Development of Grounded Theory towards the Measurement of Patient Service Quality in Healthcare Organisations

Sunil Cyprian D'Souza & A.H. Sequeira

Abstract

There has been a plethora of conceptual and empirical research regarding the complexities of healthcare services quality measures. There is a need to integrating patient's views into the model to improve healthcare service quality. The paper examined service quality through a mixed method in case healthcare organisations in South India with a tertiary healthcare provision. The study develops the grounded theory for patient service quality and this exploration was enabled to formulate hypothesis, and to test the hypothesis, the descriptive approach was used. The grounded theory indentified patient service quality dimensions as doctors' quality of care, nursing quality of care and operative quality of care through open coding, axial coding and selective coding. Further, the analysis was done for the assessment of service quality through doctors' quality of care,' 'nursing quality of care,' and 'operative quality of care' and proportion of variance statistically found significant. Doctors' quality of care and nursing quality of care yielded lower quality perception than the operational care of quality. The paper concludes by highlighting the major findings of patient service quality in healthcare organisations.

Keywords: Dimensions, Health Care Organisation, Patient Perceived Quality, Service Quality

Introduction

Patient view of healthcare quality is critical to the success of a Health Care Organisation (HCO) because of their influence on patient satisfaction and hospital profitability (Donabedian, 1996). Patient demand more information than ever and do not hesitate to switch to another healthcare provider if they don't obtain satisfaction (Ramsaran-Fowdar, 2008). In the new age of healthcare, the need is to shift the medical paradigm away from the traditional perception that the accepted standard is just to deliver healthcare in a scientific and caring manner. Healthcare systems are fundamental interest to all societies, as societies become more advanced as standard of living rise due to economic development. The Indian healthcare Industry is going through a transition and future is likely to see significant changes in the nature of provision of healthcare and roles of various players in the industry. HCOs are considered the focal points for health services delivery and consume nearly thirty percent of the national healthcare budget (D.M.Pestonjee et al.2005). HCOs treated as professional service firms (Van der Bij et al. 1998). HCOs are moved from pure occupations to definite organisation structure. There is a constant search for a miracle glow that would provide the needed boost to bring HCOs in line with the latest and innovative management tools and techniques available to keep abreast of competition and stay afloat (Chow-Chua and Goh, 2000). The promise of modern quality methods is that they make it possible for professionals and managers to understand and develop the complex systems of care (Overtveit, 2000). In the competitive world of healthcare it becomes more difficult to satisfy a customer (patient). In a situation like this, it is necessary to understand the key factors satisfying a patient in a hospital are its service quality. It may also include quality of performance that is directly connected and closely related to the healthcare such as food, accommodation, safety, security, attitude of employees and other factors that arise in connection with hospitals services. Quality improvement is basic mantra of healthcare providers and there is need to get motivated towards enhancing the service quality. What is needed for those involved in such medical systems to realize the true nature of quality of healthcare and to motivate towards improving the quality is the greater concern of this paper in the dynamic healthcare environment.

Review of Literature

The literature on service quality has given various models around the world. Cronin et al. (2000)

commented that the literature in evaluating service quality, satisfaction, and value is conflicting and confusing. The interrelationships between quality, value, and satisfaction have recent focus of the research to explain how they relate to each other and how they drive consumer behaviour (Cronin et al. 2000). Consensus seems to be growing around the opinion that positive perceptions of service quality lead to increased customer satisfaction and acknowledgement of value. The significant role of service quality plays in achieving customer satisfaction and importance of satisfying customers to gain loyalty and increase profitability, indicates that focus on service quality is beneficial to organisations. Over the years there has been significant progress noted in the measurement of the perceptions of external service quality (Zeithaml et al. 1996; Cronin and Taylor, 1992). The perceived quality of given service will be the outcome of an evaluation process where consumers compare their expectations with service they got (Gronroos, 1984). Perceived quality is a form of attitude, long -run overall evaluation where satisfaction is a transaction -specific measure (Parasuraman et al. 1988). An evaluation of "what" the customer receives in interactions with the service firm is technical quality; "how" the customer receives service is functional quality(Gronroos, 1984). Corporate image results from how consumers perceive the firm (technical quality and functional quality) in addition to external factors (traditions, ideology, word- of- mouth),and marketing activities (advertising, pricing, public relation)(Gronroos,1984). Parasuraman et al. (1985, 1988, and 1991) define perceived quality as a gap between consumer's expectations and consumers perceptions regarding the service. Arnauld et al. (2002) defined perceived quality "whether in reference to a product or service" as "the consumer's evaluative judgment about an entity's overall excellence or superiority in providing desired benefits. The quality of service - both technical and functional - is a key ingredient in the success of service organisation (M.Sadiq, 2003). Technical quality in healthcare is defined primarily on the basis of technical accuracy of the diagnosis and procedures. Functional quality relates to the manner of delivery healthcare services. Patients are often unable to assess the technical quality of medical services accurately; functional quality is usually the primary determinant of patient's perception of quality (M.Sadiq, 2003). There is growing evidence to suggest that perceived quality is the single most important variable influencing consumer's perception of value, and that this, in turn, affects their intentions to purchase products or services(Bolton and Drew,1991;Zeithamal et al.1998). Service quality has recognized as a driver of corporate marketing and financial performance (Buttle, 1996). Although it is widely acknowledged that there is a need for quality indicators of patient view of the quality and some research in this area exists. Parasuraman et al. (1985) identified five dimensions of service quality which includes responsiveness, reliability, assurance, empathy and tangible for various services settings. Based on this dimensions, SERVQUAL instrument was developed. The SERVQUAL has widely used (Buttle, 1996) and criticized for empirical application fail to recover the five dimensions and suggest modifying them (Carman, 1990; Cronin &Taylor, 1992). The later development is in the modification, refinement of dimension to various service settings. Specifically to the HCOs, the eight dimensions are identified as, tangibles, reliability, responsiveness, competence, courtesy, communication, access and understanding customer (Parasuraman et al.1988). Dabholkar et al. (1996) developed retail service quality scale in taking into account of retailing service quality dimensions and developed five dimensions, which are personal interaction, policy, physical aspects, reliability and problem solving. G.S.Sureshchandar et al. (2001) identified twelve dimensions of quality management for service organisation which includes, top management commitment and visionary leadership, human resource management, technical system, information and analysis system, benchmarking, continuous improvement, customer focus, employee satisfaction, union intervention, social responsibility, service

