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10 August 2010

Online at <https://mpa.ub.uni-muenchen.de/28057/>

MPRA Paper No. 28057, posted 11 Jan 2011 21:34 UTC

## Optimizing the stake holder's perspective on enhancing the service quality in health care

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### Introduction

For centuries, the definition, measurement and improvement of quality in health care has been an issue of primary importance (Roberts, 1987). The concept of quality in health care has developed from a purely technical approach to a multi-faceted issue (Donabedian, 1987) which now tries to satisfy the needs, interests and demands of three principal interest groups (Ovretveit, 1992). These parties have been described as being those who provide the service (i.e. the health care professions), those who manage it, and those who use it (i.e. patients). Each group has its own specific and different interests and opinions on the definition, measurement and improvement of hospital service quality (Senthilkumar.N, 2010). However, health care system still lacks a unified process for assessing the various elements of quality. It is not surprising knowing the complexity of health care services and difficulty of service quality evaluation.

According to McGlynn (1997), patients, service providers and other parties involved in the health care system, define quality differently what leads to the use of different methods of quality evaluation. The most commonly accepted definition of health care quality was proposed by Institute of Medicine in 1999, where quality of care was defined as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (IaM, 1999). This definition discloses well the complexity of the concept of quality and quality evaluation. In designing a coordinated strategy, one must ensure that the complex dynamics of health care delivery, the varying levels at which care might be evaluated, and the different perspectives of the key stakeholders in the system are adequately represented.

To some extent service quality is "in the eye of the beholder"(Senthilkumar. N & Arulraj. A. 2009). That is the reason why expectations associated with different aspects of care are likely to vary among different stakeholders. Considering this, the research objective of this paper is formulated as the following objective in mind:

Optimizing the stake holders' perspective on enhancing service Quality in Health-care.

The aim of this paper is to analyze different perspectives on health care quality in the level of health care organization and to determine quality dimensions, important to patients, health care professionals and managers, so that optimization of different stake holders perspective in enhancing the service quality.

**Research methods:** A rigorous, systemic and comparative analysis of scientific literature.

The next section dealt with the conceptual overview of definitions of health care quality; distinguish between three major perspectives on health care quality at the level of health care institution, from the patient, professional and manager point of view. Further sections will discuss the possible ways of optimizing the different stake holders' perspective in enhancing the service quality in health care.

### Concept of Service Quality in Health-care

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Many efforts have been made trying to develop the thorough and generally applicable definition of service quality in health care. Donabedian (1980) defined health care service quality as "that kind of care which is expected to maximize an inclusive measure of patient welfare, after one has taken account of the balance of expected gains and losses that attend the process of care in all its parts ". In 1984 the American Medical Association defined health care service quality as such care, "which consistently contributes to the improvement or maintenance of quality and/or duration of life" (Blumenthal, 1996). The association identified specific attributes of care that should be examined in determining its quality, including an emphasis on health promotion and disease prevention, timeliness, the informed participation of patients, attention to the specific basis of medicine, and the efficient use of resources. Quality has also been defined as "the abilities to reach the desired objectives using legitimate means ", where the desired objectives implied "the achievable level of health" (Donabedian, 1988). Thus, quality is attained when a physician properly helps the patient to reach an achievable level of health. According to Helminen (2000), this definition emphasizes the professional point of view. The European Committee for standardization in 1994 suggested more generalized definition of quality: "Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs" (Helminen, 2000). Such a definition allows integrating both service providers' and patients' expectations, when talking about health care service quality. On the other hand, Ovretveit (1992) defines quality as "fully meeting the needs of those who need the service most, at the lowest cost to the organization, within limits and directives set by higher authorities and purchasers". The literature concerning service quality dimensions in the health-care industry is replete with studies from the developed world; researchers from de-

veloping countries have been exploring the applicability of the related models and frameworks in their specific context. These different approaches to quality show that there are several different perspectives to quality of health care, at which quality can be analyzed. Different perspectives on and definitions of quality logically call for different methods of quality measurement and management.

