision making, though well informed, through voluntarily and explicitly transferring the decision making task to the provider. The final model
termed the *shared decision making* model focuses on the sharing of both information and decision making between the patient and the provider, including the determination of preferences (Charles, Gafni and Whelan, 1997) 55. While these models are clearly demarcated in reality many doctor-patient relationships are likely to be a combination of these different approaches, varying by disease, patient profile and the inter-personal dynamics of the dyad.

- **Respect for confidentiality** of personal health information, privacy and individual control over personal information. This would involve:
  a) conducting consultations with the patients in a manner that protects their privacy
  b) safeguarding the confidentiality of information provided by the patient, and information relating to an individual's illness, except in cases where such information needs to be given to a health care provider, or where explicit consent has been gained.

The second component called "**client orientation**" includes four aspects of consumer satisfaction: 56

- **Prompt attention** to health needs, physical, social and financial access. Prompt attention has been defined to consist of three characteristics:
  a) Patients should be entitled to rapid care in emergencies
  b) Patients should be entitled to care within reasonable time periods even in the case of non-emergency health care problems or surgery so waiting lists should not cover long periods.
  c) Patients seeking care at healthcare units should not face long waiting times for consultations and treatment.

Showing respect for peoples' time and feelings is the issue at stake rather than providing urgent medical care.
• **Basic amenities** such as clean waiting rooms, clean surroundings, regular procedures for cleaning and maintenance of hospital buildings and premises, adequate furniture, sufficient ventilation, clean water, clean toilets, clean linen, healthy and edible food in hospitals.

• **Access to social support networks** by making services available near the individual's family and community. Procedures in the provision of inpatient health care should allow:
  
a) regular visits by relatives and friends
  
b) provision of food and other consumables by relatives and friends, if not provided by the hospital
  
c) religious practices that do not prove a hindrance to hospital activities or hurt the sensibilities of other individuals

• **Choice** of institution and individual providing care depending on the gender of the patient and provider, the right to expect continuity in respect of persons providing care, and the right to seek a second and/or specialist opinion.

3. **ACCESS**: The definition of the access dimension as proposed by Penchansky and Thomas, is the degree of fit between the clients and the healthcare system on the five dimensions of availability, accessibility, accommodation, affordability and acceptability (cited in Vandamme and Leunis, 1993) \(^{57}\).

• **Availability** is the relationship of the volume and types of existing services (and resources) to the clients' volume and types of needs.

• **Accessibility** is the relationship between the location of supply and the location of the clients.

• **Accommodation** is the relationship between the manner in which the supply resources are organized to accept clients (appointment systems, hours of operation, telephone services) and the clients' ability to
accommodate to these factors, as well as the clients' perception of their appropriateness.

- **Affordability** is the relationship of prices of services and providers' insurance or deposit requirements to the clients' income, ability to pay and existing health insurance.

- **Acceptability** is the relationship of clients' attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to providers' attitudes about acceptable personal characteristics of patients.

3.8 **THEORETICAL MODELS OF SATISFACTION**

1. **Expectation Fulfillment Model**: Linder-Pelz, 1982

This model predicts experience that is congruent with expectation will result in satisfaction and that which differs will result in dissatisfaction. Satisfaction is a construct that can generally be examined in two distinct ways: a) as a dependant variable which is determined by patient and service characteristics, and b) as an independent variable which is predictive of subsequent behavior.

Linder-Pelz (1982) through content analysis of satisfaction studies proposes five patient social-psychological variables as probable determinants of satisfaction with health care:

- occurrences (individual's perception of an event),
- value (evaluation in terms of good or bad of an attribute or aspect of a health care encounter),
- expectations (belief about the probability of certain attributes being associated with an event or object, and the perceived probable outcome of that association),
• interpersonal comparisons (comparing with similar events experienced or known by the person),
• entitlement (individual's belief that he/she has proper accepted grounds for seeking or claiming a particular outcome)

She concludes that expectations and perceived occurrences make independent contributions to satisfaction rather than satisfaction resulting from an interaction between expectations, values and occurrences.

2. Zone of Tolerance Model: Parasuraman, Berry and Zeithaml (1991) 59
Consumers use two different comparison norms for service quality assessment: "desired service" (the level of service a customer believes can and should be delivered) and "adequate service" (the level of service the customer considers acceptable). This model introduces the concept of zones of tolerance to explain why satisfaction levels vary widely depending on the concept being evaluated. It argues, for example, that while quality of food is important it is likely to have a larger zone of tolerance and be at a lower desired level of service (b) than the reliability of a particular treatment regime (a). The importance of this model lies in distinguishing between expectations of outcome and process.

