

# Factors Influencing the Patients in Attaining Satisfaction by the Services Provided in the Hospital

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## Abstract

States that hasty changes in the environment have exerted significant pressures on hospitals to slot in patient satisfaction in their strategic stance and quest for market share and long-term viability. This study proposes and tests a five factor model that explains considerable variation in customer satisfaction with hospitals. These factors include communication with patients, competence of the staff, their behaviour, quality of the facilities, and perceived costs; they also represent strategic concepts that managers can address in their bid to remain competitive. A probability sample was selected and a multiple regression model was used to test the hypotheses. The results indicate that all five variables were significant in the model and explained 62 per cent of the variation in the dependent variable. Executive implications of the proposed model are discussed.

## Keywords

Patient Satisfaction, Perceived Quality of Services, Health Care, Communication, Competence and Behavior of Staff

## I. Introduction

One of the fastest growing industries in the service sector is the health-care industry. The rapid growth of this sector has been accompanied by dramatic changes in the environment, challenging health care managers and administrators to find alternative ways of remaining viable. These forces of change, that include competitive pressures, alternate health care delivery mechanisms, changing cost structures, monitoring by public and private groups, increased information availability, and a markedly better-informed pressures on health-care providers to reassess their strategies. Many providers, with help from the research community, are beginning to realize that providing customer satisfaction is a key element of strategy and a crucial determinant of long-term viability and success. Thus, Donabedian (1988) suggests that "patient satisfaction may be considered to be one of the desired outcomes of care ..." information about patient satisfaction should be as indispensable to assessments of quality as to the design and management of health care systems". Customer satisfaction represents a profitable

competitive strategy variable because studies have shown that the public is inclined to pay more for care from quality institutions which are better disposed to satisfy customers' needs (Boscarino, 1992; Hays, 1987). Its value as a competitive tool also derives from the fact that hospitals with better images have been able to translate these into increased utilization and market share (Boscarino, 1992; Gregory, 1986). Delivering customer satisfaction is also imperative because today's buyers of health care services are better educated and more aware than in the past. These buyers care-fully study and monitor the options available to them; they are, therefore, more discerning buyers, knowing exactly what they need. These changes are being driven by the abundance of information that is available to them from public and private sources. According to Kurz and Wolinsky (1985) and Heistand (1986), customers are relying less on doctors to choose the "right"

hospital. Reflecting on the importance of the patient's point of view, Petersen (1988) suggests that: "It really does not matter if the patient is right or wrong.

What counts is how the patient felt even though the caregiver's perception of reality may be quite different." Hospitals that fail to understand the importance of delivering customer satisfaction may be inviting possible extinction. Research studies on customer satisfaction are numerous and growing. Many of these have focused on the health-care sector (Davies and Ware, 1988; Peyrot et al., 1993). Different paradigms have also been used to define and operationalize patient satisfaction. The SERVQUAL framework (Parasuraman et al., (1985; 1991), which has played an important role in the service environment, has also found applications in research on satisfaction with hospital services (Reidenbach and Sandifer Smallwood, 1990; Taylor and Cronin, (1994). While this framework has been used in a variety of service encounters, it has been shown to have some limitations. For example, Brown et al. (1993) have suggested measurement problems in the use of difference scores. Cronin and Taylor (1992) have suggested that service quality can be predicted adequately by using performance measures alone. In addition, Carman (1990) has suggested that in specific service situations, it may be necessary to delete or modify some of the SERVQUAL dimensions or even introduce new ones. Studies by Babakus and Boller (1992) and Reidenbach and Sandifer-Smallwood (1990) have also shown several shortcomings of the original scale. Consequently, this study diverges from the theoretical structure suggested by the SERVQUAL-based studies and examines the factors deemed important by patients that influence their satisfaction with hospitals.

Consistent with the literature, patient satisfaction is defined as a customer's overall evaluation of his/her experiences with hospital services (Johnson and Fornell, 1991; Johnson et al., 1995). First, the factors influencing patient satisfaction are presented as propositions and their linkages explained.

The research method is explained next, followed by an explanation of the analytical procedures, the results, and the conclusions.

## II. Propositions

Research on customer satisfaction in the health-care environment has generated a diversity of variables to represent and explain this important construct. For example, one study using single-item measures that are poor in psychometric properties listed 49 "base questions" that were correlated with satisfaction scores (Press and Ganey, 1989). Likewise, the Hospital Corporation of America uses a 68-item "patient judgement system" (Nelson et al., 1989). Other studies were based on frameworks such as SERVQUAL that are basically confined to a defined structure (Reidenbach and Sandifer-Smallwood, 1990; Taylor and Cronin, 1994). Still others have examined the effects of community, socio-economic status, race, location, and related factors to explain customer satisfaction (Boscarino, 1992). Then there are studies that have used attribution theory (who influenced hospital selection) to explain patient satisfaction (Woodside et al., 1987).