scapes and service culture. The enrichment of service quality literature is observed in the form of dimensions as given by various researchers in changing business environment. The phenomenon contribution to service quality dimensions in healthcare was given by Parasuraman et al. in 1988. Keeping this reference point of the eight dimensions (column 1 of the table 1), the amount of variations on service quality dimensions by key researchers is presented (Table 1). Several authors' caution that the research that explores quality and quality-related issues must built upon a systematic understanding of the different factors or dimensions for the construct 'quality.' The conceptual domain of quality is so wide that it is necessary to use different operational definitions for different situations to capture the complexity and richness of the construct. The identification of service quality dimensions is becoming increasingly important in healthcare, as providers seek to meet the challenges inherent in a more competitive healthcare environment. It is evident that the service quality dimensions are seen as the criteria to assess the service quality in HCOs.

Table 1 : Service Quality Dimensions

Prasuraman et al.(1988) (1)	**Picker/ MHQP (1988) (2)**	**Jun (1988) (3)**	**Bowers (1994) (4)**	**Mittal (1996) (5)**	**Rees (1998) (6)**	**Ovretveit (2000) (7)**	**Scott (2006) (8)**
Tangibles	*	*	*				
Reliability		*	*				
Responsiveness	*	*	*	*	*		
Competence		*	*	*			* Provider Reputation
Courtesy	*	*	*	*	*		
Communication	*	*	Caring	*			
Access	*	*			*		*
Understanding Customer	*	*	Patient Outcome	*	*	*(Client Quality)	*
	Continuity of Care	Collaboration		*	*		
						Professional Quality	
							Medical Necessity
						Management Quality	Determinations *
							Reporting
							Documentation
							Clinical Process
							Utilisation Review

Source: Literature Review

Research Questions

i.What are the key attributes of patient perceived service quality?

ii.How to evaluate the Patient service quality in healthcare organisation?

Objectives

i.To identify the key attributes of patient perceived service quality

ii.To develop the model for patient service quality

Hypotheses

H_1: Doctor care of quality has a relationship with overall service quality

H_2: Nursing care of quality has a relationship with overall service quality

H_3: Operational care of quality has a relationship with overall service quality

Research Methodology

Research used qualitative and quantitative methods so that the resultant mixture has complementary strengths and non-overlapping weakness. The population covers patients from medical college hospitals of South India and 1200 patients were surveyed using purposive sampling technique. The study basically started off using the grounded theory for patient of service quality in one of the healthcare organisation. The study was conducted through personal interview using open ended questions for grounded theory. The potential subjects who met the following inclusion criteria were selected from the roster of case healthcare organisation with the input from the senior nursing supervisor for grounded theory: (1) 18-65 years of age, (2) ability to speak Kannada or English, (3) hospitalised for at least 3 days, (4) not to be suffering from severe mental or cognitive disorders, (5) willing to participate, (6) communicable, and (7) to be well enough to participate in the interview. For initial interviews, the researcher remained as listener and he was just taking notes and believed in the importance of acquired experience as a listener. After each of these interviews, he had taken time to exchange opinions and kept focus on the research problem. This method assures quality of classification and coding as part of grounded theory developed for patient service quality to indentify the service quality attributes. Grounded theory methodology explains the area under investigation based around a "core category" which is in turn supported by sub core categories (Glaser, B.G. 1978). The core category is the important general level behaviour performed in a specific situation, which is then supported by more specific behaviours called sub core categories. The core category is able to explain the majority of the behaviours observed/reported in the area under study (Glaser, 1978). The interview transcripts were open coded for core categories; it was then supported by more specific behaviours called sub categories or axial coding and listing on core category items by selective coding. This exploration was enabled to formulate hypothesis, and to test the specific hypothesis, the descriptive approach was used. The survey questionnaire consist of 35 statements on Likert scale, ranging from 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree. The validity of the instrument was obtained by experts and piloted for a small group of respondents and reliability by Cronbach's alpha. In conformity with the ethical requirements of the study, formal consents for conducting research were obtained. The model fit was determined through factor analysis, regression analysis and the significance by Pearson's correlation.