Oliver (1993) has proposed a composite model that offers a way of considering the relationship between the various components of satisfaction. This cognition affect model of satisfaction has the disconfirmation paradigm placed between the preconditions of expectations and attribute performance and the outcome of satisfaction. Expectations have two components: a probability of occurrence and an evaluation of the desirability or undesirability of the occurrence. Both are necessary because it is not clear whether consumers desire some attributes. The
direct link between attribute performance and satisfaction is also recognized as important. The affect domains, both positive and negative, are seen as other intermediaries between both attribute performance and attribution and satisfaction outcome. Equity is posited as a further distinct contributor to satisfaction, unrelated to affect or other cognitive components.


   Individuals enter into each service transaction with an *initial set of expectations* about what "will" and "should" occur on each of the dimensions of service. These initial expectations and the actual delivered service then lead to cumulative perceptions of the delivered service on each dimension, as well as *updated expectations* for each dimension of what "will" and "should" occur in future transactions. Finally, perceptions of the dimensions of service contribute to an overall assessment of the level of service quality, which in turn leads to behavioural outcomes.


   This model links the 'actual' or 'objective product performance' and the perceived product performance with expectations ranging from low to high. This model suggests that when perceptions of attribute performance differ only slightly from expectations there is a tendency for people to displace their perceptions towards their expectations, which is termed the assimilation effect. However if there is a wide disparity between perception of attribute performance and expectations, individuals tend to exaggerate the difference, resulting in a contrast effect. This model can be used to
explain the phenomenon that there is little variance in satisfaction measures, except under extreme circumstances.

6. **Assimilation-Contrast Model of Satisfaction:** Thompson and Sunol (1995) 63
   This model combines the assimilation-contrast model of perceptions with the zone of tolerance model. Unlike Anderson, they do not use the concept of objective performance, arguing that service users always judge services in perceptual terms. Satisfaction and dissatisfactions are defined under this model of the dis-confirmation paradigm as situations where perceptions exceed predicted expectations.

7. **Desires Congruency Model Of Satisfaction:** Spreng, MacKenzie, and Olshavsky (1996) 64
   Overall satisfaction is an affective state in reaction to a product or service experience that is influenced by a consumer's satisfaction with the product itself (attribute satisfaction) and with the information used in choosing the product (information satisfaction). Attribute satisfaction and information are themselves produced by a consumer's assessment of the degree to which a product's performance is perceived to have met or exceeded his or her desires (desires congruency) and expectations (expectations congruency).

### 3.9 HEALTH SERVICE QUALITY AND PATIENT SATISFACTION
The literature contains six distinct paradigms to explain consumer satisfaction and determine what is to be measured:

- **The Dis-confirmation Approach:** Satisfaction can be conceptualized as a performance evaluation, dis-confirmation of expectations, or an affect based assessment. Quality is measured by the extent to which the services delivered meets or exceeds the customer's expectations:
\[ Q = \sum (P_i - E_i) \] (Parasuraman, Zeithaml and Berry, 1988) \(^{65}\). They developed the SERVQUAL scale for measuring service quality based on this paradigm. The disconfirmation paradigm predicts that a consumer's expectation of quality will be confirmed when the service performs as expected, will be positively disconfirmed when expectations are exceeded, and will be negatively disconfirmed when expectations are not met. Perceived quality is satisfactory when expectations are confirmed (perceptions match expectations), ideal when expectations are positively disconfirmed (perceptions are greater than expectations), and unacceptable when expectations are negatively disconfirmed (perceptions fall short of expectations) Oliver, 1977 \(^{66}\); O'Connor et al, 1991 \(^{67}\). This follows from the definition that it is not the direct level of services provided, per se, which determines service quality but quality is the congruence of consumers' expectations and perceptions (Lewis and Booms, 1983) \(^{68}\).

- **The Performance Perception Approach:** Conceptually patient satisfaction is distinguished from service quality by defining perceived quality as the evaluation of a hospital experience as determined by perceptions of the hospital performance. Perceptions of hospital performance, when mediated by patient expectations coming into the service encounter result in perceived quality (John, 1992) \(^{69}\). A disconfirmation measure can only be that of satisfaction and service quality should be operationalized by measures of service firm performance only. Therefore, using only the performance sub-scale of SERVQUAL, called SERVPERF, is recommended (Cronin and Taylor, 1992) \(^{70}\). Babacus and Mangold (1992) supported the performance measure rather than the disconfirmation format and also empirically tested the SERVQUAL dimensions in healthcare settings. \(^{71}\)
The Normative Deficit Approach: Quality is conformance to standards or minimum requirements. Service quality is judged against standards covering professional conduct (the way the service is delivered), technical competence (the necessary skill, knowledge and information to perform the service) and tangibles (the equipment used and the environment in which the service is delivered).