### **Patients Perceived Health Care Quality**

"In India and many developing countries, the excessive emphasis on service coverage and inputs in the provision of health services has ignored the needs of the very people for whom these health services exist. Incorporating patient views into quality assessment offers one way of making health services more responsive to people's needs"(Rao et al., 2006) knowing that the public health care centers in India are losing their importance due to poor quality of services (Bhandari, 2006). Healthcare services, being credence in nature, are difficult to evaluate. Hence, understanding the perceptions of customers' gains prominence and significance, in the absence of availability of an objective measurement of medical care. (Padma et.al, 2009)

Most patients do not have the knowledge to evaluate effectively the quality of the diagnostic and Therapeutic intervention process or information necessary for such evaluation is not shared with the patients. Thus, patients base their evaluation of quality on interpersonal and environmental factors, which medical professionals have always regarded as less important (Senthilkumar.N, 2010). Moreover, most patients cannot distinguish between the caring performance and the curing performance of medical care providers (Lam, 1997)

Patients tend to define quality in terms of their preferences and values, and that leads to quality definition emphasizing satisfaction with health care and the results,

such as recovery, mortality and functional status. An interest in the views of patients is not fundamentally inconsistent with physicians' views of quality. When talking about the quality of personal interaction between the service provider and the client, health care professionals have always acknowledged that satisfying patients is essential to providing high quality care. However, at the same time, physicians have often discounted the importance of patients' perspective stating that patients have very limited knowledge of what constitutes technical quality and because of the difficulty of measuring patients' views accurately and reliably.

Both political and scientific developments have fostered the growing emphasis on the importance and legitimacy of patients' perspectives on the quality of care. Using psychometric techniques, researchers have developed better measures of patients' evaluations of the results of care, thus allowing patients' views to be assessed with greater scientific accuracy. The view that consumers should have information and other resources necessary to make judgments about the value of goods and services finally was bound to influence and health care sector. The concept of "patient-centered care" emerged (Blumenthal, 1996).

Patients tend to evaluate health care quality according to the responsiveness to their specific needs. Most patients define quality as efforts of physicians to do everything possible for a patient. They often focus on effectiveness, accessibility, interpersonal relations, continuity and tangibles as the most important dimensions of quality. However, it is important to note that patients do not always fully understand their health service needs and cannot adequately assess technical competence. Health providers must learn about their community's health status and health service needs, educate the community about basic health services, and involve it in de-

fining how care is to be most effectively delivered (Brown et al, 1992).

The most widely known and discussed scale for measuring service quality from the service recipient point of view is SERVQUAL (Parasuraman, Zeithaml, Berry, 1985; 1988). After a subsequent testing, authors identified 5 service quality dimensions: 1) reliability, 2) assurance, 3) tangibles, 4) responsiveness and 5) empathy. SERVQUAL has been also applied to the health care field in numerous researches (Babakus and Mangold, 1992; Brown and Swartz, 1989; Carman, 1990; Walbridge and Delene, 1993; Bowers et al, 1994; Lee et al, 2000; Koerner, 2000; Tucker and Adams, 2001; etc.). However, many researchers found, that SERVQUAL do not encompass all the dimensions of professional service quality and additional dimensions should be added, representing more technical quality aspects (for example, "core medical service" - Haywood-Fanler and Stuart, 1988, Lee et al, 2000; etc.), which are very important in health care.

#### **Health Care Professional's Perspective on Health Care Service Quality**

Healthcare providers' focus is providing the appropriate treatment to their patients. They believe that this actually is the focus of the patients as well (Bopp, 1990). However, as Swartz and Brown (1989) observed, patients' perceptions often differ from those of the physician and physicians may misperceive their patients' evaluations. This causes dissatisfaction on the patient's side and leads the patient to look for an alternative provider and spread negative word of mouth which would affect potential clients (Brown and Swartz, 1989; Swartz and Brown, 1989).

Physicians also tend to balance between efforts to control costs, their own judgment about the best way of treatment and demand to consider the values of patient while making the treatment choices (McGlynn, 1997). Those three things do

not always lead to the same conclusion. Cost control frequently is achieved as third parties make decisions about what services will be covered and what types of providers can offer those services. The involvement of the third parties may diminish the importance of physician judgment and autonomy, which may lead physicians to conclude that the technical quality of health care is suffering.