Results and Discussions

Grounded theory for patient perceived service quality

After going through the entire interview transcripts researcher identified three categories that were open coded as 'doctors' quality of care,' 'nursing quality of care,' and 'operative quality of care.' This was the first-level of categorisation (Table 2).

Table 2 : Open Coding – Patient Perceived Service Quality

Interview Transcript	Core category
· "All doctors are very kind with me..."; "I do not want to know the truth about my health condition..."; "Doctors know what is good for me."	Doctors' quality of care
· "Doctors here are always helpful and supportive; sometimes they make us wait long hours..."; "You see the people here are crowded."	Doctors' quality of care
· "They also treat my family and friends nicely."	Doctors' quality of care
· "Doctor answers my queries satisfactorily."	Doctors' quality of care
· "I had uneasiness to walk after the ultrasound and they communicated with nurses very well to get me a wheel chair..."	Doctors' quality of care
· "Doctors explain clearly about the treatment."	Doctors' quality of care
· "Doctors communicate with nurses very well."	Doctors' quality of care
· "My doctor is always available on time....."; "He listens to me patiently"; "...I got discharged early."	Doctors' quality of care
· "Doctor spoke to my brother very nicely"; "I am very happy about the treatment....."	Doctors' quality of care
· "Doctors are honest."	Doctors' quality of care
· "Nurses here are always helpful and supportive."	Nursing quality of care
· "I was a little uncomfortable to settle my bills..."; "Unused drugs are returned to pharmacy..."	Nursing quality of care
· ".....suddenly I had a drug reaction...They communicated with doctors very well and doctors approached in a few minutes"; "Nurses here really alert the doctors...Great job!"	Nursing quality of care
· "Nurses are available at any time of need."	Nursing quality of care
· "Nurses are always helpful and supportive."	Nursing quality of care
· "Nurses communicate with supportive staff very well."	Nursing quality of care
· "My friend has to go on a call....."; "No attendant is there at my beside...even then they cared for me...I never felt lonely."	Nursing quality of care
· "Here the surroundings are calm and green...Internal atmosphere is attractive."	Operative quality of care
· "Admission process is simple...No need to wait in queue...I got my files very quickly!"	Operative quality of care
· "Accounts staff cleared my bills and arranged me a taxi..."; "Billing system is very good."	Operative quality of care
· "Blood bank service is very good."	Operative quality of care
· "Surgery operation schedule was well planned."	Operative quality of care
· "Laboratory facilities are very good."	Operative quality of care
· "Canteen facility is good."	Operative quality of care
· "We need not get tensed about getting blood group..."; "Blood bank service is good."	Operative quality of care
· "There is delay in getting my report..."; "Laboratory facilities have to speed up..."; "Sometimes they ignore my queries."	Operative quality of care
· "Housekeeping services and canteen facilities are good."	Operative quality of care
· "My physician is ready to spend more time to explain my condition."	Doctors' quality of care
· "I have no complications after my surgery."	Doctors' quality of care
· "My hospital room is clean and pleasant."	Operative quality of care
· "The nursing staff is kind and caring."	Nursing quality of care
· "An accurate diagnosis of my condition was made."	Doctors' quality of care
· "I was able to understand the bill for the services."	Operative quality of care
· "Proper queue management is followed."	Operative quality of care
· "Admission process is simple."	Operative quality of care
· "I believe the equipment at the hospital is modern."	Operative quality of care
· "Billing system is satisfactory."	Operative quality of care
· "Overall cleanliness maintained."	Operative quality of care

Note: Condensed Interview transcripts

Axial Coding

Second-level categorisation was done by axial coding based on the patients' feelings regarding each of the three dimensions as subcategories of previous categories. The recorded feelings were positive, negative and neutral (Tables 3, 4 and 5).

