CHAPTER II
REVIEW OF LITERATURE

Andaleeb (2001)\textsuperscript{7} explained patients' perceptions about health services seem to have been largely ignored by health care providers in developing countries. Such perceptions, especially about service quality, might shape confidence and subsequent behaviours with regard to choice and usage of the available health care facilities is reflected in the fact that many patients avoid the system or avail it only as a measure of last resort. Those who can afford it seek help in other countries, while preventive care or early detection simply falls by the wayside. Patients' voice must begin to play a greater role in the design of health care service delivery processes in the developing countries. This study is, therefore, patient-centered and identifies the service quality factors that are important to patients; it also examines their links to patient satisfaction in the context of Bangladesh. A field survey was conducted. Evaluations were obtained from patients on several dimensions of perceived service quality including responsiveness, assurance, communication, discipline, and baksheesh. Using factor analysis and multiple regression, significant associations were found between the five dimensions and patient satisfaction. Implications and future research issues are discussed.

Clemes, Ozanne, Laurensen (2001)⁸ in their study explained that the 1984 liberalization of the New Zealand economy has resulted in a health care sector that has become very competitive (Zwier and Clarke, 1999). The private sector is now able to supply health care services and, as a result, a greater value is being placed on patients’ satisfaction (Zwier and Clarke, 1999). However, despite the increasing focus on customer satisfaction, research into health care patients' perceptions of the dimensions of service quality is scarce. This can be problematic, as quality of care is an essential issue in the strategic marketing of health care services (Turner and Pol, 1995). This study takes a step towards addressing this deficiency by identifying patients' perceptions of the dimensions of service quality in health care. The findings of this study are based on the empirical analysis of a sample of 389 respondents interviewed through telephone. The findings indicate that the service quality dimensions identified in this health care specific study differed in number and dimensional structure from the widely adopted service quality dimensions first identified by Parasuraman, Berry and Zeithaml (1988) regarding reliability, responsiveness, assurance, empathy and tangibles. The service quality dimensions identified in this study were: reliability, tangibles, assurance, empathy, food, access, outcome, admission, discharge and responsiveness. In addition, health care patients perceive the service quality dimensions relating to the core product in health care delivery (for example, outcome and reliability) as more important than the service quality dimensions relating to the peripheral product in health care delivery (for example, food, access and tangibles). Finally, the results of this study suggest that patients with different geographic, demographic, and

behaviouristic characteristics have different needs and wants during health care delivery and therefore perceive different service quality dimensions as important.

Michael K. Bray and Joseph Cronin (2001)\textsuperscript{9} in their study investigated through qualitative and empirical research. The authors find that the service quality construct conforms to the structure of a third-order factor model that ties service quality perceptions to distinct and actionable dimensions: outcome, interaction, and environmental quality. In turn, each has three subdimensions that define the basis of service quality perceptions. The authors further suggest that for each of these subdimensions contribute to improved service quality perceptions, the quality received by consumers must be perceived to be reliable, responsive, and empathetic. The authors test and support this conceptualization across four service industries. They consider the research and managerial implications of the study and its limitations.

Syed Saad Andaleeb (2001)\textsuperscript{10} in his study suggested that patients’ perceptions about health services seem to have been largely ignored by health care providers in developing countries. Such perceptions, especially about service quality, might shape confidence and subsequent behaviours with regard to choice and usage of the available health care facilities is reflected in the fact that many patients avoid the system or avail it only as a measure of last resort. Those who can afford it seek help in other countries, while preventive care or early detection simply falls by the wayside. Patients’voice must begin to play a greater role in the design of health care


service delivery processes in the developing countries. This study is, therefore, patient-centered and identifies the service quality factors that are important to patients; it also examines their links to patients’ satisfaction in the context of Bangladesh. A field survey was conducted. Evaluations were obtained from patients on several dimensions of perceived service quality including responsiveness, assurance, communication, discipline, and baksheesh. Using factor analysis and multiple regression, significant associations were found between the five dimensions and patient satisfaction. Implications and future research issues are discussed.

White, Slabber, Schreuder (2001)\textsuperscript{11} in their study explained that the difference between service quality expectations and perceptions (experiences) of patients (customers) attending a dental training hospital was investigated by using a modified version of the Parasuraman SERVQUAL model. A questionnaire comprising 28 service quality-related statements and four open-ended questions were used at the interviews. The study showed that 11.6\% of respondents experienced problems with the service. A principal component factor analysis indicated that two of the five dimensions of service quality, namely reliability and assurance, contributed to 59\% of service level variance. Female patients showed larger mean differences than male patients. The greater the number of visits to the hospital, the smaller is the difference between expectations and perceptions. Patients in the category 36-45 years of age, showed larger mean differences than younger or older patients. Respondents with no academic qualifications had lower expectations of the service, while professional people seemed to

have more realistic expectations prior to a visit to the hospital than respondents in the technical/clerical category.

De Man, Stefanie; Gemmel, Paul; Vlerick, Peter; Van Rijk, Peter; Dierckx, Rudi (2002)\textsuperscript{12} in their article found that Patients' and personnel's perceptions of service quality were analysed the position of nuclear medicine organisations in the service triangle theory of Haywood-Farmer [Int J Production and Operations Management 1988; 6:19-29]. After distinguishing the service quality dimensions of nuclear medicine, a comparison was made between the service quality perceptions of patients (n=259) and those of personnel (n=24). They examined the importance of different service quality dimensions by studying their relationship to patients’ satisfaction. The proposed five dimensions of SERVQUAL, the most commonly used service quality measurement scale, were not confirmed. Patients considered tangibles and assurance as one dimension, while the original empathy dimension was separated into empathy and convenience. Personnel perceived all service quality dimensions as less good than patients, except for empathy. Results indicated that patients’ perception of service quality was correlated with patient satisfaction, especially in terms of reliability and tangibles-assurance. Based on these service quality dimensions, they suggest that nuclear medicine services need to optimise their physical and process component and the technical skills of personnel.