Expectations derive from consumer reliance on standards that they believe a product should offer. These standards have been distinguished from the typically defined expectation concept by calling them experience-based norms. Experience based norms reflect not a prediction of performance, but desired performance in meeting consumer wants and needs. These norms are linked to the level of performance that consumers believe can be achieved for service products. Therefore it is likely that consumers recognize limits for levels of performance through their acquaintance with known or similar products (Cadotte, Woodruff and Jenkins, 1987 cited in O'Connor et al, 1991) 72. Lewis (1989) reinforces that the customer's satisfaction with the service is determined by the customer's perception and not by the perceptions of service providers. 73

Desires-Expectations Congruency Approach: Satisfaction arises when consumers compare their perceptions of the performance of a product or service to both their desires and expectations. This comparison process produces not only feelings of satisfaction with the product or service, but also feelings of satisfaction with the information (advertising, packaging, salesperson communications) on which their expectations are based (Spreng, MacKenzie and Olshavsky, 1996) 74. This approach criticizes the logical inconsistency of the expectations model in predicting that a consumer who expects and receives poor
performance will be satisfied, leading to a mismatch between satisfaction and quality measures.

- **The Composite measure approach:** Overall satisfaction is the result of satisfaction with the individual attributes or components of the product or service (Swan et al, 1985)\(^75\). Overall satisfaction with care is viewed as a linear additive function of the sum of the various components of satisfaction (Neumann and Neumann, 1984)\(^76\) such as interpersonal manner, technical quality, accessibility, finances, or the physical environment (Ware et al, 1983)\(^77\). Quality is a measure of the extent to which the intended service outcomes are being achieved (Trosa, 1994)\(^78\). Quality of health care from the patient's perspective is operationalized as the product of importance and (perceived) performance according to the formula: \(Q_{ij} = I_{ij} \times P_{ij}\). The quality judgement (Q) on a health service (\(j\)) by an individual patient (\(i\)) is equal to the importance score (\(I\)) multiplied by the perceived performance score (P) (van Campen et al, 1998)\(^79\).

- **The Equity Theory:** An individual evaluates his "inputs into" versus "outputs derived" from a given situation relative to those of another, where this other may be a person, a class of people, an organization, or the individual relative to his experiences from an earlier point in time (Evans, 1983)\(^80\). Consumer inputs may include time, travel, price paid or relevant contributions of the consumer to the consumption process. Price is a key influence on consumer expectations. Customers believe that the more they pay, the better the service should be, although they do not believe that a low price is a legitimate excuse for poor service. (Parasuraman, Berry and Zeithaml, 1991)\(^81\) Outcomes involve the various aspects of the product performance as well as the purchase
experience. When inequity exists, the individual will experience dissatisfaction and be motivated to restore equity by changing his inputs, or influencing outcomes by means of complaints, lawsuits, or refusal to repurchase.

**Expectations:** From a review of literature, Thompson and Sunol (1995) cite four types of expectations: 82

1. **Ideal:** Similar to aspirations, desires or preferred outcomes, they may be unrelated to what is reasonable / feasible and / or what the service provider tells the customer to expect (Boulding, Kalra, Staelin, and Zeithaml, 1993) 83.

2. **Predicted:** Realistic, practical or anticipated outcomes that result from personal experiences, reported experiences of others and sources of knowledge such as the media (Zeithaml, Berry and Parasuraman, 1991) 84. This has also been termed *adequate service levels.* Customers who gain sophistication with more experience have higher expectations.

3. **Normative:** Expectations that are based on what should or ought to happen (Tse and Wilton, 1988) 85. Desired service expectations may also rise because the expectations of an affiliated party rise (Parasuraman, Berry and Zeithaml, 1991) 86. The affiliated party may be the customer's customer, or a superior. The existence of better technology may also raise expectation norms.

4. **Unformed:** the situation that occurs when individuals are unable or unwilling for various reasons to articulate their expectations, which may either be because they do not have expectations, have difficulty expressing their expectations or do not wish to reveal their expectations due to fear, anxiety or conforming to social norms. This could also happen when consumers do not have enough information and/or
inadequate capacity to process the information as in the case of complex and highly technical products and services.