Traditionally, health care professionals when talking about quality focused on the technical nature of health care events. The focus has been on the training and updated skills of the physicians and the nature of the actual medical outcome. One of the most widely used conceptual framework for quality of health care was proposed by Donabedian (1980) and is known as the "structure-process-outcome" model. "Structure" assesses the quality of health care through a study of the settings in which care takes place. "Process" reflects the interaction between the patient and health care professional, and depends on technical and interpersonal excellence. "Outcome" considers whether a change in a patient's current and future status can be attributed to health care received. In this model quality was viewed as technical in nature and assessed from the physicians' point of view. According to Lee et al. (2000), considering the potentially fatal and irrevocable consequences of malpractice in health care, in contrast to other service industries, it would be logical and desirable for physicians to hold such an attitude. Physicians define outcomes in terms of the biological status of the patient (for example, blood pressure, lung functioning, mortality), because these are the outcomes they can control. The broader definition of the results of medical care encompasses physical, emotional and social functioning. Efforts to use outcomes as the sole metric for health care quality evaluation ignores the fact that medical interventions (the process of care) affect the outcomes. And so, we cannot rely only on

health outcomes when evaluating the health care quality.

From the provider's perspective, quality care implies that he or she has the skills, resources, and conditions necessary to improve the health status of the patient, according to current technical standards and available resources. The provider's commitment and motivation depend on the ability to carry out his or her duties in an ideal or optimal way. Providers tend to focus on technical competence, effectiveness, and safety. Just as the health care system must respond to the patients' perspectives and demands, it must also respond to the needs and requirements of the health care provider. In this sense, health care providers can be thought of as the health care system's "internal clients". They need and expect effective and efficient technical, administrative, and support services in providing high-quality care (Brown et al., 1992).

### **Manager's Perspective on Health Care Quality**

In today's highly competitive healthcare environment, hospital administrators, like all other public or private organizations and institutions, are confronted with the necessity of measuring both their financial (costs, revenues, profitability) and non-financial performance (quality of their services), in order to improve their functions and increase their competitiveness. Performance measurement is not an easy task in health services, where a wide range of stakeholders is involved.

Managers of health care organization are rarely involved in delivering patient care, although the quality of patient care is central to everything they do. Focusing on the various dimensions of quality can help to set administrative priorities. Health care managers must provide for the needs and demands of both providers and patients. Also, they must be responsible stewards of the resources entrusted to them by the government, private entities, and the

community. Health care managers must consider the needs of multiple clients in addressing questions about resource allocation, fee schedules, staffing patterns, and management practices. According to Brown et al. (1992) managers tend to feel that access, effectiveness, technical competence, and efficiency are the most important dimensions of quality.

Jun et al. (1998) summarized the findings from the focus groups (consisted of physicians, managers and patients) as illustration of population similarities and differences with respect of health care quality. The authors found that patient groups displayed more similarities with the managers group and those groups focused heavily on functional quality attributes, while physician group focused on technical quality attributes. Responsiveness was a strong concern for patients. Communication was a key dimension of health care quality in all three groups. There was a sharp contrast between definitions of quality used by physicians and managers. Physicians see their role as that of performing according to the norms of the profession, while managers' focus on accomplishing financial and other mission-related goals of the institution.

Optimizing the different perspectives on health care service quality

The health care service quality evaluation must find a way, which encompasses expectations and needs of every party involved. With reference to McGlynn (1997), a starting point is to make explicit what patients, health care professionals and managers value and regard as an essential mission of health care. Areas of agreement among these perspectives must define the central focus for quality measurement. Areas in which an objective is not shared by all groups but is not necessarily in conflict with other expectations should be incorporated into the quality measurement system next. Areas of direct conflict require solutions outside the quality assessment arena.

Historically the literature suggests that physicians in general put more emphasis on medical outcomes than on either patient perceptions of process or structural determinants of health care quality. Patients, it is believed, determine health care quality mainly from the functional determinants, as they are less empowered to judge technical quality. Administrators are driven by financial considerations to emphasize patient satisfaction as a measure of quality because patient satisfaction is believed to be central to effective marketing of a health care organization. It is now possible to combine patient perceptions with quality measures derived from other sources, such as clinical or administrative databases or medical record review, to achieve a more comprehensive and useful measure of overall quality (Bowers and Kiefe, 2002).