Table 3 : Axial Coding- Doctors' Quality of Care

Doctors' quality of care	Sub-category
• "...doctors are here always helpful and they explain me clearly about the surgery expenses..."	Positive
• "Doctor answered my queries satisfactorily."	Positive
• "Nobody cares for us...; "In these times there is no respect"...; "Our world has become a jungle."	Negative
• "Listen to me my friend..... I am suffering from a kidney stone". "Since now I have visited many hospitals, doctors here are the best I have ever seen...I do not feel pain."	Positive
• "Doctors are honest."	Positive
• "They explain clearly about the treatment."	Positive
• "Doctors here say there is no cure or treatment for this...I do not believe this!"	Negative
• "My doctor gave me worst advice."	Negative

Note: Condensed Interview transcripts

Table 4 : Axial Coding - Nursing Quality of Care

Nursing quality of care	Sub-code category
• "Sometimes I feel caring is a curse..."; "I just asked about my diet...here no body bothering"	Negative
• "Nurses are always helpful and supportive."	Positive
• "Nurses communicate with the doctors very well."	Positive
• "The nursing staffs in this hospital are the best I have ever seen..."; "I do not feel pain..."	Positive
• "Nurses communicate with supportive staff very well."	Positive
• "They communicate with doctors very well."	Positive
• "When I asked to call my doctors, she politely said, "He is on the rounds."	Positive

Note: Condensed Interview transcripts

Table 5 : Axial Coding- Operational Quality of Care

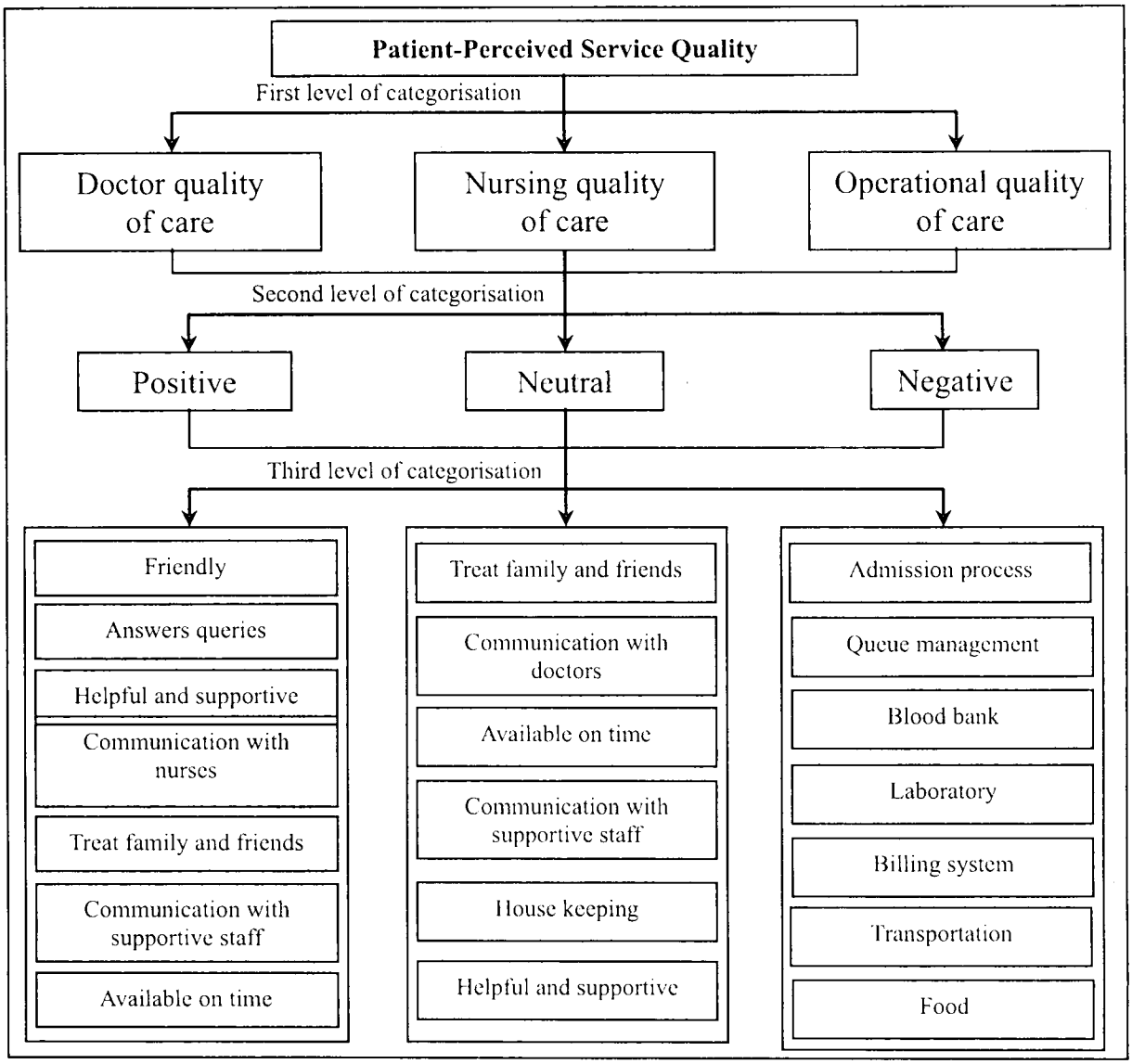
Operational quality of care	Sub-code category
• "He has to seek opinion from superior it seems..."; "Nobody guides me..."	Negative
• "Admission process is simple"	Positive
• "I waited for a long time..."; "Bill is not ready..."; "Now they are contacting the nursing station...!"	Negative

Note: Condensed Interview transcripts

Selective Coding

The third-level of categorisation was done by selective coding; it gives finally the list of specific attributes related to doctors' quality of care, nursing quality of care, and operative quality of care (Figure 1).