The benefits of measuring patient satisfaction have been increasingly acknowledged in the health care sector. Health care service providers are realizing that to a patient, now re-christened 'customer' or 'client', the caring elements are as important or even more so, than the care elements. While customers feel competent to evaluate the quality of caring or the way they are treated personally, they are less able to judge the way they are treated medically. The 'feel good' qualities have taken precedence over the 'do good' qualities of health care service to the extent that the concept of 'hospital as hotel' has gained ground. The focus on sick 'people' and their quality of life is becoming more important than the focus merely on the disease. Weatherall (1995) supports a revision in the pattern of medical education, emphasizing on development of basic skills like communication, attitudes like empathy, kindness and humanness, in addition to clinical competence. "Few people would disagree that two years spent in the company of a corpse is not the most imaginative introduction to a profession that, more than any other, needs to develop the skills of talking to distressed people." 87

Patient satisfaction is becoming increasingly popular as an indicator of the quality of health care services, including pharmaceutical services. "A satisfaction measure should have a theoretical base on which the measure's validity can be assessed. The measure chosen must fit the context of an overall research process, and the researcher must have a clear idea of what is to be measured. A large pool of items, or questions, for potential inclusion in a patient-satisfaction questionnaire can then be generated. No single standard measure of patient satisfaction is applicable to all pharmacy situations. Researchers should either use an existing
measure with demonstrated reliability and validity or develop a new measure by using a systematic process." (Schommer and Kucukarslan, 1997) 88

Affective judgement will prevail over cognitive judgement in patients' evaluations of healthcare services. However, to a large extent the affective value judgements remain based on concrete attributes and experiences with the service delivery process. Vandamme & Leunis (1992) 89

Quality has taken on a multifaceted scope based more on perceptual as opposed to objective measures. The scope of quality measurement has witnessed a shift from a bias reflecting professional consensus (standard setting) to a shared expression that includes the user's real and perceived expectations of quality. Satisfaction is composed of a set of criteria that are closely tied to a particular health care setting and must answer the question: "what is satisfaction to my patients?" Elbeck (1992) 90

3.10 MEASUREMENT TECHNIQUES:

A range of techniques have been used including analysis of complaints made by patients and/or relatives, focus group interviews following discharge, postal and telephone surveys, self-administered questionnaires, face-to-face interviews and critical incident analysis. Identification and analysis of the moments of truth in hospital settings can also give valuable insights.

- **Patient Questionnaires**: The satisfaction measure must fit the context, as "no single measure of patient satisfaction is applicable to all health care situations. Researchers must generate a large pool of items, which should be subjected to review by experts for relevance and completeness. A measurable format has to be developed for each item (e.g., Likert scale)" (Schommer and Kucukarslan, 1997) 91. Most of the studies have used patient self-administered questionnaires either
mailed to former patients or to inpatients prior to discharge from hospital. The use of mixed-item wording of questions including both negative and positive connotations has been criticized as expectations were susceptible to social desirability response bias leading to unrealistically high scores (Babacus, 1990). Other researchers have observed that patients admitted to hospitals have limited physical and mental capacities and hence the effort needed to fill the questionnaires has to be restricted to a minimum. They suggest wording all items in the same direction (positive preferred as negative items require reversal which can be confusing to patients). Further, the number of items have to be limited – a trade-off between increasing the reliability of the scale and minimizing respondent effort has to be made.

In addition to the technique described, some other more descriptive techniques have been used to measure service quality in general:

- **Critical Incident Technique (CIT):**

  This method is aimed at learning customer judgements of major (critical) and minor (process) incidents that customers report experiencing with the service organization (Flanagan, 1954). Bitner, Booms and Tetreault (1990) applied this method to diagnose favourable and unfavourable incidents that customers report in service encounters. An incident is defined as an observable activity or event that is complete enough in itself to permit inferences, judgements and predictions to be made about participants and outcomes of the act. A critical incident is one that contributes to or detracts from the general aim of the activity in a way perceived important to the customer. CIT consists of asking customers to recall events that they particularly liked or disliked, when it happened, circumstances that led to the event, exact descriptions of what happened, and what was particularly satisfying or dissatisfying about the event (Bitner
et al, 1990) 94. This method is limited to evaluation of service incidents that customers find memorable enough to recall unaided, and results in a focus on only the highly satisfying and dissatisfying activities, neglecting other minor incidents that may also affect customer evaluations.

- **Blueprinting:**
  Mapping the details of the service process, visually depicting the process, the roles of customers and employees, the visible elements, customer interaction elements, and internal interaction elements of the service, can help in understanding the process. A blueprint also clarifies the roles and interdependencies of employees in service provision (Shostack, 1984) 95. While blueprinting helps in learning about potential stress points in existing service encounters, it does not provide customer perceptions of the steps and sequences or confirm the existence of problems (Stauss, 1993) 96. A blueprint can be made of typical as well as less typical or unusual service encounter processes.

