3.1 NEED AND SCOPE OF THE STUDY

Despite the ultimate acceptance of marketing as a legitimate and essential function for healthcare organization, the healthcare marketing endeavour has not been altogether successful. Although most hospitals practice marketing in some form or other, healthcare marketing has not developed into the scientific process that it is in other industries. Several factors have contributed to this but the primary reason has been the weak state of healthcare market research.1

A decade ago healthcare had no history of collecting data for marketing purpose, no mechanism for data sharing and no established methodologies for use in market research.

The changes in the healthcare environment in the 1990s have led to increased demand for sound market data. Like other industries healthcare organizations were confronted with more demanding consumers, increased market differentiation, unprecedented product development decisions and complex distribution choices – all without the requisite market data. As the demand for data is increasing, the need for market research in healthcare is escalating.2

Some healthcare organizations have realized and many are realizing that marketing and market research are necessities. Marketing needs to be fully integrated into the
decision making process. Strategic decisions are increasingly information driven and market research is required for collection of data that is converted into information.

Healthcare organizations usually have voluminous internal data, which is mostly useless from the marketing perspective. This data usually is in the form of patient characteristics, medical case mix, and financial data and like. It is mostly health related and in a form and context that renders it unsuitable for marketing use.

Further, meaningful data on external environment is also highly limited and in most case inaccessible. Data available with the government agencies is usually related to vital statistics of community health, utilization statistics and health facilities and personnel data. This data is not meaningful in context of marketing strategies by individual healthcare organizations.

All healthcare organizations need to perform a situational assessment. This is an analysis of the organization’s environment and of the organization itself. This process is referred to as the SWOT analysis because it examines the strengths and weaknesses of the organization as well as the opportunities and threats from the environment relevant to the organizations future strategy. This assessment requires basic marketing data to clarify as to what role does marketing already play in one’s own healthcare organization in terms of satisfaction of wants and needs of the consumers. Based on this, marketing strategies may be developed that help the organization to compete more efficiently in an increasingly complex and consumer driven marketplace.

This makes the acquisition, by healthcare organizations, of primary data, specifically related to marketing, significantly important.

There are various types of market research activities occurring in today’s healthcare environment. These range from the simple to the most complex. Identifying unmet healthcare needs, evaluating a new service, monitoring changing market characteristics are few of these.
Out of the various marketing and market research activities being undertaken by healthcare organizations in the present scenario, one of the most basic and perhaps the most important is customer (patient) satisfaction survey. A through knowledge of the needs and wants of the organization’s patients and the extent to which the organization is able to satisfy them is essential for any marketing activity. This is one research that precedes most of the marketing activity of the organization.

A private hospital can ill afford to ignore patient’s wants and expectations because dissatisfied patients and consequent falling patient strength can lead to financial non-viability, exodus of doctors, diminished benefactor support and other undesirable consequences. A hospital needs to engage in satisfaction survey in order to know what the specific needs of the consumers are and how well it fulfills it. It also needs to know the degree of satisfaction consumers have with the services the hospital provides and the relative strength and weakness of the hospital. This is necessary to determine the direction in which to focus on in order to get continued consumer patronage, attract new clientele and judiciously use the resources available.

Market researchers in healthcare are increasingly involved in customer satisfaction research. Currently, in USA, more than 90 percent of the hospitals employ some form of customer satisfaction survey. Many of them conducted in-house satisfaction surveys while others employed professional companies to do the same. There are more than 40 reputed companies conducting patient satisfaction surveys on behalf of client hospitals. Customer satisfaction research is used primarily to assess the ‘quality’ of healthcare from the customer’s perspective. Other common reasons for conducting customer satisfaction survey are troubleshooting, complaint resolution and collection of baseline data. In USA patient satisfaction report is necessary not only for improvement of services and increasing and retaining clientele but also for getting in corporate clients and large employers and managed care organizations and also for accreditation of the facility.
In United Arab Emirates, of the ten private for-profit hospitals surveyed, one had a continuous in-house patient satisfaction survey, and other used a professional company to conduct periodic surveys. All other hospitals did stress that they place a great stress on patient satisfaction but had no system in place to assess the satisfaction.

All private hospitals in India do assess patient satisfaction in some form or other. This practice is however mostly patchy, superficial, unimaginative, non-directional and strategies are made without specific insight into the consumer's needs and wants and their relation with the various elements in the marketing mix.

Inquiries into the level of satisfaction of an organization's clients were originally referred to as 'patient satisfaction' research. Indeed, only a few years ago, patients were considered as the only customers for the health services, and it was their opinion alone that mattered. However, the concept has been modified dramatically over the past few years and had come to include various other categories of customers that interact with the healthcare organizations.

Health care organizations are operating in an extremely competitive environment, and patient satisfaction has become key to gaining and maintaining market share. In the west all major players in the health care arena use satisfaction information when making decisions. Also, because much satisfaction data reflects care delivered by physician and other provider groups, this information is receiving close attention from managed care organizations, consumer forums, employers, and accrediting organizations. This underscores the need for medical groups to collect reliable and unbiased satisfaction information from their patients on an ongoing basis.

The customer satisfaction survey is the primary means of assessing how patients and other customers feel about the care they receive in a healthcare setting. "Care" refers to both the clinical aspects of treatment and the level of service provided.
Customer satisfaction is an ill-defined concept and it is difficult to define customer satisfaction. One approach is to assess the difference between the customer's expectation and the actual experience. This is called the contrast model. Another model, the assimilation model, depicts a situation in which customers evaluate best the service components that they can understand.