Figure 1: Patient-Perceived Service Quality using Grounded Theory



Results of the Survey

Reliability

Owing to multidimensionality of Service Quality, Cronbach Alpha was computed separately for internal consistency. Typically, reliability co-efficient of 0.7 or more are considered to be adequate (Cronbach, 1951, Nunnally, 1978). The reliability coefficient values ranged from 0.6 to 0.8 and agreed upon lower limit of Cronbach Alpha 0.60, in exploratory research (Table 6).

Table 6 : Reliability - Patient Service Quality

Dimensions	Cronbach Alpha
Doctors' quality of care	0.8065
Nursing quality of care	0.6895
Operational quality of care	0.6900
Overall service quality	0.6830

Rotated Component Matrix Solutions for Doctor Quality of Care

Doctors' quality of care has ten variable indicators in the data set and three factors were identified through a rotated factor matrix solution (Table 7).

Factor 1: Responsiveness

Answer queries satisfactorily, explain clearly about the treatment and always listen to what patient had to say.

Factor 2: Relationship of Mutual Respect

Always helpful and supportive, treat families and friends nicely, communicate with nurses very well, and communicate with supportive staff very well.

Factor 3: Understanding Customer

Friendly, always ready to clear doubts and always helpful and supportive.

Table 7: Rotated Component Matrix for doctors' Quality of Care

Variables	Factor		
	1	2	3
1	0.225	0.275	0.682
2	0.801	0.024	0.188
3	-0.299	0.686	0.433
4	0.435	0.276	0.102
5	0.731	0.018	0.231
6	0.397	0.444	0.269
7	0.306	0.661	0.108
8	0.15	0.67	-0.149
9	0.101	-0.083	0.67
10	0.533	0.279	-0.18

Note: 1. Rotation Method-Varimax with Kaiser Normalization
2. 1-10 are the variable indicators given for doctor's quality of care in Appendix

Doctor's quality of care depends on responsiveness, relationship of mutual respect, and understanding the customer.

Rotated Component Matrix Solutions for Nursing Quality of Care

Nursing quality of care of care has ten variable indicators in the data set and three factors were identified through a rotated factor matrix solution (Table 8).

Factor 1: Accommodative

Sufficient care, friendly, reply queries very satisfactorily, explain clearly about the treatment, communicate with supportive staff very well, communicate with doctors very well, and available at the time of need.

Factor 2: Responsiveness

Always ready to listen to what patient had to say.

Factor 3: Courtesy

Always helpful and supportive, and treat relatives and friends very nicely.

Table 8 : Rotated Component Matrix for Nursing Quality of Care

Variables	Factor		
	1	2	3
11	0.547	-0.522	0.104
12	0.155	0.234	0.477
13	0.166	0.767	0.043
14	0.579	0.037	0.028
15	0.657	-0.207	0.01
16	-0.054	-0.176	0.855
17	0.499	0.301	0.227
18	0.517	0.282	0.238
19	0.595	0.125	0.167
20	0.657	0.128	-0.112

Note: 1. Rotation Method-Varimax with Kaiser Normalization
2. 11-20 are the variable indicators given for nursing quality of care in Appendix

Nursing quality of care greatly depends on being accommodative, responsiveness, and courtesy.

Rotated Component Matrix Solutions for Operative Quality of care

Operative quality of care has ten variable indicators in the data set and four factors were identified through a rotated factor matrix solution (Table 9).

Factor 1: Pre- and post-operative care

Proper queue management, attractive internal atmosphere, surgery schedule well planned, and daily change of bed sheets/linen

Factor 2: Simplified billing

Simple admission process and satisfactory billing system.

Factor 3: Blood bank service

Good blood bank service and interaction with the frontline staff.

Factor 4: Essential Services and Medical necessity

Laboratory facilities, housekeeping services and canteen facilities

Table 9 : Rotated Component Matrix for Operative Quality of Care

Variables	Factor			
	1	2	3	4
21	0.102	0.868	0.112	0.027
22	0.124	0.868	0.069	0.099
23	0.545	0.107	0.269	-0.045
24	0.737	0.06	-0.138	0.277
25	-0.12	0.195	0.83	0.054
26	0.201	0.011	-0.019	0.773
27	0.631	0.103	-0.016	0.131
28	0.52	0.006	0.429	-0.164
29	0.211	0.005	0.58	0.201
30	-0.016	0.115	0.216	0.762

Note: 1. Rotation Method-Varimax with Kaiser Normalization
2. 21-30 are the variable indicators given for operative quality of care in Appendix

Operative quality of care depends on pre- and post-operative care, simplified billing, blood bank service, and essential services and medical necessity.