\textsuperscript{12} De Man, Stefanie; Gemmel, Paul; Vlerick, Peter; Van Rijk, Peter; Dierckx, Rudi, “Patients' and personnel's perceptions of service quality and patient satisfaction in nuclear medicine”, European Journal of Nuclear Medicine & Molecular Imaging; 29 (9): 2002, 1109.
Sureshchandar, Chandrasekharan Rajendran, Anantharaman (2002)\textsuperscript{13} in their research literature on service quality pointed out numerous researchers administering various models across the world in the past few years. Nevertheless, the SERVQUAL instrument forms the basis on which all other works have been actualized. Interestingly, the conceptualization, measurement and applications of SERVQUAL across different industrial and commercial settings are not bereft of controversies either. A careful examination of the instrument divulges that the factors and the corresponding items are not comprehensive as it appears that the instrument has left out certain important constituents of service quality. In this background, the current research work strives to bring to light some of the critical determinants of service quality that have been overlooked in the literature and proposes a comprehensive model and an instrument framework for measuring customer perceived service quality. The instrument has been designed with specific reference to the banking sector. Data have been collected from customers of banks in a huge developing economy. The proposed instrument has been empirically tested for unidimensionality, reliability and construct validity using a confirmatory factor analysis approach. The present study offers a systematic procedure that could form the cornerstone for providing further insights on the conceptual and empirical comprehension of customer perceived service quality and its constituents.

Herng-Ching Lin, Sudha Xirasagar and James N. Laditka (2004)\(^{14}\) suggested to compare patients' perceptions of service quality at solo and group practices, and examined the association of perceptions with potential patients' loyalty (PPL), the potential for seeking future service from the same clinic. Every third outpatient in all newly started group practices four in solo clinics thirteen in Taiwan in the preceding 4–7 months, including 150 and 50 patients from each group and solo practice, respectively, for a total of 1250 patients. After accounting for random effects of clinical and geographical location, group practice patients perceived significantly higher service quality on all dimensions relative to solo practice patients, after adjusting for age, gender, education, and illness type. All service quality dimensions except assurance were significantly positively associated with PPL after adjusting for age, gender, education, and illness type, and random effects at the clinical and geographical location levels. Patients perceive better service quality at group practices compared with solo practices on all dimensions. Patients’ quality perceptions are significant predictors of PPL. The implications for physician practices both internationally and in Taiwan are discussed, as well as policy implications for the Taiwan government.

Shoshanna Sofaer and Kirsten Firminger (2005)\(^ {15}\) in their study found that as calls are made for a more patient-centered health care system, it becomes critical to define and measure patient perceptions of health care quality and to understand more fully what drives those perceptions. It identifies conceptual and methodological issues that make this task difficult,


including the confusion between patient perceptions and patient satisfaction and the difficulty of determining whether systematic variations in patient perceptions should be attributed to differences in expectations or actual experiences. They propose a conceptual model to help and unravel these knotty issues. They review qualitative studies that report directly from patients on how they define quality; provide an overview of how health plans, hospitals, physicians, and health care in general are currently viewed by patients; assess how patients’ health status and demographic characteristics relate to perceptions of health care quality; and identify where further, or more appropriately designed, research is needed.

Sungjin Yoo (2005)\textsuperscript{16} in his study examines the determinants of consumer satisfaction (CS) with hospitals and clinics using SERVPERF and to measure differences across institutions. Several interesting results are found. First, the major determinants of customer satisfaction at clinics are aspects related with 'tangibles’ and 'empathy’ dimensions of services. Secondly, the factor related with 'reliability’ is important determinant of CS at hospitals. Finally, CS has a significant effect on word of mouth (WOM) and patronage for clinics, whereas CS has a significant effect on WOM but not on patronage for hospitals.

Wisniewski M, Wisniewski H (2005)\textsuperscript{17} in their study noted that, patients’ satisfaction is an important measure of service quality in health care systems. Patients' perceptions about health care systems seem to have been largely ignored by health care managers in developing countries. The


\textsuperscript{17} Wisniewski M, Wisniewski H: “Measuring service quality in a hospital colposcopy clinic”. Int J Health Care Qual Assur Inc Leadersh Health Serv, 18: 2005, 217–228.
aim of this study is to develop a reliable and valid instrument to measure patients’ satisfaction in Turkey. A questionnaire was developed and a total of 1100 patients in 31 different hospitals were interviewed. Factor analysis was utilized to determine the factor structure. The instrument of the patient satisfaction developed in this study provides insights to the researches who study the improvement of patient satisfaction with service quality of hospitals, practitioners, and the decision makers.

Rao KD, Peters DH and Bandeen-Roche K (2006)\textsuperscript{18} in their study developed a reliable and valid scale to measure in-patient and outpatient perceptions of quality in India and to identify aspects of perceived quality which have large effects on patient satisfaction. Cross-sectional survey of health facilities and patients in clinics. Primary health centers, community health centers, district hospitals, and female district hospitals in the state of Uttar Pradesh in north India. A 16-item scale having good reliability and validity is developed. Five dimensions of perceived quality are identified—medicine availability, medical information, staff behaviour, doctor behaviour, and hospital infrastructure. Patients’ perceptions of quality in public health facilities are slightly better than neutral. Multivariate regression analysis results indicate that outpatients and doctors’ behaviour have largest effect on general patient satisfaction followed by medicine availability, hospital infrastructure, staff behaviour, and medical information. For in-patients, staff behaviour has the largest effect followed by doctors’ behaviour, medicine availability, medical information, and hospital infrastructure. The scale developed can be used to measure

perceived quality at a range of facility types for outpatients and in-patients. Perceived quality at public facilities is only marginally favourable, leaving much scope for improvement. Better staff and physician interpersonal skills, facility infrastructure, and availability of drugs have the largest effect in improving patients’ satisfaction in public health facilities.

Rao KD, Peters DH, Bandeen-Roche K (2006)19 in their study stated that internal consistency, validity, and factor structure of the scale are evaluated. The association between patient satisfaction and perceived quality dimensions is examined. A 16-item scale having good reliability and validity is developed. Five dimensions of perceived quality are identified - medicine availability, medical information, staff behaviour, doctor behaviour, and hospital infrastructure. Patients’ perceptions of quality at public health facilities are slightly better than neutral. Multivariate regression analysis results indicate that for outpatients, doctor behaviour has the largest effect on general patient satisfaction followed by medicine availability, hospital infrastructure, staff behaviour, and medical information. For in-patients, staffs’ behaviour has the largest effect followed by doctors’ behaviour, medicine availability, medical information, and hospital infrastructure. The scale developed can be used to measure perceived quality at a range of facility types for outpatients and in-patients. Perceived quality at public facilities is only marginally favourable, leaving much scope for improvement. Better staff and physician interpersonal skills, facility infrastructure, and availability of drugs have the largest effect in improving patients’ satisfaction at public health facilities.