There are various elements that can be used to determine satisfaction. These include accessibility / convenience of obtaining care, availability of resources, continuity of care, efficacy / outcomes of care, financial consideration, compassion / empathy and responsiveness, information gathering, information providing, pleasantness of surroundings and quality / competence. These attributes are termed differently by different researchers.

As we move forward in this millennium, the measurement of patient satisfaction is becoming less of a luxury and more of a necessity for hospitals. It is increasingly important that a patient-satisfaction program be done well, using sound protocol and methods. In this era of increasing competition and high patient demand for health care excellence, hospitals cannot afford to forgo the insights they can derive from patient-satisfaction surveys.

The intention of any satisfaction research is to generate quantifiable data from an appropriate sample of customers that allows it to objectify the perceptions concerning various dimensions of service offered by the healthcare organization.

This is the scope of this research also.

3.2 OBJECTIVES OF THE STUDY

This project has been taken up with the intention of assessing as to what extent there has been application of marketing concept and strategies in select private hospitals, to
evaluate the healthcare needs of the patients and their expectations from these hospitals, to compare and contrast these needs with the response of the hospital and finally to recommend specific marketing strategies based on the above that may be considered and implemented by the hospital.

The data generated through the research will enable the selected hospitals to profile their customers and to know their needs and wants and how well it manages to satisfy them. This will also help them find gaps in their marketing policies and analyse their strengths and weaknesses. The research will also provide baseline data to the hospitals, which may be interfaced with other internal and external data for improved strategies. The administration, considering the benefits of the customer satisfaction survey, will make it an ongoing process in the organization.

The study has the basic objective of ascertaining the wants and expectations patients have from hospitals, to see the extent to which the hospitals are fulfilling them and to determine how hospitals in the private sector are using or can use various marketing concepts and strategies for the effective accomplishment of their objectives.

The study covers the following specific objectives:

1. To evaluate the needs and expectations of the patients from private hospitals in terms of the various facets of healthcare marketing.
2. To evaluate the application of various marketing tools and strategies by selected hospitals in the above areas of healthcare marketing.
3. To compare and contrast the patients expectations viz. a viz. the hospitals response, in the various areas of healthcare marketing.
4. To make specific recommendations based on the above analyses, for the selected hospitals in particular and private hospitals in general, for effective utilization of marketing tools and strategies.

This study will help the hospital, where it is conducted, by way of identifying the gaps in the patients wants and expectations and their satisfaction the give a basis on which to formulate marketing strategies in order to improve their clientele and
judiciously use their resources. It will help the patients attending these hospitals by way of improved services, if the management follows the recommendations in the study.

It will likewise aid other private hospitals in providing a direction in which to formulate specific action plan to improve their services in a cost effective manner thereby helping both the patients and the hospitals and the overall healthcare delivery system through these private hospitals.

The study also has some secondary objectives. These include:

1. The study will be useful to validate the instrument used so that it could be used in different settings in different areas. A reliable and valid instrument to measure patient satisfaction is certainly lacking in our country where patient satisfaction surveys are just beginning to be considered essential.

2. The study will also validate the use of the importance-performance analysis as an important feature of patient feedback that could be used by hospitals on a regular basis.

In all, the basic objective of the study is to improve patient care in hospitals by way of incorporating marketing tools including satisfaction surveys and consequent strategies into patient care.

### 3.3 LIMITATIONS OF THE STUDY

The research has few limitations. These include:

1. The research is confined only to select hospitals and it is not prudent to generalize the results to other hospitals. Attitude toward any health-care facility it specific to
that hospital and the attitudinal survey in one hospital cannot be generalised. However the patient’s needs and wants and his expectation from the hospitals can be generalised over a wider area. Further relative importance given to the various attributes of a hospital by a patient can be generalised to other hospitals in that particular area with a similar demographic profile of the patients.

2. There are other limitations inherent in any customer survey and these include customer non-compliance, issues of loyalty especially if interviewed at the organization’s setting, issues of privacy and unwillingness to respond negatively for fear of repercussion on follow-up revisits. These issues are more significant in the medical field. In medical field the patient’s contact with a hospital is usually not limited to a single visit. Patients need to return back frequently to follow up on their medical condition. Further they usually visit the same doctor again for the follow-up. This leads to a sort of forced loyalty and makes the patient unwilling to respond negatively to many questions especially those directly relating to skill, competence etc. of the doctors and other medical staff. Attempt is made to reduce these limitations by properly timing the data collection, collecting data using more than one approach and emphasizing and ensuring confidentiality.

3. The internal marketing survey in the doctor’s questionnaire also suffers from the above limitations. Fear of repercussion by the administration is quite high in private hospitals that follow a hire and fire approach and is significantly high especially among the junior doctors. This may lead to a higher number of false positive scores. Higher positive score are therefore expected especially for the hospitals in the U.A.E. Attempt was made to reduce this limitation by providing the doctors will self addresses stamped enveloped to return the questionnaire to ensure confidentiality.
3.4 RESEARCH METHODOLOGY

3.4.1 THE RESEARCH DESIGN

Non-experimental, descriptive comparative survey approach was selected for the present study, as it was designed to ascertain and compare the attitude of the respondents and their satisfaction to the various aspects of marketing of hospital services.