Taking into consideration those quality aspects that are important to every group discussed above, we can identify some essential health care quality dimensions, which should be included into the comprehensive quality evaluation process. The analysis of scientific literature revealed that the most important health care quality dimension for patients (health care providers had also already acknowledged its importance) might be generally called as "interpersonal relations" (this term has its theoretical justification –Brown et al., 1992). The dimension of interpersonal relations refers to the interaction between providers and patients, managers and health care providers, health institution and the community. Good interpersonal relations establish trust and credibility through demonstration of respect, confidentiality, courtesy, responsiveness and empathy. Effective listening and communication are also important. Inadequate interpersonal relations can reduce the effectiveness of a technically competent health service. Other terms, like "responsiveness" - willingness or readiness of employees to provide service (Parasuraman et al., 1985; 1988) or "patient centered-

ness" - the degree to which a system actually functions by placing the patient /user at the center of its delivery of healthcare and is often assessed in terms of patient's experience of their health care (Kelley and Hurst, 2006) are used to describe this dimension. Dimension of "interpersonal relations" includes all the aspects of functional quality that are important to patients and usually are evaluated employing the SERVQUAL scale, except of the dimension "tangibles".

"Tangibles" (Parasuraman et al., 1985; 1988) or "amenities" (Brown et al., 1992) refer to the features of health services that do not directly relate to clinical effectiveness but may enhance the patient's satisfaction and willingness to return to the facility for subsequent health care needs. Amenities are also important because they may affect the patient's expectations about and confidence in other aspects of the service. Tangibles relate to the physical appearance of facilities, personnel and materials, as well as to comfort, cleanliness and privacy. This conforms to the element "structure" in Donabedian's conceptualization of health care quality.

"Technical competence" refers to the skills, knowledge, capability and actual performance of health care providers, managers and support staff. Technical competence relates to how well providers execute practice guidelines and standards in terms of dependability, accuracy, reliability and consistency (Brown et al., 1992). For health care providers it includes clinical skills related to preventive care, diagnosis, treatment and health counseling. Competence in health management requires skills in supervision, training and problem solving. The requisite skills of support staff depend on individual job descriptions. "Competence" is very important dimension for health care professionals and represents the degree, to which health providers has training and abilities to diagnose, treat and communicate with patients. There are many potential aspects of competence in

this context, including technical competence as well as cultural competence (Kelley and Hurst, 2006).

"Accessibility" is the ease with which health services are reached. Access can be physical, financial or psychological, and requires that health services are a priori available (Kelley and Hurst, 2006). Organizational access refers to the extent to which services are conveniently organized for clients, and encompasses issues as clinic hours and appointment systems, waiting time and the mode of service delivery (Brown et al., 1992).

The dimension of "safety" means the degree to which health care processes avoid, prevent, and ameliorate adverse outcomes or injuries that stem from the processes of health care itself (Kelley and Hurst, 2006). Safety means minimizing the risks of injury, infection, harmful side effects or other dangers related to service delivery. Safety involves the provider as well as the patient (Brown et al., 1992).

A key dimension is "effectiveness" which is the degree of achieving desirable outcomes, given the correct provision of evidence-based health care services to all who could benefit, but not to those who would not benefit (Arab, et al. 2003; WHO, 2000). Donabedian stresses that effectiveness is the extent to which attainable improvements in health are, in fact, attained (Donabedian, 2003; Donabedian 1980). Juran and other authors cite effectiveness as the degree to which processes result in desired outcomes, free from error (Juran and Godfrey, 2000). Effectiveness is an important dimension of quality at the central level, where norms and specifications are defined. Effectiveness issues should also be considered at the local level, where managers decide how to carry out norms and how to adapt them to local conditions.