Hypotheses Testing - Patient Service Quality

The Pearson Correlation Matrix indicates that there was significant correlation between patient service quality factors and overall service quality (Table 11). The high positive correlation was found for operational quality of care on overall service quality (r=0.329, p<0.001); and nursing quality of care and doctors' quality of care had low positive correlation on overall service quality (r=0.194, p<0.001; r=0.203, p<0.001). There was significant inter-group correlation between doctors' quality of care and operational quality of care, and nursing quality of care and operational quality of care (r=0.428, p<0.001; r=0.425, p<0.001).

Table 11 : Correlation Matrix - Patient Service Quality

		Nursing Quality of Care	Operational Quality of Care	Overall Service Quality
Doctor quality of Care	r	0.35	0.428	0.203
	p	0.001	0.001	0.001
Nursing quality of Care	r	-	0.425	0.194
	p	-	0.001	0.001
Operational Quality of Care	r	-	-	0.329
	p	-	-	0.001

Note: r= Pearson Correlation coefficient; p is level of significance p<0.001

Model Summary- Patient Service Quality

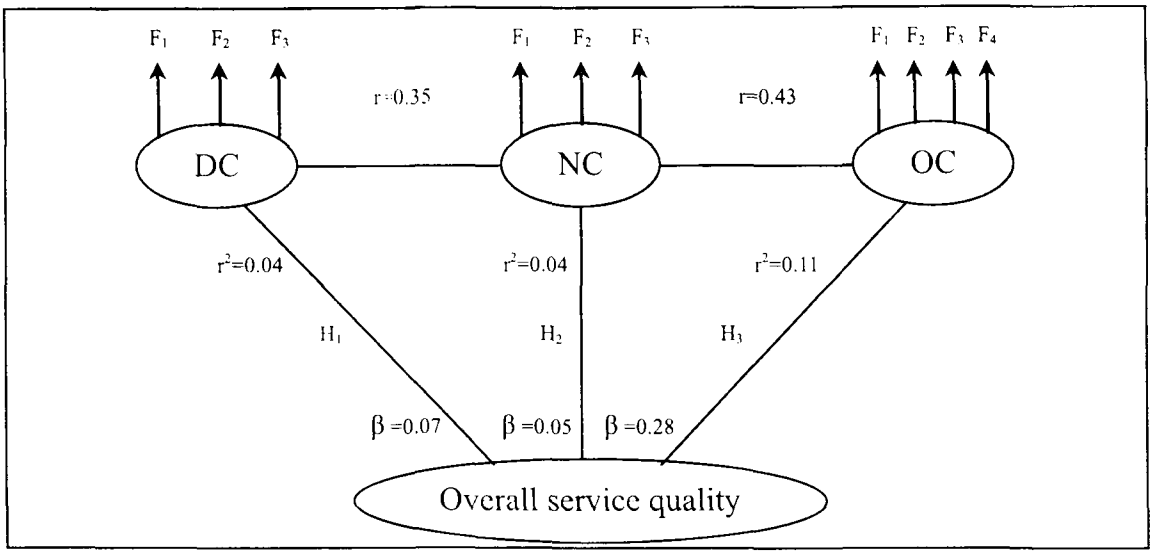
The Patient Service Quality in which operative quality of care yielded 10.8 per cent; doctor quality of care yielded 4.1 per cent; and nursing quality of care yielded 3.8 per cent of explanatory power on Overall Service quality (Figure 2). The operative quality of care had a significantly high strong positive relationship (β=0.279) than doctor quality of care (β=0.065), nursing quality of care (β=0.053) on overall service quality. The hypotheses H_1, H_2 and H_3 were statistically significant (p<0.001). Doctors' quality of care, nursing quality of care, and operational quality of care had a significantly positive influence on overall service quality (Table 12).

Table 12 : Underlying Hypotheses Patient Service Quality on overall service quality

Hypothesis	Relationship	r	β	p	Supported
H_1	Doctor quality of care → overall service quality	0.203	0.065	0	Yes
H_2	Nursing quality of care → overall service quality	0.194	0.053	0	Yes
H_3	Operational quality of care → overall service quality	0.329	0.279	0	Yes

Note: r= Pearson Correlation, β= regression coefficient and p level of significance (P < 0.000)

Figure 2 : Model of Patient Service Quality



Note: DC- Doctor Quality of care, NC- Nursing quality of care, OC- Operational quality of care. β -regression coefficient, r = Pearson Correlation coefficient, Significant at p<0.001, F_n= Factors extracted

Grounded theory was developed for patient service quality. Patient service quality was open coded as, 'Doctors' quality of care,' 'Nursing quality of care' and 'Operative quality of care.' The high positive correlation was found for Operational quality of care on overall service quality (r = 0.329, p<0.001). The nursing quality of care and doctor quality of care had low positive correlation on overall service quality (r = 0.194, p<0.001; r = 0.203, p<0.001). The patient service quality factors significantly influence overall service quality of the healthcare organisations. Doctor's quality of care depends on responsiveness, mutual respect and understanding the customer. Nursing quality of care depends on being accommodative, responsive and courteous. Operative quality of care depends on pre and post operative care, simplified billing, blood bank service, other essential services and medical necessity. The strength of the relationship with overall service quality is as follows: operative quality of care with overall service quality (β=0.279; H_3), doctor quality of care with overall service quality (β=0.065; H_1) and nursing quality of care with overall service quality (β=0.053; H_2). This implies that the operational quality has greater impact on overall service quality in case healthcare organisations.