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Tolga Taner, Jiju Antony (2006)\textsuperscript{20} in their study examine the differences in service quality between public and private hospitals in Turkey. This study applies the principles behind the SERVQUAL model and compares Turkey's public and private hospital care service quality. The study sample contains a total of 200 outpatients. Through the identification of 40 service quality indicators and the use of a Likert-type scale, two questionnaires containing 80-items was developed. The former measured patients' expectations prior to admission to public and private hospital service quality. The latter measured patient perceptions of provided service quality. The results indicate that inpatients in the private hospitals were more satisfied with service quality than those in the public hospitals. The results also suggest that inpatients in the private hospitals were more satisfied with doctors, nurses and supportive services than their counterparts in the public hospitals. Finally, the results show that satisfaction with doctors and reasonable costs is the biggest determinants of service quality in the public hospitals.

Lo S., and McKechnie S (2007)\textsuperscript{21} in their study investigated the role of perceptions of service quality and sacrifice in patients attending the accident and emergency (A&E) departments with minor medical conditions that can be treated by their general practitioner (GP). Perceptions of service quality were measured by using modified service quality performance indicators. Perceptions of monetary and non-monetary sacrifice were also calculated. Questionnaire-based data were gathered prospectively through a

\textsuperscript{20} Tolga Taner, Jiju Antony, “Comparing public and private hospital care service quality in Turkey”, Leadership in Health Services, 19 (2): 2006, pp.1 - 10

random sample of adult patients who exhibited minor medical conditions at a UK teaching hospital A&E department. Service quality perceptions played a major part in the decision to attend A&E, whereas sacrifice perceptions did not. Perceptions of competence and credibility were the most important quality determinants and were rated higher for A&E than GP. Given that there were some misconceptions about the quality and nature of services each setting provides, recent reforms bringing about an ever-expanding range of healthcare service options may cause further confusion in patient decision-making.

Nazlee Siddiqui and Shahjahan Ali Khandake (2007)\textsuperscript{22} in their study found that despite recent developments in the Bangladesh healthcare sector, there is still great concern about the quality of healthcare services in the country. This study compared the quality of healthcare services by different types of institutions, i.e. public and private hospitals, from the perspective of Bangladeshi patients to identify the relevant areas for development. A survey was conducted among Bangladeshi citizens who were in-patients in public and private hospitals in Dhaka city and hospitals abroad within the last one year. About 400 exit-interviews were conducted using a structured questionnaire that addressed the probable factors of the quality of healthcare services in 5-point interval scales. The results gave an overview of the perspectives of Bangladeshi patients on the quality of service in three types of hospitals. The quality of service in private hospitals scored higher than that in public hospitals for nursing care, tangible hospital matters, i.e. cleanliness, supply of utilities, and availability of drugs. The overall quality

of service was better in the foreign hospitals compared to that in the private hospitals in Bangladesh in all factors, even the ‘perceived cost’ factor. This paper provides insights into the specific factors of the quality of hospital services that need to be addressed to meet the needs of Bangladeshi patients.

Tracey Dagger and Jillian Sweeney (2007)\textsuperscript{23} in their study found that service experiences often unfold over a series of consumption episodes, yet customer perceptions of these experiences are often treated as static events. This prevents a good understanding of the impact of consumption stage on service perceptions. Prior research reveals little about the variation in the salience of service quality attributes between novice and longer-term customers, especially in terms of contribution to overall service quality perceptions or about the effect of service quality and service satisfaction on behavioural intentions across consumption stages. This study examines these issues using cohort analysis within the context of ongoing health care services. Results indicate that the contribution of attributes to overall service quality differs across novice and longer-term customer cohorts, as the interrelationship of service quality, satisfaction, and behavioural intentions. These findings have important implications for managing service processes, improving service provider performance, and enhancing customer service.

Havva Çaha (2008)\textsuperscript{24} in his study found that, as it is known, following health reforms realized in Turkey over the course of last several years the patients, who have social security, have started to benefit from private


hospitals. How they are satisfied from the services given by private hospitals thus becomes an important issue. It is evident that more than half of private hospitals along the country are found in Istanbul. This leads, eventually, to a high level of competition among private hospitals in the level of Istanbul. It is a matter of fact that the customer satisfaction plays important role in the competition among private hospitals more than ever before in this city. Considering that reality this study emphasizes on the consumer satisfaction in the private hospitals found in Istanbul. Based upon a survey this study uses a dynamic model in determining the quality of hospital and the consumer satisfaction.

Mayuri Duggirala, Chandrasekharan Rajendran, Anantharaman (2008) in their research paper identify dimensions of patient-perceived total quality service (TQS) in the healthcare sector. Further, the impact of the dimensions of patient-perceived TQS on patient satisfaction is examined. A questionnaire has been developed based on an extensive literature review of research in service quality and based on responses of the pilot survey among patients recently discharged from hospitals. The instrument thus developed has been examined for its psychometric properties using tests of reliability and validity. Multiple regression analysis has been used to examine the impact of the dimensions of patient-perceived quality on patient satisfaction. Findings highlight seven distinct dimensions of patient-perceived TQS and the relationships among them. Positive and significant relationships among the dimensions and patients’ satisfaction have been found. This instrument would enable patients to provide feedback to

hospitals regarding the quality of healthcare received by them. Hospitals could use this feedback to analyse their performance, gauge patient satisfaction and benchmark their performance against competitive hospitals.