Non-experimental descriptive approach implies natural observation of the characteristics of the research subjects without deliberate manipulation of the variables or control over the research setting. It is conducted in a natural setting and it is the most common type of approach in patient care studies.\(^{10}\)

Descriptive research is one that gives accurate portrayal of characteristics of persons, situation or groups and the frequency with which certain phenomenon occurs.\(^{11}\)

A survey is the most commonly used method of gathering quantitative patient satisfaction data. This data is descriptive because it comes through observation rather than written record or controlled experiments.\(^{12}\)

Case-study method was used for the collection the patient satisfaction information from a range of settings. Four large private hospitals were chosen as the setting for the study, two in India and two in UAE that were considered significantly diverse in both philosophy and practice so as to give a wider representation to the sample.

A questionnaire was administered to 2 groups of subjects, which included the patients (or accompanying parents / relatives / caregivers) and doctors to comprehensively evaluate both the external and internal marketing strategies. The questionnaires were designed to evaluate some facts but mostly opinion. Factual evaluation related mainly
to the demographic information. Opinion included beliefs, attitudes, feelings and knowledge toward the marketing policies and practices of the institution as reflected by the satisfaction of the patient towards the various facets of marketing by the organization. Satisfaction was considered the general endpoint in the questionnaire.

The analysis obtained was used to define the problems, find out the alternatives and choose the best possible course of action that would accomplish the organizational objectives efficiently and effectively.

3.4.2 THE SELECTION OF SETTING FOR THE STUDY

There are many private and public hospitals rendering medical care in India and in the United Arab Emirates. They range from small to large. One end of the spectrum is small hospitals or 'nursing homes' that provide simple nursing and basic medical procedures and accommodation to the patient. These are managed by a doctor or group of doctors and usually owned by the doctors themselves. At the other end of the spectrum are large hospitals offering multi-disciplinary and multi-specialty outpatient and inpatient services and a variety of laboratories and investigative services under one roof. Religious orders and missions manage many of these large private hospitals. More recently there has been a development of private hospital managed by a company, business consortium or shareholders.

As is evident small hospitals generally do not employ formal marketing practices. The close interaction and the personal relationship of the customer and the provider generate customer satisfaction. As hospitals grow in size and its structure and organization becomes more formally organised and complex with multiple point interaction between the customer and the provider the need arises for sound marketing policies and practices to ensure patient satisfaction. Thus the need for marketing increases as the hospital as the hospital increases in size and complexity. It
is for this reason that large multi-speciality hospitals only have been considered as setting for the study.

Large multi-speciality hospitals are both private and state owned. Marketing practices to whatever extent are followed only in the private hospitals. The bulk of the income of the private hospitals comes from the patient fees and thus the ability to attract patient to the facilities to utilize the services assumes major significance. It influences the viability, functioning and growth of the hospital and in fact its very existence.

State owned (government) hospitals have been excluded from this study, as there is no concept of marketing in these hospitals. Even if they were made aware of the marketing needs and its possible benefits for the institution and the patients it is very unlikely that they will ever be translated them into practice. There is however no denying the fact that these hospitals, more then any, need to practice marketing.

It is for these reasons that large private multi-speciality hospitals has been selected for this study.

Four large private multi-speciality hospitals were chosen as the setting for the study, two in India and two in UAE. This choice is based on convenience sampling in order to include hospitals that were significantly diverse in both philosophy and practice so as to give a wider representation to the sample and to make a comparison between the settings more meaningful.

Two hospitals in UAE were selected because 70 percent population in UAE is expatriate Indian population and the hospitals selected as settings for the study are staffed and managed by expatriate Indians. Further they cater largely to the Indian expatriate population, which constitutes majority of the clientele. UAE in its growth and development represents what India would possible be a couple of years hence. This study of these hospitals will serve well to possibly project the level of health care marketing that could be evident in Indian in the near future. It is however noted
that this study extends to all clientele of these hospitals and not just to the Indian expatriate population.

The hospitals that were finally chosen for the study are:
1. Christian Medical College and Hospital, Ludhiana, India
2. Indraprastha Apollo Hospital, New Delhi, India
3. New Medical Centre Hospital, Abu Dhabi, UAE
4. Welcare Hospital, Dubai, UAE

Christian Medical College and Hospital, (CMC&H), Ludhiana, India is one of the earliest private hospitals in the country with more than a hundred years of existence. It works on basically a no profit and no loss philosophy, and also caters to the less privileged members of the community. It is also a medical college and thus has to fulfil certain norms. It does not have any significant marketing program.

Indraprastha Apollo Hospital, (Apollo), New Delhi, India is one of the largest hospitals in the country having a record number of specialties and super specialities, highly trained doctors and latest equipment in medical diagnosis and management. It is a part of health care chain in India and the UAE. It has a marketing program catering mainly to the elite.

New Medical Centre, (NMC), Abu Dhabi, UAE is the largest private hospital in the UAE and also one of the earliest having been established about 25 years ago. It caters mainly to the local and the expatriate population from the Indian subcontinent. It has a chain of health care centres in other cities. It has a limited marketing program.

Welcare Hospital, Dubai, UAE, has been established about two years ago. It is still in the process of establishing itself among a fiercely competitive market. It is attempting to actively market itself to various segments of the population.
TABLE 1: THE SETTINGS AT A GLANCE

<table>
<thead>
<tr>
<th></th>
<th>CMC&amp;H Ludhiana India</th>
<th>Apollo New Delhi India</th>
<th>NMCH AbuDhabi UAE</th>
<th>Welcare Dubai UAE</th>
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CHRISTIAN MEDICAL COLLEGE AND HOSPITAL, LUDHIANA, INDIA

The Christian Medical College and Hospital is over a hundred year old medical college and hospital with a long history.