This study, while open to insights from the literature, was guided

by two concerns - what is important to customers in explaining their satisfaction and which of the variety of variables are managerially relevant in so far as actionability. Five important constructs emerged to bridge these concerns. Their links to satisfaction are first proposed. Communication with patients can greatly affect the healing process. If a patient feels alienated, uninformed, or uncertain about health outcomes he/she may take longer to heal. Clearly, communication is vital to delivering service satisfactions in the hospital setting. When questions that concern patients can be readily discussed and when patients are consulted regarding the type of care they will be receiving, it can alleviate their feelings of uncertainty. Moreover, when the nature of the treatment is clearly explained, patients' awareness is heightened and they are sensitized to what to expect. Such communication between patients and service providers can increase patients' satisfaction with the quality of services and hospital care received. It is proposed that:

**P1: The better the quality of communication perceived by the patient, the greater will be their level of satisfaction.**

Studies have shown that large hospitals with tertiary care services and teaching facilities are, in general, evaluated better than their counterparts (Boscarino, 1992). These characteristics of hospitals reflect to some degree the level of competent services they can provide to patients. In another study, Wilson and McNamara (1982) simulated doctor-patient encounters in which physicians' courtesy and competence were varied. They concluded that good bedside manners of physicians did not mask their poor technical competence. Hall et al.'s (1988) meta-analysis of 41 independent studies also showed that physician task competence strongly influenced actual patient decisions and assessment about quality. Apparently, a basic expectation that patients have when they choose hospital care is that of competent services. When patients perceive that the service providers are competent, it can help overcome their uncertainties and consequent feelings of vulnerability. Thus, it is proposed that:

**P2: The greater the perceived competence of the service provider, the greater will be the level of patient satisfaction.**

Physical evidence that the hospital will provide satisfactory services can also be important to patient satisfaction judgements. Thus, overall cleanliness of the facilities, the availability of modern equipment, and a general feeling that the facilities are in good repair can enhance patient satisfaction. In the SERVQUAL literature, this factor is called tangibles. It is proposed that:

**P3: The better the perceived quality of the facilities, the greater will be the level of patient satisfaction.**

When relating to customers, the general demeanour of the staff in various service settings can have a significant impact on customer satisfaction (Andaleeb and Simmonds, 1997; Grewal and Sharma, 1991). In the hospital environment, past studies have also shown that the manner in which the staff interact with patients and the staff's sensitivity to patients' personal experience are most important to customer satisfaction (Press and Ganey, 1989). Thus, it is proposed that:

**P4: The more positive the demeanour of the hospital staff, the greater will be the level of patient satisfaction.**

Patient satisfaction should also be influenced by perceived

treatment costs. Even with insurance coverage, patients may perceive some costs to be excessive. In fact, with insurance companies challenging what they feel are unnecessary claims, costs, and operating procedures (Schlossberg, 1990), and employers requiring larger employee contributions to offset rising insurance premiums (Wong, 1990), health-care consumers may have become much more sensitive to the price issue. Wong also predicts that consumers will shop for the best value. Consequently, if hospital costs exceed patients' expectations, it will influence patients' satisfaction with hospital services. Thus:

**P5: The greater the perception that hospital costs are excessive, the lower will be the level of patient satisfaction.**

### III. Research Method

#### A. Research Design

Secondary sources were first explored to obtain insights into the literature on satisfaction with hospitals. The next stage involved gathering information directly from actual and potential users of hospitals. This was accomplished in two steps.

1. This involved exploratory in-depth research. Interviews were conducted with a small but representative sample of conveniently chosen hospital users with different backgrounds.

Participants responded to open-ended questions. The in-depth nature of the interviews allowed identification of the factors explaining patients' satisfaction with hospital services.

2. This involved designing and pretesting a questionnaire which was administered to 30 respondents, again chosen conveniently from a cross-section of the population. The pretest was instrumental in assessing the strengths and weaknesses of the questionnaire and suggested the need to make minor modifications in the instrument.

#### B. Measurement

The questionnaire included perceptual measures that were rated on a five-point Likert scale. Each scale item was anchored at the numeral 1; 1 = "strongly disagree"; 5 = "strongly agree". This format has been recommended for health-care surveys (Elbeck, 1987; Steiber, 1989). Multiple items were used to assess their measurement properties (reliability and validity). Consistent with the literature, the scale items selected for the dependent variable were direct measures of people's overall satisfaction with services received from area hospitals.