Padma (2008)\textsuperscript{26} in her paper found that, the increasing purchasing power of Indian customers and the significant growth in the industry have led to stiff Indian competition in the Indian healthcare sector. It has become vital for the healthcare providers to deliver and sustain quality practices in order to get established in the global health scenario. The main objective of the paper is to determine the dimensions of service quality in Indian hospitals, from patients’ perspective. Based on the existing models and the literature on healthcare services, the authors have proposed a framework to conceptualize and measure hospital service quality. This would enable hospital managers understand how patients evaluate the quality of care provided and aid them to allocate resources to various aspects of healthcare, considered to be important by the patients. A questionnaire has been developed for measuring the dimensions of hospital service quality and is being validated. The current work could be extended to determine the link between various aspects of hospital services and patient satisfaction.

Peter Meredith Hansen, David H. Peters, Kavitha Viswanathan, Krishna Dipankar Rao, Ashraf Mashkoor and Gilbert Burnham (2008)\textsuperscript{27} in their study identified factors associated with client perceptions of the quality of primary care services in Afghanistan. Cross-sectional survey of outpatient

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health facilities, health workers, patients and caretakers report relatively high levels of perceived quality in Afghanistan. Most of the variation that is explained relates specifically to the patients’ interaction with the health workers and not to other health facility characteristics, such as cleanliness, infrastructure, service capacity and the presence of equipment or drugs. The strongest determinants of client-perceived quality identified are health worker thoroughness in taking patient histories, conducting physical examinations and communicating with patients. Being seen by a doctor and being from a household in the poorest condition are also associated with higher perceived quality. For female patients, being seen by a female provider is associated with higher perceived quality, while for male patients time and money spent for travel to the health facility are negatively associated with perceived quality. Clinical quality and client perceived quality appear to be mutually reinforcing, and efforts to improve health worker performance in taking histories, conducting exams and communicating with patients are likely to increase client perceived quality in this setting. Clients’ perceptions of service quality assume additional importance in Afghanistan, where the perceived legitimacy of the government may depend partially on its ability to convince the population that it can deliver essential health services.

Deng-Juin Lin, Ya-Hsin Li, Jar-Yuan Pai, Ing-Cheau Sheu, Robert Glen, Ming-Jen Chou and Ching-Yi Lee (2009)\(^{28}\) in their study explained that, the effective response rate was 91.4%. Several methods verified the validity. Cronbach's alpha on internal reliability was above 0.902. On

patients’ satisfaction, expectation scores are high: 6.50 (0.82), but perception scores are significantly lower 6.14 (1.02). Older patients’ perception scores are lower than younger patients’ perception. Expectation and perception scores for patients with different types of jobs are significantly different. Patients with higher education have lower scores for expectation \( r = -0.09 \) and perception \( r = -0.26 \). Factor analysis identified three factors in the 22 items SERVQUAL form, which account for 80.8% of the total variance for the expectation scores and 86.9% of the total variance for the satisfaction scores. Expectation and perception score gaps in all 22 items are significant. The goodness-of-fit summary of the SEM results indicates that expectations and perceptions are positively correlated, perceptions and loyalty are positively correlated, but expectations and loyalty are not positively correlated. The results of this research suggest that the SERVQUAL instrument is a useful measurement tool in assessing and monitoring service quality in kidney disease screening services, enabling the staff to identify where service improvements are needed from the patients’ perspectives.

Ioannis E. Chaniotakis, Constantine Lymperopoulos, (2009)\textsuperscript{29} in their paper explain the effect of service quality (SQ) dimensions on satisfaction and word of mouth (WOM) in maternities in Greece. Based on Parasuraman et al.’s SERVQUAL variables, the authors tried to identify the effects of each variable to satisfaction and WOM. Data were collected through field research among 1,000 mothers who have given birth to children during the last five years, and the data were analysed using SEM. The results suggest that, in addition to “satisfaction”, the only service quality dimension that

\textsuperscript{29} Ioannis E. Chaniotakis, Constantine Lymperopoulos, ”Service quality effect on satisfaction and word of mouth in the health care industry”, Managing Service Quality, 19 (2): 2009, 229 – 242.
directly affects WOM, is “empathy”. In addition, “empathy” affects “responsiveness”, “assurance” and “tangibles” which in turn have only an indirect effect to WOM through “satisfaction”. There are limitations due to the use of a non-probability sample and the restricted geographical area of the field research. This study contributes to the body of academic knowledge by shedding more light into the role of SQ dimensions, and especially “empathy”, in the WOM for maternities. An understanding of the effect of SQ dimensions in satisfaction and WOM is important to maternities’ marketing managers because it offers them the opportunity to take certain actions for improving customers' satisfaction and increase their intention to use positive WOM.

Juma and Manongi (2009)\textsuperscript{30} in their paper found that Use of users’ perception in measuring quality of care has been shown to be useful in screening problems and in planning for improvement of quality of health care delivery. Traditionally, quality of care has been measured using professional standards, neglecting users’ opinions which may leave psychosocial needs unattended. The objective of this descriptive cross-sectional study was to assess users’ perceptions of quality of care given at outpatient department (OPD) at Kilosa District Hospital in Central Tanzania. Hospital based exit interviews were conducted to adult patients or caregivers of children attending the hospital. Focus Group Discussions were conducted among community members in selected villages within the hospital catchment area. Information on perceptions on care provider-patient interaction, cost of service, availability of medicines, equipment and health

personnel were sought from the participants. Overall OPD was perceived to have several shortcomings including verbal abuse of patients by care providers, lack of responsiveness to patients’ needs, delays, inadequate examination, unreliable supply of medicines, lack of confidentiality and favouritism in health care provision. Cost of service was perceived to be reasonable provided medicines were available. In conclusion, provider-patient interactions, timely services, supply of medicines and favouritism were the major factors affecting quality of service at the hospital. Efforts should be made to address the shortcomings so as to improve quality of care and users perceptions.

Mário Lino Raposo, Helena Maria Alves, Paulo Alexandre Duarte (2009) in their study noted that the assessment of patients’ satisfaction levels, and the knowledge of what factors influence satisfaction are very important for healthcare managers as it influences healthcare results and healthcare institutions financial results. The objective of this research is to analyse patients’ satisfaction levels in a set of four Portuguese primary Healthcare Centres, through the estimation of a satisfaction index, which simultaneously explains which dimensions of the most healthcare quality which influence that satisfaction. For that, a conceptual model of patients’ satisfaction in primary healthcare was tested using data from a sample of 414 patients. Partial Least Squares path modelling (PLS) was the technique chosen to evaluate the proposed model. The results show that patients’ satisfaction is 60.887 in a scale from 1 to 100, revealing only a medium level of satisfaction. It is also possible to conclude that the most important

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positive effects on satisfaction are the ones linked to the patient/doctor relationship, the quality of facilities and the interaction with administrative staff.