Conclusion and Future Research Directions

In the beginning, patient satisfaction studies were aimed at identifying the demographic variables associated with patient satisfaction. They analyzed patients' demographic backgrounds—such as age, gender, race, and education—and found correlations between these variables and patient satisfaction. Findings regarding these relationships have been observed, however, in addition, these variables are not modifiable, so healthcare managers could not use the findings to improve service quality. The current generation of studies focused on multidimensional constructs of patient satisfaction (Koichiro, 2009). They identified significant healthcare attributes related to overall patient satisfaction, including accessibility, availability of resources, continuity of care, efficacy of care, finances, humaneness, information giving or gathering, pleasantness of surroundings, and competence of providers. The authors argued that to increase overall patient satisfaction, healthcare providers should focus on improving the attributes of service quality. For example, the efficacy of SERVQUAL instrument is seriously criticised by many researches (Buttle, 1996). Internal quality measures pertain to both the

adequacy of the service delivery process and service characteristics (Donabedian, 1988). Process quality includes appropriate equipment, timely treatment, adequate amount of services, and staying within the norms of industry acceptable practices (Li.L.1997). The quality in a healthcare organisation is three dimensional: patient quality is what patients say they want; professional quality is what professional think patients need (outcome and process); and management quality is the fewest resources to give patients what they want and need, without waste, errors or delay, and within the policy and legal regulation(Ovretveit.J.2000). There is a need to be having systemic approach to service quality in healthcare organisations. Focusing on one aspect of an organisation's performance fails to provide a systemic view of the performance of a healthcare organisation. Monitoring and evaluation gives meaning to the accountability of relationships between clients, policy makers and providers (M. Pilani, 2007). The service quality "whether in reference to a product or service" as "the consumer's evaluative judgment about an entity's overall excellence or superiority in providing desired benefits(Arnauld et.al 2002). Further, there is need to expand the qualitative element to facilitate more in-depth dynamics involved in healthcare organisations (Raduam et al.2004). With the increasing awareness among consumers the medical services will have to focus on customer assessment to improve service quality. The healthcare systems are required to decide whether they want to initiate change or adopt to change that has been externally imposed upon them. Traditionally, healthcare services have been provider-centric with professionals making major decisions about what is good for the patients owing to technical knowledge and expertise. Study suggests it is appropriate to identify and improve the service quality through the patient view of service quality. Furthermore, service quality has to be recognizing as a strategic tool for the attainment of operational efficiency towards the performance of healthcare organizations. We need to listen to the dimensions of which the consumer defines the experience of the healthcare quality. We need to incorporate such dimensions into a comprehensive service quality measurement plan of healthcare organizations.

References

Arnauld.E.J. Price, L.L.Zinkhan, G.M. (2002). *Consumers*, New York, NY: Mc-Graw-Hill Higher education.

Bolton, R.N. & Drew, J.H. (1991). A multistage model of customer's assessment of service quality and value, *Journal of Consumer Research*, Vol.17, No.4 pp.365-384.

Bowers, M.R., Swan, J.E., and Koehler, W.F. (1994). What Attributes Determine Quality and Satisfaction with Health Care Delivery? *Health Care Management Review* Vol.19, No 4, pp. 49-55.

Buttle, F. (1996). SERVQUAL: review, critique, research agenda, *Journal of Marketing*, Vol. 30, No1,pp.8-32.

Carman, J.M. (1990). Consumer perceptions of service quality: An assessment of SERVQUAL dimensions, *Journal of Retailing*, 66(1), 33-55.

Chow-Chua, C. and Goh, M. (2000). Quality improvement in the healthcare industry: Some evidence from Singapore. *International Journal of Health Care Quality Assurance*, Vol.13, No.5, pp.223-229.

Cronbach,L.J.(1951). Coefficient alpha and internal structures, *Psychometrika*,16(3),297-333.

Cronin,J.J. and Taylor,S.A.(1992). Measuring service quality: a reexamination and extensions, *Journal of marketing*, Vol.6, July, pp.55-68.

Cronin,J.J.,Brady,M.K., and Hult,G.T.M.(2000). Assessing the effects of quality, value, and satisfaction on consumer behaviour intentions in service environments, *Journal of retailing*, Vol 76,No.2, pp.193-218.