On 4th of May 1881, two Scottish Missionary Ladies - the Greenfield Sisters - founded a small dispensary in Ludhiana. The Greenfield Sisters were evangelists and educationalists. They received willing support of other missionaries especially the American Presbyterian Mission Centre and the people of Ludhiana and extended their services in the field of health education to the local people. The dispensary grew in size and it was named Charlotte Hospital.
In 1889 a conference of women missionaries under the leadership of Dr. Edith Brown met in Ludhiana and took the decision to open a medical school at Ludhiana. An empty school building was rented and the 30-bedded Charlotte hospital was loaned from the Greenfield sisters.

On January 4th, 1895 the Medical School opened with four teachers, two dispensers and fifteen students. The main aim of the school was to train Indian Christian Doctors to serve the fellow Indians particularly in villages. Community outreach was the primary motive. From the year 1906, the Punjab Govt. started granting generously to this school. In the year 1915 the women’s department of Lahore Medical College was closed and all girls were sent to this school.

In the year 1953, it was opened to train men also and the medical school was upgraded into M.B.B.S. level college. In 1957 the Brown Memorial Hospital was opened. The college kept on growing and many new building and infrastructure and staff was added to it. During the year 1973, the nursing school was upgraded to B.Sc. College of Nursing. In 1993 the Dental College was started.

Today, Christian Medical College and Hospital is a 750 bedded hospital that provides inpatient and outpatient facilities in a wide range of medical and surgical specialities and sub-specialities. It is a tertiary hospital and its catchment area includes a large part of northern India. It offers a wide range of diagnostic and treatment facilities backed up by extensive support facilities. It has on its rolls about 2000 employees in different categories excluding students and trainees. Being a more than 100 ear old institution CMCH has many firsts to its credit.

Although one of the largest hospital in India, the mission of the institution still remains primarily to train doctors to work in the community.

CMCH is a teaching hospital and one of the premier medical colleges of the country. It is affiliated to the Punjab University and recognized by the Medical Council of India. It trains undergraduate and postgraduate medical, nursing and dental students.
It places significant emphasis to research in the medical field and also has an extensive community outreach program.

CMCH is an independent institution, registered under the Societies Act 1860, as a charitable institution.

It has a board of management which include representatives of various institutions like the church and church related agencies, overseas fellowships, elected representative staff member, ex-officio members, stated co-opted members including government functionaries and term members invited to the serve because of their expertise.

The board of directors, called Governing Body, meets twice a year to review the working of the institution.

To run the day-to-day affairs of the C.M.C., the board members nominate an Executive Committee, and to oversee the financial matters a Finance & Property Committee.

The chief executive officer of the institution is the Director. He is also the Secretary of the Christian Medical College, Ludhiana Society. Other important administrators include the Deputy Director, Medical Superintendent, General Superintendent, Principal, Medical College, Principal, College of Nursing, Principal, Dental College, Personnel Officer and Finance Officer,

For the smooth functioning of the affairs of the hospital various committees have been instituted.

Patient movement statistics and services utilization statistics (averaged for the last 3 years) show that there are more than 55,000 new patients and 220,000 revisit patients in an year averaging about 900 outpatients per day. There are more than 17,000 inpatient admissions in a year averaging more than 47 in a day with average bed
occupancy of about 46 percent. An average of more than 22 major operations are performed in a day. More than 1300 laboratory tests and 85 radiological investigations are performed in a day.

**INDRAPRASTHA APOLLO HOSPITAL, NEW DELHI, INDIA**

Padma Bhushan Dr. Pratap C Reddy founded the Apollo Hospitals group in 1983. The Apollo Hospitals, Chennai was the first corporate hospital to establish India, bringing together the latest technology and world-class medical professionals.

Apollo Hospitals pioneered the concept of corporate hospitals in India. The group has a network of hospitals spread across the country. After the first hospital at Chennai, the group expanded its activities by setting up a super-speciality centre at Hyderabad, 650-bed multi-speciality hospital at Delhi, a super specialty centre at Madurai, a heart and Kidney centre at Vishakapatnam and a secondary care centre at Aragonda in Chittoor district. The group has a Heart Scan Centre at Dubai. Exclusive Cancer care hospitals have been set up Chennai and Hyderabad. The group manages hospitals at Pune, Coimbatore and Erode and has lifestyle clinics at Chennai, Hyderabad, Delhi and Mumbai. It has recently opened a hospital in Dubai. The Apollo Group's plans for the future include a hospital at Narhenpita in Sri Lanka, a hospital in Ahmedabad, Muscat and Katmandu.

The Apollo group boasts of 2600 hospital beds ably supported by 5400 employees across the country. More than 3 million patients have been treated at Apollo Hospitals.

The Indraprastha Apollo hospital at New Delhi is a jewel in Apollo's crown. Indraprastha Apollo is the largest corporate hospital outside the United States. It is the third super specialty tertiary care hospital set by the Apollo Hospitals Group, jointly with the Government of New Delhi, India's capital. It is a 695-bedded hospital, with the provision for expansion to 1000 beds in future.
The hospital started functioning from July 1996, its mission being, medical excellence with human touch.

The hospital is at the forefront of medical technology and expertise. It provides a complete range of latest diagnostic, medical and surgical facilities for the care of its patients. It provided medical care in more than 50 specialities and sub-specialities.