Mihaela Cornelia and Simona Vasilache (2009)\(^{32}\) in their paper present the differences in patient perception on healthcare services quality, on a sample of ten Romanian clinics. The global satisfaction evaluation was based on three analyzed variables, namely the perceived competence of physicians, the perceived competence of nurses, and the empathy of the hospital personnel. In a quality-oriented perspective and, at the same time, in a relationship-oriented perspective, these elements were regarded as essential for the way in which the patient, without being fully informed as far as the characteristics of the processes taking place in hospitals are regarded, evaluates, while being in a state of physical and psychical distress, the quality of the healthcare experience they live. Their purpose, while choosing these variables for analysis, was to approach this experience by keeping it as undivided as possible, because it is a latent concept, difficult to measure, and they have to account for the reductionism of the statistical model. The main data processing method is PROXSCAL (multidimensional scaling), in SPSS (Statistical Package for Social Sciences), by which they created proximities from data expressing patient satisfaction, grouping, then, the clinics based on their similarities, as far as patient perceptions on the service quality are concerned. The conclusions of the study serve as an orientation tool on the healthcare services market, by quantifying each clinic’s proximity other, and by outlining the factors which make the

patients perceive groups of clinics in similar ways. These factors explain the favourable, or unfavourable perceptions on a certain type of clinics and the general influences on the healthcare sector, in its entirety.

Minsoo Jung, Keon-Hyung Lee and Mankyu Choi (2009) in their study examined how the perception and the satisfaction of outpatients who utilized clinics and hospitals are structurally related with their willingness to utilize the same institution in the future. Three hundred and ten responses (via convenient sampling) were collected from 5 hospitals and 20 clinics located in Seoul listed in the Korea National Hospital Directory 2005. Service quality was utilized as the satisfaction measurement tool. For analysis, they used a structural equation modeling method. The determining factors for general satisfaction with medical services are as follows: medical staff, reasonability of payment, comfort and accessibility. Such results may involve increased competition in the medical market and increased demands for quality medical services, which drive the patients to visit hospitals on their own on the basis of changed determining factors for satisfaction. The structural equation model showed that the satisfaction of outpatients with the quality of medical services is influenced by a few sub-dimensional satisfaction factors. Among these sub-dimensional satisfaction factors, the satisfaction with medical staff and payment were determined to exert a significant effect on overall satisfaction with the quality of medical services. The structural relationship in which overall satisfaction perceived by patients significantly influences their willingness to use the same institution in the future was also verified.

Akter, Shahriar, D’Ambra, John, and Ray, Pradeep (2010)\textsuperscript{34} in their study explained health challenges present arguably the most significant barrier to sustainable global development. The introduction of ICT in healthcare, especially the application of mobile communications, has created the potential to transform healthcare delivery by making it more accessible, affordable and effective across the developing world. However, there is growing concerns about the quality of such services with regard to the robustness of the service delivery platform, knowledge and competence of the provider, privacy and security of information and above all, their effects on satisfaction, future use intentions and quality of life. The aim of this paper is to explore, analyze and critically assess the use of existing service quality theories in the light of evolving and ubiquitous healthcare services and their underlying technologies. The conceptual model of the study identifies that there are three primary quality dimensions (platform quality, interaction quality and outcome quality) and ten subdimensions (System reliability, system efficiency, system availability, system adaptability, system privacy, assurance, responsivness, empathy, functional benefits and emotinal benefits) which play a vital role in capturing users’ overall perceptions of mobile health services. Finally, the study identifies future research directions and highlights the managerial implications in the context of developing countries.

Gang Liu, Manage. Sch., Jilin Univ., Changchun and China Baoshan Ge (2010)\textsuperscript{35} in their study explained that the highest class hospitals'

\textsuperscript{34} Akter, Shahriar, D’Ambra, John, and Ray, Pradeep, “User Perceived Service Quality of mHealth Services in Developing Countries”, Research Paper, 18th European Conference on Information Systems, 2010.
outpatient service quality is always the highlight for the public. The outpatient service operation process impacts the perceived service quality definitely. It is important to analyse how these operation factors influence the service quality in this particular scenario. Then to discover the PFI of the operation factors in practice and help the Chinese hospitals to improve their service quality.

Jayesh P. Aagja, Renuka Garg, (2010) in their paper develop a scale for measuring perceived service quality for public hospitals from the users’ and patients’ perspective. The objective is to measure perceived service quality of public hospitals. Standard scale development research procedure recommended by experts was followed. First, literature review of studies to measure service quality was undertaken. Later, Delphi method (two iterations) was used. Interviews were conducted of experts and customers for understanding and generating items for perceived service quality for public hospitals. A survey was then undertaken first for development of the scale and later for validation purpose. The proposed scale PubHosQual in this study could be used as a diagnostic tool to identity areas where specific improvements are needed, and to pinpoint aspects of the hospitals’ services that require modification. The paper is an attempt to develop an instrument to incorporate the “voice of the customer.” Most relevant studies about perceived service quality for public hospitals either do not have stable factor structure or they are relying on generic SERVQUAL scale to measure service quality. The new scale fills the gap of absence of a validated scale to measure perceived service quality for public hospitals.

Panchapakesan Padma, Chandrasekharan Rajendran, Prakash Sai Lokachari, (2010)\textsuperscript{37} in their paper conceptualize hospital service quality (SQ) into its component dimensions from the perspectives of patients and their attendants; and to analyse the relationship between SQ and customer satisfaction (CS) in government and private hospitals in India. The study employs questionnaire-survey approach to obtain the perceptions of patients and attendants. The instruments developed have been validated using tests for reliability, validity and uni-dimensionality. Data collected have been analysed by using statistical techniques such as bi-variate correlation and multiple regression. Patients and attendants treat the interpersonal aspect of care as the most important one, as they cannot fully evaluate the technical quality of healthcare services. The study also revealed that the hospital service providers have to understand the needs of both patients and attendants in order to gather a holistic view of their services. Results of the study dependent on the nature and number of respondents, i.e. the study has captured only the perceptions of service receivers – patients and attendants; and sample size of the study – 204 patients and 204 attendants. It has limited response rate and other operational constraints. The present study allows the hospital administrators to benchmark their hospitals with those of their competitors by comparing the mean values of the dimensions of SQ. The study also allows a comparison of the performance of government and private hospitals in terms of the services offered.