#### C. Sampling

The sample was drawn from a large city and its suburb in Udaipur. Four hospitals -two with approximately 450 beds and two with about 100 beds - operate in this city. The area has also been frequently used as a test market site, suggesting the representative nature of the population surveyed. The sampled population included adults (18 years and older). Questionnaires were delivered personally to respondents' homes in envelopes containing a cover letter that briefly explained the purpose of the study. Respondents' anonymity was ensured by asking them not to identify themselves in any manner. They were also asked to return the questionnaires by mail in postage-paid envelopes.

A multi-stage probability sampling approach was selected. In the first stage, streets on a map of the chosen city were randomly selected. Then the number of streets that intersected the selected streets was determined. In the second stage, one intersection was

randomly chosen for each street selected in the first stage (e.g. if the chosen street was intersected by ten streets, each of these intersections was assigned a number between one and ten, and a street was randomly chosen). Intersections of non-residential areas were eliminated. The direction in which to proceed from the intersection and the side of the street (left or right) on which questionnaires would be distributed were selected by flipping a coin at the intersection to randomize the delivery of questionnaires to the households.

Approximately ten questionnaires were distributed for each randomly selected intersection using a systematic sampling procedure.

The households receiving the questionnaires were determined by estimating the total number of houses on the street and dividing by ten. The first house to receive the survey was randomly chosen. The process was repeated for each intersection. Using this stage-wise sampling procedure assured that every household in the selected city was likely to receive the survey. A total of 390 questionnaires were distributed, of which 131 were completed and returned, resulting in a response rate of 33 per cent. One returned questionnaire was eliminated from the analysis due to excessive missing data, leaving a total of 130 questionnaires for data analysis.

The sample demographics indicated that a diverse cross-section of the population responded. Gender was represented by 38 per cent males and 62 per cent females. The age of the respondents may have been slightly skewed in favour of the older population (18-25, 3 per cent; 25-34, 24 per cent; 35-44, 19 per cent; 45-54, 22 per cent; 55-64, 12 per cent; 65 and over, 19 per cent). However, since this group is more likely to need hospital services, their satisfaction with hospital services can provide many insights. In the education category, 6 per cent of the respondents had less than a high school degree, 57 per cent had a high school degree, 24 per cent were college graduates, and 13 per cent went to graduate schools. Finally, in the income category, 37 per cent had a household income of less than 24,999; 37 per cent had incomes in the range of 25,000-49,999; and 26 per cent had incomes over 50,000.

**IV. Results**

The results of multiple regression analysis are presented in Table I. The full model was significant, as indicated by the overall F statistic ( $p < 0.001$ ) and explained 62 per cent of the variation in the dependent variable as indicated by the adjusted R2 value. All five independent variables were significant in explaining patient satisfaction with hospital services. An examination of the parameter estimates (especially the standardized beta values) suggests that perceived competence of the hospital staff and their demeanour have the greatest impact on customer satisfaction.

These variables are followed closely in importance by perceived hospital costs. The quality of communication and the general condition of the facilities were also significant but less important in explaining customer satisfaction with hospital services.

Table 1: Regression Results (Dependant Variable: Satisfaction)

Variable	b	se	B	p <
Communication	0.186	0.08	0.17	0.05
Cost	-0.207	0.05	-0.25	0.001
Facility	0.159	0.07	0.15	0.01
Competence	0.350	0.10	0.26	0.001
Demeanour	0.300	0.09	0.26	0.001
Constant	0.421	0.457		

Notes:  $R^2 = 0.63$ ; adj  $R^2 = 0.62$ ;  $F_{5, 120} 41.11$ ,  $p < 0.001$

**V. Conclusion**

There is growing consensus that assessment of the quality of hospital care should be based, in part, on patients' perceptions of overall care and patient satisfaction (Carmichael, 1996; Davies and Ware, 1988). It has also been suggested that the satisfaction scores can be used in performance appraisal and compensation of both management and staff in service-oriented organizations (Parasuraman et al., 1988). The health-care industry seems to be taking note. According to a nationwide study of medical directors of health maintenance organizations in 1995, 36 per cent of the health plans have begun to respond. In particular, obtaining physician-level satisfaction measures have become standard practice among managed care organizations (Carmichael, 1996). While assessing the level of customer satisfaction is important, it is equally important for hospital management to work with the factors that explain customer satisfaction. It is even more important for them to work with a few crucial determinants, not all explanatory variables, so that limited resources are deployed in the most effective manner. In this regard, the proposed model deserves careful consideration and timely attention.

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