The hospital treats a significant number of overseas patients and an MOU has been signed with the governments of Tanzania & Mauritius to treat patients from these countries sponsored by their Governments. The Hospital also provides free treatment, exclusive of medicines and medical consumables, to few poor and needy patients sponsored by the Govt. of Delhi. The hospital had a joint CME programme in association with Mayo clinic USA wherein their faculty members along with the Hospital Consultants delivered a series of lectures to the participants. Apollo Hospital is starting few teaching programmes like fellowship in Emergency Medicine and Family Medicine and Diploma in Laboratory Technology.

Indraprastha Apollo Hospital has set up ‘Apollo satellite clinics’ to provide out patient services in and around Delhi. These outpatient (OPDs)/satellite clinics are operated by the franchisees and professional back up and services are provided by Apollo consultants.

Patient movement statistics and services utilization statistics have recorded a significant growth within a short span of five years. There are more than 23,000 inpatient admissions in a year with average bed occupancy of about 65 percent. The hospital performs, on an average, more than 1500 open-heart surgeries, 900 Neuro-surgeries and 250 transplants in a year.

Indraprastha Apollo Hospital is a private, for-profit hospital. Its financial health has been very good and continued to show rising trend. Net profit after tax was reported to be in excess of 400 lakhs for the financial year 2000-01.
NEW MEDICAL CENTRE AND HOSPITAL, ABU DHABI, U.A.E.

The New Medical Centre Hospital (NMCH) started in 1975, in Abu Dhabi, and is the result of the vision and determination of HE Abdulla Humaid Al Mazroei, the Chairman and Mr. B. R. Shetty the Vice-Chairman and the Managing Director. Under their able leadership and guidance the hospital has grown with the commitment of bringing prompt, efficient and reliable healthcare to the people of Abu Dhabi. From its humble beginnings the hospital has come along way and today the NMCH is the largest private hospital in Abu Dhabi, providing a wide range of healthcare services in a wide number of medical and surgical specialties.

NMCH is a part of a large ‘nmc group’ which boasts of a two full fledged hospitals, one each in Abu Dhabi and Dubai and a clinic in Sharjah. Along with this the group has a number of pharmacies, optical and beauty centres. The group also has a large trading division that are the agents of, and deal with, medical consumer and scientific products and pharmaceuticals of several well-known international brands. The group in now in the process of back-integrating into manufacture of pharmaceuticals. Apart from healthcare, the group also has interests in consumer goods, commodities and general trading, electronics and telecommunications, real estate, public relations and advertising and hotels and hospitality industry. The group runs one of the largest non-banking financial services in the country.

The New Medical Centre Hospital at Abu Dhabi is a 50-bedded multi-speciality hospital, with about 100 medical specialists in various disciplines. The medical and surgical specialists are ably supported by advanced and latest equipment in medical diagnosis and treatment. The hospital provides comprehensive medical care including evaluation, diagnosis and treatment. On an average more than 1500 patients visit the various departments of the hospital everyday.

The hospital also runs first aid training courses especially for offshore companies, takes part in various community healthcare programmes including medical check-ups
and presentations and provides first-aid and healthcare facilities for various sporting events held in the U.A.E.

Over the years the hospital has grown steadily and has acquired an impeccable reputation of being a medical institution of world-class standards, where patient care is driven by a genuine concern for the patient care and a sincere commitment to his well being.

The commendable service provided at the NMCH has enabled it to gain the ISO 9002 certificate from the KPMG Quality Registrar Inc. With the wealth of years of experience in healthcare in the region behind it, the hospital is still growing from strength to strength.

**WELCARE HOSPITAL, DUBAI, UAE**

The Welcare Hospital, Dubai, UAE, was inaugurated by H.H. Sheikh Hamdan Bin Rashid Al Maktoum, Deputy Ruler of Dubai & U.A.E. Minister of Finance & Industry on May 27, 1998. The hospital was set up and owned by Mr. Sunny Varkey whose family has strong roots in the UAE in the field of education.

The hospital is managed by a team of internationally qualified and experienced healthcare professionals and is equipped with state-of-the-art technology. Relatively small be the Indian standards, but one of the biggest private hospitals in the UAE, the hospital offers a large range of medical and surgical specialties, both outpatient and inpatient, in a caring environment.

As part of the Hospital's commitment to offer the community world class care, the Hospital is adapting the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards, the leading US body for accrediting healthcare organizations. By doing so, Welcare Hospital ensures that the patients receive the best of medical care. Further, as a part of this commitment the Welcare Hospital has a
Medical Record Review process runs regular Post Graduate Clinical Programmes and ongoing educational and training programmes by renowned specialist. It supports ongoing visits by leading world wide medical specialists are so that international expertise available locally.

Welcare Hospital is the first private hospital in the U.A.E. to win the Dubai Quality Appreciation Programme under the Professional Sector for the year 2000 - 2001. This award to the hospital, when it was just 2 years old, is a commendable feat.

Welcare Hospital has a Quality Assurance Department is involved in developing, evaluating and implementing effective quality management systems and over looking quality improvement initiatives throughout the hospital. By satisfying both the internal (i.e. staff) and external (i.e. patients) customers, and recognising and respecting each individual's unique healthcare needs, Welcare provides high levels of individualised quality care to its patients.