Rajinder Singh (2010)\textsuperscript{38} in his paper explained that hospital marketing is a specialized field that deals with connecting patients, physicians, and hospitals. Patients nowadays are more aware and more quality conscious than before. It stands to reason that a high level of quality, which can translate into patient satisfaction, is important for a hospital. Consumer satisfaction is important to the hospital because it is generally assumed to be a significant determinant of repeated visit, positive word-of-mouth, and patients’ loyalty. Patients’ perceptions about health services seem to have been largely ignored by health care providers in developing countries. The important reasons to visit government hospitals are less charges, geographical proximity, recommended by their friends or relatives. Patients are found to be dissatisfied with the doctors’ checkup. Perceptions, especially about service quality, might shape confidence and subsequent behaviours of patients with regard to choice of hospitals.

Amira ep Koubaa Eleuch, (2011)\textsuperscript{39} aims to assess Japanese patients' healthcare service quality perceptions and to shed light on the most meaningful service features. Through a non-linear approach, the study relied on the scatter model to detect healthcare service features' importance in forming overall quality judgment. Japanese patients perceive healthcare services through a linear compensatory process. Features related to technical quality and staff behaviour compensate for each other to decide service quality. A limitation of the study is the limited sample size. Non-linear approaches could help researchers to better understand patients' healthcare service quality perceptions. The study highlights a need to adopt an


evolution that enhances technical quality and medical practices in Japanese healthcare settings. The study relies on a non-linear approach to assess patient overall quality perceptions in order to enrich knowledge. Furthermore, the research is conducted in Japan where healthcare marketing studies are scarce owing to cultural and language barriers. Japanese culture and healthcare system characteristics are used to explain and interpret the results.

Laith Alrubaiee and Feras Alkaa'ida (2011)⁴⁰ in their study investigated the relationship between patient perception of healthcare quality, patient satisfaction, and patient trust and the mediating effect of patient satisfaction. The study also tests the significance of socio-demographic variables in determining healthcare quality, patient satisfaction, and patient trust. Patient perception of healthcare quality was measured using modified SERVQUAL model and results indicate that it appears to be a consistent and reliable scale. Finding indicates that, while patients’ perception of healthcare quality has a strong and positive impact on the patients’ satisfaction patients’ trust and patients’ satisfaction has also significant impact on patients’ trust. Moreover, patients’ satisfaction appears to play an important mediating role in increasing the strength of the association between healthcare quality and patients’ trust in healthcare service provider. Results confirm the varying importance of some socio-demographic variables on patient perception of healthcare quality, patients’ satisfaction, and patients’ trust. It has also been found that private hospitals have higher overall healthcare quality than public hospitals. The study

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indicates that patients of private hospitals are more satisfied and feel more trust in healthcare service provider than public hospitals.

Mercy Mpinganjira (2011)\textsuperscript{41} in his article found that understanding customers’ views on service quality is critical for any service provider interested in ensuring that they are being responsive to clients. Patients’ service quality perceptions are however often given little or no attention in health service quality improvement programmes. In this study data was collected from 220 patients of a private medical practice. The focus was on patients’ service quality perceptions and how these relate to overall satisfaction as well as future behavioural intentions. The findings show that patients’ perceptions on service quality play a significant role in determining their overall satisfaction with a service provider and that patients’ overall satisfaction is critical in determining their future positive behavioural intentions towards a service provider. The implications of the findings are that there is need for patients’ voice to start playing a greater role in the design and evaluation of health care service improvement programmes are more in private medical practices.

Pia Polsa, Karen Spens, Alabi Soneye, Imoh Antai, (2011)\textsuperscript{42} in their study found that Services in private hospitals are considered to be superior to those of public hospitals. Research on the service quality in hospitals in developing countries is scarce, in comparison with the customer-perceived quality of the two types of healthcare systems. The present study compares


the perceived quality of private and public health services in Nigeria. The results show positive perceptions of both healthcare systems. However, when high-level hospitals were excluded, the scores for the private hospitals were higher. These findings are in line with earlier studies on hospitals in developed countries, but differ from previous findings on healthcare in developing countries.

Rizwan Ahmed and Hina Samreen (2011)\(^{43}\) in their study explored the dimensions of the SERVQUAL model which are the significant determinants of service quality, in terms of patients’ satisfaction, in the selected hospitals of Karachi. For this purpose, data was collected from 252 outpatients visiting three selected hospitals each from public sector, private sector and semi-public sector. The technique of factor analysis is used to extract the important factors on the basis of responses obtained from patients. Factor analysis resulted in five factors. The key findings of this study are the regression models obtained for all three hospitals. These models have the predictors that are statistically significant determinants of the patients’ satisfaction for each hospital.

Shi H. Zhao and Thitinut Akkadechanunt (2011)\(^{44}\) in their study explained patients’ perceptions of quality nursing care. Under the changing health care environment, more emphasis is placed on patient-centered care. To meet patients’ needs and expectations, patients’ perceptions of quality nursing care must be given more concern; thus, 440 patients (purposive sample) in 18 inpatient nursing units in a China hospital were selected. A

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questionnaire on the perception of quality nursing care scale was distributed to patients to find out the level of quality care perceived by them. Using descriptive statistics to analyze patients’ data, the overall mean score and each category mean score of the quality of nursing care as perceived by patients were at a high level. Patients perceived the highest mean score in the category of progress of the nursing process, while they perceived the lowest in preconditions for care. It was also observed that quality nursing care presented a challenge for nursing administrators to develop strategies for improving nursing care in those categories where patients had lower quality nursing care than others, such as psychological support or the nurse’s sense of humour.