D.M.Pestonjee,Kajal H.Sharma and Sonal Patel(2005). Image and effectiveness of hospital: An HR analysis, *Journal of health management* Vol.7.No.1, pp 41-90.

Dabholkar,P.A.(1996). Consumer evaluation of new technology-based service operations: an investigation of alternative models, *International Journal of research in marketing* vol.13.No.1, pp.29-51.

Donabedian A (1988). Quality assessment and assurance: Unity of purpose, Diversity of Means, *Inquiry*, Vol.25, No1, pp.173-192.

Donabedian A (1996). Evaluating the quality of medical care, *Milbank Quarterly*, Vol.44, pp.166-206.

Glaser, B.G. (1978). Theoretical Sensitivity: Advances in the Methodology of Grounded Theory. Mill Valley, California: *The Sociology Press.*

Gronroos, C (1984). A service quality model and its marketing implication, *European Journal of marketing*, Vol.18, No.4.pp.36-64.

Jun, Minjoon, Robin P., and George A. Zsidisin(1998). The Identification and Measurement of Quality Dimensions in Health Care: focus group interview results, *Health Care Management Review,* Vol.23, No.4 p. 81.

Koichiro Otani (2009), Patient Satisfaction Focusing on "Excellent", *Journal of Healthcare Management* Vol 54, No2, pp.93-103.

Li.L.(1997).Relationship between Determinants of Hospital Quality management and Service Quality Performance- a Path Analytic model.*Omega*,Vol.25,No.3,pp.535-45.

M. Pilani Natha Raja,S.G.Deshmukh and Subhash Wadhwa(2007). Quality Award Dimensions: a Strategic Instrument for Measuring Health Service Quality, *International Journal of Healthcare Quality Assurance,* Vol.20, No.5, p.363-378.

M.Sadiq Sohail (2003). Service quality in hospitals: more favorable than you might think. *Managing service quality*, Vol.13, No.3, pp.197-206.

Massachusetts Health Quality Partnership (MHQP) (1988). *Results of Hospital Patient Care Survey*. Boston Mass. Massachusetts Health Quality Partners from www.mhqp.org

Mittal, Vikas, and Patrick M. Baldasare(1996). Eliminate the negative: managers should optimize, rather than maximize performance to enhance patient satisfaction, *Journal of Health Care Marketing,* Vol. 16 No. 3.pp.24-31.

Nunnally, J.C. (1978), *Psychometric Theory*. New York: McGraw-Hill.

Ovretveit,J.(2000).Total quality management in European healthcare, *International Journal of healthcare quality assurance*, Vol.13 No.2,pp.74-79.

Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, Vol.49, pp. 41-50.

Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1988). SERVQUAL: a multiple item scale for measuring customer perceptions of service quality, *Journal of Retailing,* Vol.64, pp.12-40.

Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1991). Refinement and reassessment of the SERVQUAL scale, *Journal of Retailing*, Vol. 67, pp.420-50.

Raduam Che Rose,Fegak Uli,Mohad Abdul and Kim LooiNg (2004). Healthcare Organisation Service Quality: a Managerial challenge. *International Journal of Healthcare Quality Assurance*, Vol.17, pp.146-159.

Ramsaran- Fowdar, Rooma, Roshnee (2008). Identifying the healthcare quality attributes, *Journal of health and human services administration*, Vol. 27, pp.428-443.

Rees, Alan M. (1998). Informed consumer choice in Health Care (Medical Consumerism in the Age of Managed Care) (5th ed.) in the *Consumer Health Information* Source Book. Calabretta, N. : Greenwood Publishing. http://www.greenwood.com/books/BookDetail_pf.asp?pf=1&dept_id=1&sku=OXCHSB7

Scott C.Witharow (2006). The eight dimensions of quality, *Healthcare financial management*, December, pp.86-91.

Suresh Chandar G.S.,Chandrasekharan R.,and R.N.Anantharaman(2001). A conceptual model for total quality in service organisations, *Total Quality Management*, Vol.12.No, 3.pp.343-363.

Van der Bij, J.D. Vollmar, T. and Weggeman (1998). Quality systems in healthcare: A situational approach. *International Journal of Health Care Quality Assurance*, Vol 11, No.2, pp.65-70.

Zeithaml, V.A., Parasuraman, A., & Berry, L.L. (1988).Communication and control processes in the delivery of service quality, *Journal of Marketing*, Vol.52, No 2, pp.35-48.

Zeithaml,V.A, Berry,L. and Parasuraman,A. (1996).The behavioural consequences of service quality, *Journal marketing*, Vol.60, No 1, pp.31-46.

About the Authors :

Sunil Cyprian D'Souza is an Assistant Professor at National Institute of Technology, Karnataka. The author can be reached at sunildsouza31@gmail.com

A.H. Sequeira is a Professor at National Institute of Technology, Karnataka. The author can be reached at aloysiushs@gmail.com