Welcare is the only hospital among the 4 settings of the study that proactively listens, investigates, acts and responds to patient comment, queries and complaints. Patients are provided with patient satisfaction questionnaires, which provide the hospital with important information that helps them to refine and improve their patient services. Also follow up telephonic calls are made to new patients a few days following their visit to the hospital to ensure that the objective of having total satisfaction with the services rendered has been met and to follow-up on any issues of concern to the patient. It is also the only hospital that actively internally markets itself amongst its employees.

Apart from the hospital activities, Welcare Hospital actively takes part in various community activities and offers first aid services for various international events in the city. It is also planning to open satellite clinics in different areas of the city.

Welcare is a relatively new hospital and still in the process of growth. Great strides have been made in the last three years and still continuing. New specialists with
international experience are being added to the faculty to provide greater depth and breadth in patient care. New services are being added including the heart rescue service. It is the first private hospital in the UAE to start interventional cardiology and cardiac surgery and the only private hospital providing sleep lab facility.

3.4.3 THE STUDY POPULATION AND SAMPLING

STUDY POPULATION

At all the four setting chosen for this study two main groups of population were included in the study. These are:
1. The patients (or accompanying parents or relatives or care-givers) visiting the hospital and utilizing its facilities, and
2. The doctors practising at the hospital

SAMPLING UNIT

For the patient’s sample, the sampling unit consisted of all the patients utilizing the services of the hospital, irrespective of the nature and duration of the service being availed. This included both inpatients and outpatients in all departments, specialities and sub-specialities including medical, surgical or paediatric. For patients who were unable to complete the questionnaire on their own the questionnaire was given to the accompanying relatives or any care giver actively involved with the care of the patient.

For the doctors the sampling unit considered for the study consisted of all the doctors employed by the hospital and working at the hospital at the time of the study irrespective of the specialty, type of assignment or seniority. Students, trainees and
those on temporary contract or deputation and were not considered employees were excluded from the sampling unit.

SAMPLE SIZE

Although the number of doctors at each hospital is limited, the population of patients utilising the services of a hospital is unlimited, therefore the population from which the sample is being drawn is infinite. Thus the sample size represents an infinite sampling unit at each of the four settings.

In this situation, the sample size that will provide 95 per cent confidence level at +/- 5 per cent confidence was calculated to be 384. This calculation was based on standard mathematical models.\textsuperscript{13,14}

Thus 384 customers from each of the four hospitals were entered in the study, giving a total of 1536 customers or samples for the entire study. At each of the setting, out of 384 customers, 40 doctors and 344 patients were entered in the study.

THE SAMPLING METHOD

The sample selection entailed probability sampling. For the patients, simple random, systemic sampling was used. Doctors were selected on the basis of a stratified random sample and entered into the study. The strata was based on the seniority of the doctors i.e. junior doctors and senior doctors / consultants. This is because considerable heterogeneity exists between these strata with regard to their attitude and concern regarding marketing policies and practices. The sample size from each stratum was based on proportional allocation.

The sample for the questionnaire for the patients/relatives consisted of 344 patient registering at the above hospital. These included both those who were coming for the first time and those on revisit. The patients entered into the study belonged to varied socio-economic-demographical profile and were utilising different areas of service of...
the hospital. Since the patient registering at the hospital directly reflects the utilization of different services, the sample was considered representative.

These patients were approached once the present encounter with the setting was over; either at the time of exit from the point of service or on follow-up by telephone. In many cases the patient were given the questionnaire and asked to complete the questionnaire after the encounter and then deposit in the designated box kept at a convenient location or to mail it back. A self addressed stamped envelope was provide in the latter case.

From among the doctors a stratified random sampling was used. This is because among the doctors it is observed that considerable heterogeneity existed between these strata with regard to their attitude toward the hospital and the patients and their perception and assessment of the various marketing policies and practice of the hospital. The population of doctors were divided into junior doctors and senior doctors. In settings where such a definite stratification was not available doctors were arbitrarily stratified according to the number of years they had been employed at the hospital. The sample size taken from each stratum was based on the proportional allocation. From within the strata samples were drawn randomly.

3.4.4 THE INSTRUMENT

DEVELOPMENT OF THE INSTRUMENT

Two non-disguised and structured questionnaire was prepared for the purpose of the study, one each for the patients (parents / relatives / caregivers) of the patient and the doctors. The questionnaires were essentially similar in content. The questionnaire to the doctors included some elements of internal marketing. The main purpose of the questionnaire was to collect relevant data and make data comparable. The development of the questionnaire involved multiple steps.
On the basis of the purpose of the study, an extensive review of research and non-research literature was conducted for the purpose of developing appropriate instrument for the study. This also included the specimens of patient satisfaction survey questionnaires being used at different hospitals in the west. No such information could be obtained from India.

Based on this review, the instrument, an attitude scale questionnaire, was developed. It was felt the concerns and hence the attitude of the groups chosen i.e. the patients and doctors would substantially differ and hence separate instruments were developed for these groups. The questionnaire to the doctors included some element of internal marketing.

The different area for which the information was sought was subsequently decided. These areas related to and covered the seven facets of service marketing including the product, place, promotion, price, physical evidence, people and the processes in the hospital under study. On the basis of the extensive review of literature the areas for which information was sought were grouped under the following categories:

1. Medical outcome
2. Access to care
3. Responsiveness of the personnel
4. Empathy
5. Communication
6. Tangibles
7. Reliability of service
8. Price (cost) of services

The first part of the questionnaire consisted of statements concerning the presence or absence of the various aspects of marketing in the hospital, the patients’ wants and expectation from the hospital, the extent to which these are fulfilled and the patients’ satisfaction with the services provided by the hospital. The items related to, among others, the improvement or deterioration of the medical condition for which the
service was utilized, the ease of availability of care, relationship of the personnel with
the subject, the skills and availability of the doctors and other staff, physical location
and physical facilities including lighting, ventilation and cleanliness, the adequacy of
various related facilities like laboratories and other investigation facilities, the charges
for the services especially in relation to the services provided, the attitude of the
hospital staff and the various processes that the patient has to go through while
availing the services at the hospital. Number of items was made covering all the
above categories out of which few were positive and few items were negative.