Upul Senarath and Nalika S. Gunawardena (2011) in their study aimed to develop and validate an instrument to measure patient perception of quality of nursing care and related hospital services in a tertiary care setting. They compiled an instrument with 72 items that patients may perceive as quality of nursing care and related hospital services, following an extensive literature search, discussions with patients and care providers and a brainstorming session with an expert panel. A cross-sectional study was conducted at the National Hospital of Sri Lanka. A sample (n = 120) of patients stayed in general surgical or medical units responded to the interviewer who administered instrument upon discharge. Item analysis and principal component factor analysis were performed to assess validity, and internal consistency was calculated to measure reliability. Of the 72 items, 18 had greater than 20% of responses as ‘not relevant’. A further 11 items

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45 Upul Senarath and Nalika S. Gunawardena, “Development of an Instrument to Measure Patient Perception of the Quality of Nursing Care and Related Hospital Services at the National Hospital of Sri Lanka” Asian Nursing Research, 5 (12), 2011, 71-80.
were eliminated since item-total correlations were less than .2. Factor analysis was performed on remaining 43 items which resulted in 36 items classifying into eight factors accounting for 71% of the variation. Factor loadings in the final solution after Varimax rotation were interpersonal aspects (.68–.85), efficiency (.62–.79), competency (.66–.68), comfort (.60–.84), physical environment (.65–.82), cleanliness (.81–.85), personalized information (.76–.83), and general instructions (.61–.78). The instrument had high Internal consistency (Cronbach’s alpha = .91). They developed a comprehensive, reliable and valid, 36-item instrument that may be used to measure patient perception of quality of nursing care in tertiary care settings.

Abdulhamid Al-Khalil and Ali Bassam Mahmoud (2012)\(^{46}\) in their study suggested that the assessment of health care service quality is considered one of the important indicators utilized by decision makers in the process of enhancing and developing the quality of the health care services provided through hospitals. This study aims at assessing patients’ perception towards the quality of health care services provided at the public hospitals affiliated to the Syrian ministry of health in Damascus. The results of (677) valid questionnaires revealed that patients had perceived positively the three dimensions of health care service quality which are: “Health Care”, “Health Personnel”, and “Health Facilities”. It was also found that female lower educated patient would hold less positive perceived quality for the health care services than other categories of patients do. Recommendations are discussed later.

Ahasanul Haque, Abdullah Al Mamun Sarwar, Farzana Yasmin Aftab Anwar, Nuruzzaman (2012)\textsuperscript{47} in their study developed and tested the modified SERVQUAL model to measure Malaysian private healthcare quality. A total of 131 participants were selected randomly from those who visited private hospitals in Malaysia for healthcare facility. Then data were examined using means, correlations, principal component and exploratory factor analysis to establish the modified SERVQUAL scale’s reliability, underlying dimensionality and convergent, discriminant validity. This paper than utilizes the structural equation modeling technique to do confirmatory factor analysis and tested the hypothesized positive inter-relationships between customers’ perception and customers’ satisfaction. This paper reviews and identifies essential service quality variables that are associated with the customer satisfaction in the private hospital. Customers’ satisfaction should reflect the need of healthcare quality requested by the customers, as direct and indirect relationships exist between personnel support and customer satisfaction and attention to customers and hospital facilities and between hospital facilities and customer satisfaction. The proposed model has been tested on only one private hospital in Malaysia due to short period. Due to this small sample size and the convenient method of data collection, there is a possibility of biasness of the authors may play a role in the outcome of the study. The main contribution of this study is that, it proposes a way to assess quality services in the private hospitals. This study has proposed a conceptual model that need further investigation and opens a way for future research.

Ahmad Mahmoud Zamil, Ahmad Yousef Areiqat and Waleed Tailakh (2012)\textsuperscript{48} in their study measured the Impact of Health Service Quality on Patients’ Satisfaction in the Hospitals of Public and Private sectors in Jordan. To attain the aim of this study a random sample of inpatients was chosen to conduct this study. The sample consisted of 450 inpatients. To determine the impact of Health Service Quality on Patients’ satisfaction the researcher used a special measure called "SERVPERF" which was designed specially to measure the quality of service in different Service sectors the content validity of the measure conducted by committee arbitrators and throughout the multiple use of this measure over the time. The reliability of the measure was computed by using Cronbach alpha and the result indicated that the internal consistency of the measure was 90%.

Kavitha (2012)\textsuperscript{49} in her article noted that, Nowadays, patients’ satisfaction is an integral part of hospital management across the world. The health care industry in recent years has restructured its service delivery system. The restructuring has focused on finding effective ways to satisfy the needs and desires of the patients. Patients’ satisfaction is a basic requirement for healthcare provider because, the satisfaction related to quality of healthcare is provided by hospitals. The main focus of the study is to measure the patients’ satisfaction in healthcare service provided by the two hospitals. In these two hospitals, a sample of 400 in- patients were selected to collect the primary data through SERVQUAL model and also Donabedian’s framework was used to measure the patients’ satisfaction. The


finding of the study shows that the private hospital is performing better in providing service quality and give satisfaction according to the needs of the patients.

Kenneth N. Wanjau, Beth Wangari Muiruri and Eunice Ayodo (2012)\textsuperscript{50} in their paper to explore the factors affecting provision of service quality in the public health sector in Kenya, focusing on employee capability, technology, communication and financial resources. The paper reviews existing literature and experiences on public health service provision and quality management. The paper reports on empirical evidence drawn from a case study of Kenyatta National Hospital, the largest referral hospital in Eastern & Central Africa. A total of one hundred and three respondents, comprising; sixteen doctors, thirty two nurses, twenty nine clinical officers, fourteen laboratory technologists and twelve pharmacists. Data was collected using closed and open ended questionnaires. In the paper the implications for policy include: comprehensive healthcare policy, addressing the plight of the worker, the working environment, the resources to enable the healthcare personnel perform effectively, and emotional intelligence management of the workforce. The paper shows that the respondents in this study were various professionals in the healthcare provision, covering the comprehensive process of healthcare provision from diagnosis to treatment. The approach to study the largest referral hospital in Eastern and Central Africa region and data collected is indicative of special case of Kenyatta National hospital and may be entirely different from other public health institutions within the Eastern and Central African region.