"Efficiency" of health services is an important dimension of quality because it affects service affordability and because health

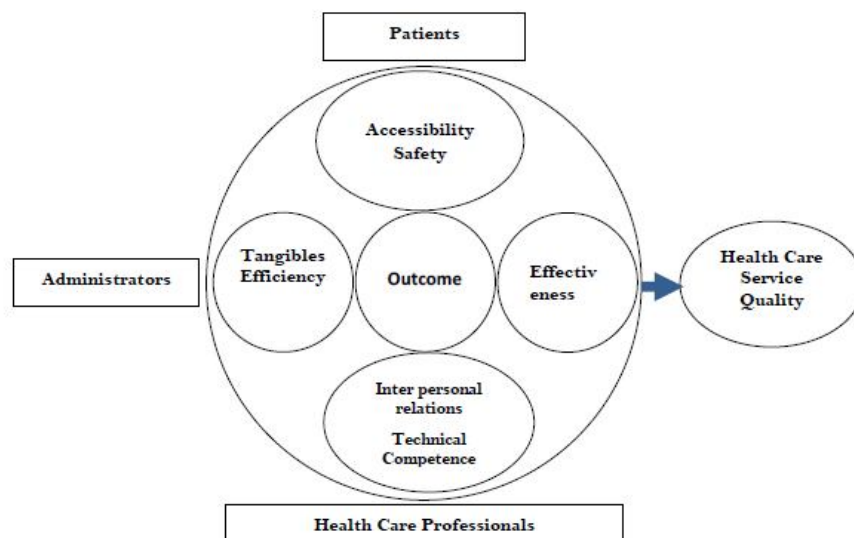
care resources are usually limited. Efficient services provide optimal rather than maximum care to patient and community; they provide the greatest benefit within the resources available (Brown et al., 1992). "Efficiency" is the system's optimal use of available resources to yield maximum benefits or results. It speaks to a system's ability to function at lower costs without diminishing attainable and desirable results (Donabedian, 2003).

"Outcomes" is the essential element in health care service quality. Usually this dimension was treated as exclusively health care provider's prerogative when evaluating the quality of health care services. But now is obvious that outcomes in part can be also evaluated by patients. Outcomes can be defined as the change in a patient's health status that may be attributed to the medical care provided (Turner and Pol, 1995; Ward et al., 2005). As this dimension represents the technical quality, such terms like "core medical service" (Haywood-Farmer and Stuart, 1988; Lee et al., 2000), "patient outcomes" and "patient satisfaction" (Bowers et al., 1994; Lun et al., 1998) might be used as synonymous. Considering the exceptional importance of this dimension, outcomes should be evaluated by all groups in health care institution: physicians evaluate outcomes according to clinical benchmarks, managers - according to financial, mission related goals of institution, and patients - according to their perceptions of cure. The crux of the problem lies with the administrators in striking an optimum balance between the various quality dimensions as listed below and as shown in the *figure 1*:

1) "Interpersonal relations" - refers to the interaction between service providers and recipients through establishing trust, credibility, demonstration of respect, confi-

dentiality, courtesy, responsiveness, empathy and effective communication; 2) "Tangibles" refers to the features of health services that do not directly relate to clinical effectiveness but may enhance the patient's satisfaction and willingness to return to the facility for subsequent health care needs. Tangibles relate to the physical appearance of facilities, personnel and materials, as well as to comfort, cleanliness and privacy; 3) "Technical competence" refers to the skills, knowledge, capability and actual performance of health care providers, managers and support staff, i.e., the "must be" features of health care service; 4) "Accessibility" - the ease with which health services are reached, i.e., clinic hours, waiting time, etc.; 5) "Safety" - minimizing the risks of injury, infection, harmful side effects or other dangers related to service delivery. Safety involves the provider as well as the patient; 6) "Effectiveness" is the extent to which attainable improvements in health are, in fact, attained; 7) "Efficiency" is the system's optimal use of available resources to yield maximum results; 8) "Outcomes" can be defined as the change in a patient's health status that may be attributed to the medical care provided. "Outcomes" is the essential element in health care service quality, but for a long time it was treated as exclusively health care providers' prerogative when evaluating the quality of health care. The truth is that "outcomes" can be evaluated by patients as well, for at least in some part. That's why this dimension should be evaluated by all three identified groups (patients, physicians and managers) in the health care institution. Last the evaluation of every group might be reasoned on different aspects, according to the competence required and the point of reference.