The final instrument had 37 statements that were based on a Likert scale. Declarative
statements were developed for the respondent to respond on a five point scale i.e.
strongly agree, agree, uncertain, disagree, and strongly disagree. The responses were
later quantified by giving score ranging from -2 to +2 depending on the statement and
the response, with the uncertain response obtaining a zero score.

The second part of the instrument related to an importance-performance scale where
the respondents were asked to rate certain attributes according to the importance
attached by them to the attribute and the performance of the hospital in relation to
these attributes.

The third part of the questionnaire contained some open-ended items to express
unprompted opinion and items related to the customer’s basic demographic profile.

Research had demonstrated that such mixed questionnaires are particularly useful in
satisfaction survey, and can generate more actionable information.16

A cover note was prepared introducing the survey to the respondents and informing
them of the rationale, need and nature of the questionnaire, emphasising their
anonymity and thanking them for their anticipated cooperation. This was done to
increase the cooperation of the potential respondents and decrease the number of non-
respondents.17

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The questionnaires were then presented to 6 experts for correcting factual errors, sentence construction and interpretation. 3 of the experts were from the field of medicine and other 3 from management. Following this a pilot study of the three instruments was conducted on the patients and doctors respectively for whom the instrument was intended. Based on the findings of the pilot study the validity and reliability were calculated.

**RELIABILITY AND VALIDITY OF THE INSTRUMENT**

Validity of an instrument is defined as the characteristic of an instrument wherein it truly measures that which it was intended to measure and the difference in the observed scores using the instrument reflects the true difference on the characteristic that is being measured. There are many facets and dimensions of the concept of validity.\(^{18}\)

Face validity implies that the instrument ‘appears’ to be valid. This is the apparent validity of the instrument by which the instrument appears seemingly right to the reader. Since the validity of the instrument goes much beyond the appearance or the face, the concept of face validity is no longer in vogue and it has been integrated with the content validity. Content validity implies that the items in the instrument pertain to and are representative of the subject about which the opinion is being sought.\(^{19,20}\)

In the two instrument used in the study, face and content validity was first done by extensive review of the relevant literature and thereafter reviewing the various patient satisfaction surveys being carried out in various hospitals. Ten large hospitals in the United States (satisfactory information was not available for other areas, and no hospitals in India or UAE were identified where standard patient satisfaction surveys are being carried) were identified. Standard patient satisfaction survey questionnaire being used in the hospitals were obtained and reviewed. Based on the literature and the surveys the present questionnaire was prepared. The items were grouped under different categories as mentioned earlier. Both positive and negative items were made for each group.
The questionnaire was subsequently evaluated by a panel of six experts. Three of them belonged to the field of healthcare and the other three to the field of marketing. Each of them was individually given the questionnaire and was asked to update terms, to clarify confusing items, identify ambiguities and to comment on the apparent validity of each item. The opinion expressed by the experts was incorporated in the questionnaire and several items were modified based on their opinion.

The resulting questionnaire was then again administered to 10 patients at a hospital that was not one of the settings of the study. The questionnaire was discussed with them and they were asked to comment on and to clarify items that were not easily understood or which appeared ambiguous. No items required further change.

Reliability is defined as the extent to which results are consistent over time and an accurate representation of the total population under study. In other words, if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. Reliability has two main dimensions, temporal stability and internal consistency.\(^1\)

The temporal stability of the questionnaire was measured by the test-retest technique.\(^2\) 10 patients were administered the questionnaire and then were re-administered on follow up between 4 and 6 weeks of the initial visit. The coefficient of correlation was 0.76 between the test and the retest. A score of 0.76 is considered adequate for group measurements, the purpose for which the questionnaire has been designed. The test-retest was not applied to the doctor's questionnaire.

It may be noted that correlation was the highest for empathy and communication and least for medical outcome and access to care. This is understandable as personal characteristics of the relationship between the doctor and the patient, like communication empathy and responsiveness, improve with subsequent visits. Medical outcome and access to care especially availability of appointment will vary from visit to visit.
The internal consistency was measured by the split-half method. For this the questionnaire was administered to 25 patients and 10 doctors. As already mentioned, the items in the questionnaire had been grouped under different categories namely medical outcome, access to care, responsiveness of the personnel, empathy, communication, tangibles, reliability and the price (cost) of services. Both positive and negative items were made for each group. The split half method was applied only to the first part of the questionnaire containing the Likert scale based items.

The questionnaire was thus split along these positive and negative items (the last item on overall satisfaction was excluded, leaving 36 items), with equal number of items in each of the split half. The scores of the items in each half of the split questionnaire were compared; coefficient of correlation calculated using the Pearson’s product-movement correlation coefficient. This was corrected using the Spearman-Brown formula. Coefficient of correlation for the patient’s instrument was 0.818 and that for the doctor’s instrument was 0.807. A score of 0.80 or more is considered highly satisfactory for group measurements. This demonstrated that both the questionnaire had a high internal consistency. Using the Spearman-Brown prophesy formula it was calculated that increasing the number of test items (statement) in the test to 45 would only increase the ‘r’ to 0.838, and that for a ‘r’ of 0.90, 78 test items would be required. Hence the length of the test was neither increased not decreased. All calculations were performed on statistical calculators available on the Internet.