- **Sequence-oriented Problem Identification (SOPI):**
  This method combines and extends blueprinting of service encounters with assessing customer perceptions of critical incidents. It starts with blueprinting the entire sequence of steps in a service encounter, and obtaining customer evaluations of each step that they may experience in the service process (Botschen, Bstieler and Woodside, 1996) 97. Stauss (1993) refers to this method as the "sequential incident method" and recommends this technique over the CIT as it involves guiding the customer over each step in the blueprint and will result in a more complete evaluation of the service. It also helps in detecting the 'fail points' in the process 98. Botschen et al (1996) reported that both the CIT and SOPI method provided unique information about the strengths and characteristics of the service. But the SOPI was able to elicit proportionately more of the negative responses than the CIT as
respondents may have warmed up to the task. They recommend SOPI in keeping with the "God is in the details" axiom as opposed to the "don’t sweat the small stuff" philosophy.  

3.11 QUALITATIVE AND QUANTITATIVE APPROACHES  
Methods of measuring patient satisfaction include various qualitative and quantitative approaches. Ford, Bach and Fottler (1997) have reviewed various approaches, and brought out their relative merits and demerits as presented:  

Qualitative methods:  
The qualitative methods include the critical incident technique, blueprinting, sequence-oriented problem identification, management observation, employee feedback, work teams and quality circles, and focus groups of patients.  
1. Management observation:  
Advantages include thorough knowledge of policies, least inconvenience to patients, minimal cost, opportunity to identify and recover from service delivery problems and failures. The downside is lack of validity and reliability, concealment and distortion to hide mistakes, unfamiliarity with processes and customers, and requirement of special training for objective observation.  
2. Employee feedback:  
Advantages are knowledge of delivery obstacles, rapport with patients, less inconvenience to patients, employee empowerment and improved morale, minimal cost, opportunity to collect detailed patient feedback and recover from service failure. Requirement of special training for objective observation and disinclination to report problems they created are the disadvantages.
3. **Work teams and quality circles:**
The points in favour are empowerment, improved employee morale, productivity, efficiency, effectiveness, patient satisfaction, image of confidence and competence, appreciation of management's commitment and employees' contribution to service quality. The precautions are that employees must be able to handle the responsibilities of empowerment, act cohesively, and spend a lot of time in communication among team members.

4. **Focus groups:**
They help draw focus on problem areas, bring out unusual problems, and convey interest in patients' opinions of service quality. The disadvantages are that symptoms may be identified but not core delivery problems, feedback limited to small group, requires repeat sampling for representative information, loss of specific encounter details, domination or bias of a member, withholding of information due to fear of disapproval, high cost of trained focus group leader, inconvenience necessitating incentives for participation.

**Quantitative methods:**
The quantitative methods for measuring patient satisfaction have been identified as comment cards, mail surveys, onsite personal interviews, telephone interviews and mystery shoppers. All the methods succeed in conveying that the facility is interested in patients' opinions and provide opportunities for recovery from service failure. The other pros and cons of adopting each of these methods is given as follows:

1. **Comment cards:**
Simple design, minimal cost, opportunity to use positive and negative comments for service quality improvement are the points in support. On the other hand, as participation is voluntary and results in a self-selected
sample, it may not be statistically representative. Comments generally reflect extreme satisfaction or extreme dissatisfaction.

2. **Mail surveys:**
Representative and valid samples of targeted patients, and comparison of patient satisfaction by department and patient demographics is possible. Cost of gathering representative sample is high, time lag, recollection of details may be lost, inconvenience necessitates incentives to participants, potential problems with the wording of questions are some of the drawbacks.

3. **Onsite personal interviews:**
In addition to the advantages of mail surveys, this method helps in collecting detailed patient feedback. Care must be taken to select a representative sample, other service experiences may bias responses because of time lag, tendency to give socially desirable responses, and moderate to high cost are the minuses.

4. **Telephone interviews:**
Pluses are the same as for mail surveys. The downside is the perception that the telephone call is intrusive, difficulty in deciding the time of contact, high costs of skilled interviewers and valid instrument, and difficulty in generating a representative cross-section of patients.

5. **Mystery shoppers:**
Can obtain unbiased feedback, focus on specific situations, and allows measurement of specific criteria like responsiveness and professionalism. Snapshots of isolated encounters may not be statistically valid, cost moderate to high, not applicable to all clinical areas (surgery), and ethical concerns of someone soliciting and receiving unneeded treatment.