## Conclusion

The concept of quality has many dimensions, some of which are difficult to quantify, but no less essential to its definition. We should incorporate the components listed above into a more comprehensive way of service quality measurement and management. As functional aspects of quality are especially important to patients, technical aspects are essential for health

care professionals, and other aspects, such as effectiveness, efficiency are of primary importance to managers, all of them should be included into the process of health care quality evaluation. Thus this paper's objective of identifying the ways and means to optimize the stake holders' perspective in enhancing the service quality in health care.

## References

- Arah, OA. Conceptual frameworks for health systems performance: a quest for effectiveness, quality and improvement | O.A. Arab, NS Kazinga, DMJ Delnoij, AHA Asbroek, T Custers | International Journal for Quality in Health Care, 2003, Vol.15, p. 377-398.
- Babakus, E. Adapting the SERVQUAL to hospital services: and empirical investigation | E. Babakus, W.O. Mangold | Health Services Research, 1992, Vol.26, p.767-786
- BhandariLaveesh (2006), "Social infrastructure: urban health and education", available at: [www.3inetwork.org/reports/IIR2006/Social\\_Infra.pdf](http://www.3inetwork.org/reports/IIR2006/Social_Infra.pdf) (accessed on 11 September 2010).
- Blumenthal, D. Part I: Quality of Care - What is it? | The New England Journal of medicine, 1996, Vo1.33S, No 12, p.891-894.
- Bopp KD (1990). How patients evaluate the quality of ambulatory medical encounters: A marketing perspective. J. Health Care Mark., 10(1): 6-15.
- Bowers, M.R. What attributes determine quality and satisfaction with health care delivery? | M.R.Bowers, J.E. Swan, W.F. Koehler | Health Care Management Review, 1994, Vol. 19, No 4, p.49-55.
- Bowers, M.R., Measuring Health Care Quality: Comparing and Contrasting the Medical and the Marketing Approaches | M.R. Bowers, C.1.K.iefe | American Journal of Medical Quality, 2002, VoU7, No 4, p.136-144.
- Brown SW, Swartz TA (1989). A gap analysis of professional service quality. J. Mark., 53: 92-98.
- Brown, L.D., Quality Assurance of Health Care in Developing Countries | L.D. Brown, L.M. Franco, N. Rafeh, T. Hatzell | Quality Assurance Methodology Refinement Series, 1992. The Quality Assurance Project.