Peer, Mohammed (2012)\textsuperscript{51} in his dissertation investigates customers’ expectations and perceptions of service quality at a private medical practice. The competitive nature of the healthcare industry means that customers have a wide choice of providers from whom to choose. Thus, providers’ inability to deliver an acceptable quality of service and customer dissatisfaction is more likely to lead to critical customer behaviours such as switching medical providers and/or influencing others negatively in their perception of a provider"s service quality. In order to meet customers’ expectations of service quality, organisations must have a system in place that enables them to identify the service expectations of their customers and, furthermore, must ensure that these expectations are met. To achieve its aims, this study utilised both qualitative and quantitative research approaches. The qualitative research was in the form of in-depth interviews while a structured questionnaire using an adapted SERVQUAL instrument was used for the quantitative phase of the study. The findings of the in-depth interviews were used to adapt the SERVQUAL instrument. The sample size consisted of 220 respondents and systematic sampling was used. Data collected was analysed using the computer programme Statistical Package for Social Science. Descriptive statistics and non-parametric tests including the Mann-Whitney and Kruskai-Wallis tests were the main statistical tools used in the analysis. The results of the study show that patients generally perceive the service quality offered at the medical practice as good on all items. However, when the perception scores were compared to the expectations scores, the findings showed that the expectations were higher than the perceptions on most items. Furthermore, the results showed a positive relationship between

patients’ satisfaction and positive future behavioural intentions toward a medical practice. In conclusion, it can be said that service quality provided at the medical practice is good. However, attention needs to be given to the differing expectations and perceptions of the medical practices patients, with the aim of closing the gap were identified. This can be done by better understanding the Gaps model of service quality with particular reference to provider gap 2 (selecting the right service standards) and provider gap 3 (delivering according to service designs and standards). Measures taken were aimed at closing these two gaps which can help to ensure that customer expectations are met.

Renganathan (2012)\textsuperscript{52} in his study analyses the hotel guests’ expectations and perceptions of hotel services and the role of demographic variables in evaluating the Service quality and also to ascertain how Factor analysis can be used to identify number of factors underlying SERVQUAL components (items). Statistical methods like descriptive analysis, reliability analysis, multiple regressions and exploratory factor analysis were used to evaluate the service quality. The findings of the research showed that with regard to individual SERVQUAL dimensions, gap values are positive for tangibles, reliability, assurance and gap values are negative for responsiveness and empathy. With regard to Factor analysis, data on hotel guests’ perceptions divided SERVQUAL items into four main factors, with Eigen values greater than 1.0 and data on expectations divided SERVQUAL items into three main factors, with Eigen values greater than 1.0. It is recommended to the managers’ of the hotels to understand the expectations

of their guests and make their service personnel to respond as per their guests expectations and also to be compassionated enough to serve their guests appropriately. Managers can utilize the guests feedback to understand their perception towards the various hospitality aspects of the hotels.

Sunil C. D’Souza and A.H. Sequeira (2012)\textsuperscript{53} in their study explained that in today’s highly competitive environment, health care organizations are increasingly realizing the need to focus on service quality as a measure to improve their competitive position. While there has been a plethora of conceptual and empirical research regarding the many complexities involved in services marketing, few endeavours have been directed towards integrating the customers’ assessment into models to improve overall service quality. This article examines service quality through a case study of a health care organization in Mangalore and Karnataka, with a tertiary health provision. The population consisted of patients aged 18–65 years and 45 patients were considered through a purposive sampling technique. The study basically started off using the grounded theory for patient of service quality and this exploration was enabled to formulate a hypothesis; to test the specific hypothesis, the descriptive approach was used. The grounded theory indentified service quality dimensions through open coding, axial coding and selective coding. The analysis was done for the assessment of overall service quality by ‘doctors’, ‘quality of care,’ ‘nursing quality of care’ and ‘operative quality of care’ and the proportion of statistically significant variance. The service quality in which operative quality of care yielded 79 per cent; doctor quality of care yielded 45.6 per cent; and nursing quality of

care yielded 63.8 per cent of explanatory power. The results also indicated there is need to improve doctors’ care in the case of this organization. Service attributes related to this dimension requires management attention to improve the doctors’ care for quality. The article concludes by highlighting the dearth in services marketing research for service quality measurement through patient perspective in health care organizations.

Vicky Papanikolaou and Sotiris Zygiaris (2012) in their paper refers to the increased competition between health care providers and the need for patient-centred services in Greece. Using service quality methodology, this paper investigates service quality perceptions of patients in Greek public primary health centres. To test the internal consistency and applicability of SERVQUAL in primary health care centres in Greece. His analysis showed that there were gaps in all dimensions measured by SERVQUAL. The largest gap was detected in empathy. Further analysis showed that there were also differences depending on gender, age and education levels. A separate analysis of expectations and perceptions revealed that this gap was because of differences in patients’ perceptions rather than expectations. This paper raises a number of issues that concern the applicability of SERVQUAL in health care services and could enhance current discussions about SERVQUAL improvement. Quality of health care needs to be redefined by encompassing multiple dimensions. Beyond a simple expectations–perceptions gap, people may hold different understandings of health care that, in turn, influence their perception of the quality of services.

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Vicky Papanikolaou and Sotiris Zygiaris, “Service quality perceptions in primary health care centres in Greece” Article first published online: 2 FEB 2012.
Yukyoung Kim, Soungmin Kim, Hoon Myoung and Hyung Ryong Lee (2012)\textsuperscript{55} in their study found that South Korean national university dental hospitals (NUDHs) face unprecedented challenges in maintaining primary function as public hospitals and surviving in intensified competition. The aim of the study was to evaluate the perceived service quality of NUDH patients and its influences on behaviour and to gain managerial implications. Perceived service quality, value, satisfaction, and behavioural intention were measured in 438 NUDH patients from 3 NUDHs. With demographic analyses, the authors used structural equation models to test the validity to prove the relationship between dimensions. Results showed that the dimension of dentist concern directly influenced satisfaction and behaviour, and tangibles was the only significant antecedent factor of value that had a significant positive effect on satisfaction. Based on demographic characteristics, highly educated, self-motivated patients who underwent multiple treatments had lower perceptions of value and satisfaction. NUDHs need to maintain their public image and to improve the dimensions of communication and tangibles to gain competitiveness.