Ford, Bach and Fottler (1997) recommend choice of the appropriate method based on organizational factors like size of facility, simple or complex nature of technology employed, ability of patients to judge, length
of service encounter, service location whether inpatient or outpatient, and degree of organizational change. Since patient service quality is a multidimensional construct, a qualitative method for eliciting relevant items followed by a rigorous quantitative measurement using structured questionnaires is advised.101

Interview administration of patient questionnaires: Greater flexibility in covering topics, sensitivity to patient concerns, more potential to establish rapport with interviewees, and scope for clarification of ambiguities in either question or response, and greater respondent adherence are the factors in favour. Whether unstructured or semi-structured the interview can provide qualitative data representing actual individual views, rather than aggregated data. However, interviews are time consuming and sample sizes tend to be small. (Fitzpatrick, 1991)102

Like and Zyzanski (1987)103, Rashid et al (1989)104, and Brown and Swartz (1989)105 compared doctors and patients perspectives of satisfaction. (cited in Lewis, 1994). Brown and Swartz used the technique of Gap Analysis developed for services marketing by Parasuraman et al in 1985. Patients were given questionnaires, which contained items relating to both expectations and experience, and overall satisfaction scores were also obtained. Physicians were given the questionnaire to complete as they thought their patients would complete them. The difference between client expectations and experiences and the differences between client experiences and doctors' perception of those experiences were found to significantly relate to patient satisfaction.

3.12 IMPLEMENTING SERVICE QUALITY
Successful implementation of quality service is one of the great challenges facing public health administrators. O Neill, Watson and McKenna (1994) suggest that successful management of organization-wide quality improvement efforts must include three parts:106
1. A set of core concepts that provide for common terminology and ideas about quality and its meaning and application to all individuals at work.

2. A systematic and common process that everyone uses for identifying and working quality issues through to effective preventive or corrective action.

3. A set of managing elements that define the areas for change in an effective organizational change.

Managers must organize themselves and others for dealing with quality issues and ensure that the customer is the priority throughout the organization.

Three distinct elements are necessary for integrating quality into management systems (Potter cited in Hill and Draper, 1995). The first step is to define quality and identify the attributes of service quality that consumers, accreditation authorities and funding agencies apply to the service. The next is to assess quality by measuring the extent to which particular attributes of quality are being achieved for different stakeholders. The final step is improving quality by using assessments of quality to drive organizational change and improve performance. A commitment to improving quality involves changing attitudes and behaviours and being open to looking at different ways of managing and delivering the service (Gill, 1994).

**Internal Marketing:**

The importance of good employee relations and internal marketing has to be recognized in producing good quality, achieving high efficiency and good customer service relations in the health care sector. The concept and practice of internal marketing addresses the need to include customer contact employee relations as a vital part of marketing strategy and tactics. Key health care employee categories like physicians, nurses, physical therapists, and medical technologists have to be attracted and retained for improving patient relations. (MacStravic, 1989)
An organization has to be responsive to both internal and external customers. Of fundamental importance is understanding that employees' capacity to provide high quality service to other employees and customers is directly related to the quality service they receive as internal customers of their organization's day-to-day management. In addition to the quality time provided by the physician, there are numerous role players including the paramedic who has a caring way and comforts accident victims, the receptionist and clerk who help patients with special needs, and the nurses and orderlies with a pleasant bedside manner. (Albert, 1989) 110

Employees treat customers similar to the way in which they perceive themselves to be treated by their organization. (Harber, Burgess and Barclay, 1993) 111

Lewisohn and Reynoso (1995) illustrated the importance of the internal customer concept in establishing a quality culture at the United Leeds Teaching Hospitals NHS Trust, a large public sector teaching hospital in the UK 112. Burns and Beach (1994) brought out the importance of physician feedback in identifying service improvement opportunities and directing limited resources in a large urban hospital in the US 113. A study of the importance of attributes of hospital service quality among consumers, found three of the top four characteristics to be related to competence and behaviour of physicians, thus reinforcing the need for hospitals to focus on internal marketing issues. (Elliot, Hall and Stiles, 1992) 114

Organizational Culture and Change:
Organizational culture is defined as an organization's values, decision-making processes, allocation of resources, division of power, the behaviour it requires, and the level of risk that is allowed and encouraged. The US Department of Veterans Affairs' (VA) Veterans Health Administration (VHA) in changing itself to customer sensitive Veterans
Integrated Service Networks (VISNs) should move from a command and control culture to one with more speed and flexibility. (Vestal, Fralix and Spreier, 1996)

The VHA is a federally financed and operated healthcare system that provides healthcare services to eligible military veterans. VA is one of the largest healthcare delivery systems in the United States of America with 173 hospitals, 133 nursing homes, and 40 domiciliaries. In addition to an organizational transformation, strategic alliances need to be forged among VA facilities and with other healthcare organizations. Born out of a need and willingness to share risks and costs, share knowledge and capabilities, and to take advantage of interdependencies to reach common objectives, alliances aim at gaining competitive advantage, leveraging critical capabilities, increasing the flow of innovation, and improving flexibility in responding to market and technology changes (Halverson et al, 1997).