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- Brown, S.W. A gap analysis of professional service quality I S.W. Brown, T.A. Swartz II *Journal of Marketing*, 1989, Vol.S3, No 4, p.92-98.
- Carman, J.M. Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions II *Journal of Retailing*, 1990, Vol.66, No 1, p.33-SS.
- Donabedian, A. (1980), *Explorations in Quality Assessment and Monitoring, Volume I: The Definition of Quality and Approaches to Its Assessment*, Health Administration Press, Ann Arbor, MI.
- Donabedian, A. *An Introduction to Quality Assurance in Health Care I Oxford: Oxford University Press, 2003.*
- Donabedian, A. *Explorations in Quality Assessment and Monitoring I Ann Arbor, MI: Health Administration Press, 1987.*
- Donabedian, A. Quality assessment and assurance: unity of purpose, diversity of means II *Inquiry*, 1988, Spring, p.175-192.
- Haywood-Farmer, J. Measuring the quality of professional services I J. Haywood-Farmer, F.1. Stuart II *The Management of Service Operations. Proceedings of the 3<sup>rd</sup> Annual International Conference of the UK Operations Management Association*, 1988.
- Helminen, S.E. *Quality of care provided for young adults and adolescents in the Finnish public oral health service I Academic dissertation, Helsinki, 2000*
- Jun, M. The Identification and Measurement of Quality Dimensions in Health Care: focus group interview results I M.Jun, R.Peterson, G.A.Zsidisin II *Health Care Management Review*, 1998, Vol.23, No 4, p.81.
- Juran, J. *Juran's Quality Handbook I J.Juran, B. Godfrey I New York: McGraw Hill, 2000.*
- Kelley, E. Health Care Quality Indicators Project. Conceptual Framework Paper I E.Kelley, J.Hurst II *OECD Health Working Papers No 23, 2006, March.*
- Koerner, M.M. The conceptual domain of service quality for inpatient nursing services II *Journal of Business Research*, 2000, Vo1.48, p.267-283.
- Lam (1997). SERVQUAL: A tool for measuring patient's opinions of hospital service quality in Hong Kong. *Total Quality. Management* 8(4):145-52.
- Lee, H. Methods of measuring Health-Care service quality I H. Lee, M.L. Delene, M.A. Bunda, Ch. Kim II *Journal of Business Research*, 2000, Vo1.48, p.233-246.
- McGlynn, E.A. Six Challenges in Measuring the Quality of Health Care II *Health Affairs*, 1997, Vo1.16, No 3, p.7-21.
- Ovretveit, . *Health Service Quality I Oxford: Blackwell Scientific, 1992.* O'Connor, S.J. The great gap I S.J. O'Connor, R.M. Shewchuk, L.W. Carney II *Journal of Health Care Marketing*, 1994, Vo1.14, No 2, p.32-39.
- Ovretveit, J. (1992), *Health Service Quality*, Blackwell Scientific Press, Oxford, in Selbman, H.K. and Garaedts, M. (1995) "Who should define the Quality of Health Care? The health care provider, the patient, the institutions financing health care, or politicians interested in health care?" unpublished manuscript.
- Panchapakesan Padma, ChandrasekharanRajendran and L. PrakashSai (2009)," A Conceptual framework of service quality in healthcare Perspectives of Indian patients and their attendants" *Benchmarking*, Vol. 16 No. 2, 2009 pp. 157-191
- Parasuraman, A. A conceptual model for service quality and its implications for future research I A. Parasuraman, V.A. Zeithaml, L.L. Berry, II *Journal of Marketing*, 1985, Vo1.49, pA1-50.
- Parasuraman, A. SERVQUAL: a multi-item scale for measuring consumer perceptions of the service quality I A. Parasuraman, V.A. Zeithaml, L.L. Berry II *Journal of Retailing*, 1988, Vol.64, No 1, p.12-40.
- Rao, K.D., Peters, D.H. and Banteen-Roche, K. (2006), "Towards Patient-centred health services in India – a scale to measure patients perception of quality", *International Journal for Quality in Health Care*, Vol. 18 No. 6, pp. 414-21.
- Roberts, J.S. (1987), "Reviewing the quality of care: priorities for improvement", *Health Care Financing Review – Annual Supplement*, pp. 69-74.
- Senthilkumar.N&Arulraj.A," *Methodology for Service Quality Measurement of Higher Education in India*", *Serials*,2009
- Senthilkumar.N, "Service Quality Management in Health Care in India" (2010). Available at SSRN: <http://ssrn.com/abstract=1639862> (accessed on 01 October 2010)
- Swartz T, Brown T (1989). Consumer and provider expectations and experiences in evaluating professional service quality. *J. Acad. Mark. Sci.*, 17(2): 189-95.
- Tucker, J.L. Incorporating patients' assessments of satisfaction and quality: an integrative model of patients' evaluations of their care I J.L.Tucker, Sh.R. Adams II *Managing Service Quality*, 2001, Vo1.II, No 4, p.272-286.
- Turner, P.D. Beyond Patient Satisfaction I P.D. Turner, L.G. Pol II *Journal of Health Care Marketing*, 1995, Vo1.15, No.3, pAS-53.
- Walbridge, S.W. Measuring Physician Altitudes of Service Quality I S.W.Walbridge, L.M. Delene II *Journal of Health Care Marketing*, 1993, Winter93, p.6-15.

Ward, K.F. Improving outpatient Health Care Quality: Understanding the Quality Dimensions I K.F. Ward, E. Rolland, R.A. Patterson II Health Care Management Review, 2005, Vo1.30, No 4, p.361-371.  
World Health Report 2000 Health systems: improving performance. Availableat:  
<http://www.who.int/whr/2000/en/index.html>.