Thus the instrument was found to be both valid and reliable. It was subsequently administered to the study subjects.

**ADMINISTRATION OF THE INSTRUMENT**

Before the start of the study at each of the settings, the need, scope and methodology of the study was presented to the management of the setting individually and their consent obtained for conducting the study at the setting. This was necessary to have
to have a more unbiased response especially from the doctors who usually fear repercussion from the administration in such situations.

344 patients registering at the setting were included in the study. These included both those who had come to the setting for the first time and those who were revisiting the setting for the same or different medical problem. Patients, who were using only limited services of the hospital, like laboratory, physiotherapy or radiology, without a doctor consultation were excluded. Patients of all ages were included in the study. These patients were approached once the present encounter was over, at the time of exit from the point of service.

The questionnaire was given to the patient and they were asked to complete it at site and deposit it in a box provided or return it to the reception desk in a closed envelop which was provided. If so desired by the patient, they were asked to complete it at a later date and were given a self addressed stamped envelope to post back the completed questionnaire. It has been seen that the use of a self addressed stamped envelope enhances the value of the survey questionnaire. For those patients who were unable to complete the questionnaire, the relatives or the accompanying caregiver were asked to complete the questionnaire. For patients who expressed inability to complete at site or later were asked for their telephone number and were later contacted to complete the questionnaire through a telephonic interview.

It may be noted here that there exist a lot of heterogeneity among the patients as to their time and extent of encounter with the setting. Some patients come only for a short outpatient visit lasting few minutes, while others stay in the hospital for days. While some go through admission, laboratory and radiological investigation and have an encounter with different facilities with the hospital, others just encounter the physician with a brief encounter with the reception staff and the nursing staff. Some patients may have some emergency problem or other that needs immediate redress while others may be happy to wait a long time before being seen by a doctor of their choice. In such a situation it is not possible to have a uniform method of data
collection in all situations and in all settings. The best method of collecting information was used depending on the setting and the patient situation.

The patients (or parents, relatives) were given various options for completing the questionnaire. This was done to minimize the number of non-responders and to ensure uninhibited and frank patient response. This was considered necessary to improve the quality and value of the study.

For the doctors the questionnaires were given individually to the study subjects along with a self addressed stamped envelope. They were requested to post back the completed questionnaires. No other option was utilised in this case. This was done to ensure confidentiality. All the study subjects were reminded telephonically till most of the questionnaires had been received back.

The completed questionnaires were then analysed.

### 3.4.5 ANALYSIS OF THE DATA

The response in the questionnaire, as already mentioned, was on a 5 point Likert scale and divided as Strongly Agree (SA), Agree (A), Uncertain (U), Disagree (D) and Strongly Disagree (SD).

The responses in each statement were counted and the percentage response (depending on the number of responses received for each question) was calculated. It may be noted here that the number of responses for each statement vary as many respondent did not mark any choice for some statement.

Each of them was then given a point depending on whether the particular statement was favourable for the hospital or not. In statements that were favourable (positive statements) the SA category was given +2 points, A was given +1 points, U category given 0 points, D category received -1 points and SD category was awarded -2 point.
In statements that were not favourable (negative statements) the point were reversed with SA receiving -2 point and SD receiving +2 points.

The points were added and this gave the final score. As evident, positive score means that the statement and the service element that it portrays is positive for the institution. A negative score means that the attitude of the respondent toward that particular service element is negative for the hospital. The more the positive score the more positive the attitude of the respondent for the element and converse for the negative score. Score nearing zero was considered equivocal.

Individual scores for the patients’ and the doctors’ responses were calculated. This was done basically to compare and contrast the two responses to obtain both the patients’ and the doctors’ perspective on a statement. In many case they were found to be different. The total score obtained by adding the patients’ and the doctors’ score proportionately (depending on the number of responses) has also been mentioned. As evident, this score falls nearer to the patients’ score, their sample being more.

For the importance performance analysis contained in the Part II of the questionnaire, the importance and performance were scores on the various attributes presented to the respondents were added and then divided by the number of respondents to give a mean score. The attributes were then ranked in order of importance based on the mean importance score obtained for each of the attribute.

The attributes were further divided into two categories based on their relative importance. The median of the mean importance score was calculated. Attributes with a mean importance score of more than the median of the mean importance score have been categorised as ‘more important’ and those below the median have been categorised as ‘less important’. This is an arbitrary division, for sake of convenience, dividing half the attributes as more and other half as less important.

Similarly the attributes have been divided into two categories based on the relative performance. Here again the median of the mean importance score was calculated.
Attributes with a mean performance score of more than the median of the performance scores have been categorised as 'superior performance' and those below the median of the performance score have been categorised as 'inferior performance'. Again, this division is purely arbitrary as mentioned above.

Based on the above, four groups of attributes were made as follows:
1. Group A: more important & superior performance
2. Group B: more important & inferior performance
3. Group C: less important & superior performance
4. Group D: less important & inferior performance

These four categories were graphically represented in an importance-performance grid that was then analysed.

Open-ended questions in Part III of the questionnaire presented a variety of varied responses and were not analysed for the purpose of this study.

The analysis of data and interpretation of the results are presented in the next section.

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