Three types of alliances are described in literature: the service alliance, the opportunistic alliance, and the stakeholder alliance (Kanter 1994; Zuckerman and Kaluzny 1991, cited in Halverson et al, 1997). Halverson et al describe a service alliance of VA with some private sector counterparts for the provision of certain diagnostic and surgical procedures when the VA facility lacks the volume or expertise and arranges for the service locally to minimize inconvenience to patients. VA collaborates with pharmaceutical companies along the lines of an opportunistic alliance to conduct clinical trials of new drugs and medical devices. VA gains additional financial resources and experience with new developments in medical technology while the pharmaceutical companies use the large patient base and in-house research expertise of VA.

Morse and Pandy (2000) have described the organizational change implementation at the VA. The U.S. Department of Veterans Affairs (VA) mandated that all veterans' hospitals throughout the United States
implement the Restructuring Implementation Plan (RIP) to "restructure" their operations consistent with the Strategic Plan released in 1997 and conduct formal evaluation programs to monitor their progress and performance. The vision behind "restructuring" was to develop a more "customer-focused organization, functioning as 'One-VA' and delivering seamless service to veterans and their dependents". Furthermore, the notion of "restructuring" was consistent with complying with the requirements of the Government Performance and Results Act of 1993 (GPRA). 118 The October 1995 restructuring saw veterans' hospitals shift to "service line" structures developed to contend with the "deeply hierarchical, extremely bureaucratic, and highly inflexible" organization that had existed for over 50 years as a result of its military and government lineage (Vestal et al. 1997) 119.

Changing this structure meant flattening administrative hierarchies and streamlining communications, whereby decision making would devolve from VHA headquarters to the local facilities. Formerly called "strategic healthcare groups" and "product lines," service lines of care were designed to better meet the needs of patients and achieve "optimal sharing of resources, ideas, and information in an effort to improve access, enhance quality optimize efficiency, and maximize service satisfaction." The vision behind the development of services lines was reflected in the 1997 Strategic Plan that emphasized the value of "multi-skilled individuals" who would work in "environments such as teams and be rewarded differently". (Kizer 1997) 120.

Murray and Frenk (2000) have discussed the importance of decentralization and governance of provider institutions particularly with respect to the extent of autonomy even in a framework of public ownership. The extent to which such fundamental design options affect the performance of health systems is a question with major policy implications.
Structural arrangements have to do mostly with the relationships of provider organizations with each other. A central question is the extent to which such organizations are separate entities or whether they form networks at different levels of complexity (i.e., primary, secondary and tertiary care facilities). One instance is of organizing referrals among levels of care, including whether referrals can cross public–private boundaries, or whether private and public networks are segregated from each other. Clear policy guidance needs to be supported by an enabling set of institutions, which offer the appropriate incentives. But there must be discretion in the interpretation of general policy guidelines to meet local circumstances and an informed, consultative and accountable chain of command, from the peripheral clinic or health post to the minister's office. Achieving such a system often requires far-reaching change from the health system models in many countries, where the public sector is typically subject to centralized control, while the private sector is virtually unsupervised. (The World Health Report, 1999)

Harber, Ashkanasy and Callan (1997) made a path analytic study to test the linkage between culture, climate for change, and employee outcomes like job satisfaction, commitment, occupational alienation, and perceptions of patient care. They reported that culture for quality service determines climate for change, and recognition of the quality program determines communication for service quality improvement (SQI). Climate for change and communication of SQI, in turn, were shown to affect employee outcomes.

Their study was conducted in a medium sized, 253 bedded, public sector hospital in northern Australia. They investigated the relationships among organizational culture for quality service, a focus on quality, and employee perceptions and outcomes concerning service quality delivery to patients. The public sector hospital was chosen as it was a less researched area
and employees operated in an environment of funding constraints, bed shortages, and lengthy waiting lists, by "processing" patients within the allotted "average" time designated for the particular procedure or condition. There is the risk that patients will be discharged "quicker and sicker," thus seriously eroding quality of care. Reeve (1994)

The quality program implementation at the Naval Hospital San Diego, emphasized the importance of training for quality and empowerment of staff and describes the formation of Quality councils and the Southern California Coalition for Improving Health Care Quality. (Halder, 1994)

Cultural change was reported at Swedish American Hospital at Rockford Illinois, US, through maximizing employees' intellectual power by training, promoting team activity by introducing interdepartmental planning and problem solving teams, and motivation and empowerment of employees for implementing total quality management. (Anderson, 1994)

3.13 COMPONENTS AND DESIGN OF THE PRESENT STUDY

**Study setting, Scope and Components:** This study has been conducted on the inpatient services of a public sector hospital with a teaching and research affiliation, operating directly under the Directorate General of Health Services, Government of India. The following matrix presents the components of service quality described by Donabedian, that have been included in this study:

Structural elements like teaching and research affiliation can contribute to the perception of credibility and government ownership can contribute to the image perception of the hospital. Availability of service staff, their role definitions and loads can influence the perceptions of the interactive elements of care. The availability of amenities for patients and relatives can influence the perceived access of the hospital.
Process elements and standardization can affect perception of treatment procedures, and can set patterns of behaviour that patients and hospital personnel can expect from each other regarding clinical care. Interpersonal processes can speak about the availability and readiness of personnel to respond to patients' communication and emotional needs. Process elements in provision of amenities, maintenance systems for cleanliness, queuing or waiting processes for treatment, can affect perceptions of responsiveness of the hospital.

Figure 3.13a: Adapted Structure-Process-Outcome Components

<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>PROCESS</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL</td>
<td>Staff</td>
<td>Skills and Practice Guidelines</td>
</tr>
<tr>
<td></td>
<td>Teaching affiliation Govt. ownership</td>
<td></td>
</tr>
<tr>
<td>INTER PERSONAL</td>
<td>Roles - Contact and Patient support personnel</td>
<td>Courtesy Communication Sensitivity &amp; compassion in delivery of care</td>
</tr>
<tr>
<td>AMENITIES</td>
<td>Cleanliness conveniences Ease of access Appearance of staff</td>
<td>Ward maintenance Short waiting periods</td>
</tr>
</tbody>
</table>

Source: Adapted from Donabedian (1980).

Outcome element in this study is the clinical outcome of hospitalization: *cured* (free of illness), *relieved* (pain or symptom alleviation for conditions that are treatable but not curable), *status quo* (neither better nor worse than status at admission), and *worse* (aggravation of symptoms or illness). The likely effect of clinical outcome on the service quality perception and satisfaction of the patient is also sought to be studied.
**Source:** Original - prepared for the study

**Service Quality defined:**
Consistent with the terminology used by Parasuraman et al (1985), the terms expectations and perceptions have been used throughout this study.\(^{127}\) Expectation is used as an experience-based norm (Cadotte, Woodruff and Jenkins, 1987) \(^{128}\) and perception refers to consumers' evaluation of service performance. In a departure from Parasuraman et al (1985) Perception scores have been taken as consumers' rating of the hospital's service quality (\(^{129}\)John, 1992; \(^{130}\)Cronin and Taylor, 1992; \(^{131}\)Babacu and Mangold, 1992; \(^{132}\)Spreng et al, 1996). Expectation and Perception scores have been compared item-wise as a tool to analyze the position of the hospital on the individual domains of service quality and
point out areas in which efforts have to be made to live up to expectations. Gap scores have not been used for statistical analysis owing to their questionable psychometric properties (details presented under Research Methodology).

**Measurement:**
Quantitative method of on-site personal interview with a structured questionnaire developed specifically for the study population has been used. Items forming the final questionnaire have been derived by factor analysis of scores obtained with an initial questionnaire. Qualitative insights were also obtained during personal interview. Patients' perceptions of hospital performance have been compared with doctors' perceptions as seen from the patients' perspective. Relationship of demographics, perceived severity of illness, consumer involvement, clinical outcome, and other factors with service expectations and perceptions has been hypothesized and examined. Determinants of perceived service quality have been identified by regression analysis.

**Background for quality program implementation:**
Feedback has been obtained from principal contact employees and service providers - nurses and doctors. Doctors in clinical service departments and nurses have been considered as the Key Informants for this purpose based on the greater duration and continual nature of contact of these employee groups with inpatients. Nursing Role Efficacy and role contents have been analyzed. Doctors' views on organizational culture have been measured using a Targeted Culture Modeling instrument. A preliminary SWOT analysis of the hospital has been presented linking quality perceptions and organizational culture.

An exploratory analysis of admission data pertaining to Special Wards has been separately made to gather insight into the equity of access and
availability. There was a problem in getting a quantitatively and clinical speciality-wise representative sample of special ward respondents who could meet the inclusion criterion (not being employees of the hospital) defined for the study.

**CONCLUSION:** This chapter has thus presented the evolution of service quality concepts and their application and adaptation in various researches in the healthcare setting. An appropriate definition of quality, its conceptual meaning and components have been derived for this study after perusal of the arguments put forth by various researchers in this area. The chapter concludes with identification of the steps for quality program implementation with a service marketing perspective.

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