

A Study of Patient Satisfaction in Outdoor Services of Private Health Care Facilities

R D Sharma and Hardeep Chahal

The concept of patient satisfaction has encouraged the adoption of marketing culture in service sector including health care services. This article reports the findings of a survey aimed at understanding the extent of patient satisfaction with diagnostic services. It has constructed a special instrument for measuring patient satisfaction. The instrument captures the behaviour of doctors and medical assistants, quality of administration, and atmospherics. The role of demographic characteristics like gender, occupation, education, and income is also considered. Based on the findings, the article suggests strategic actions for meeting the needs of the patients of private health care sector more effectively.

R D Sharma is Professor and Dean at the Faculty of Commerce, University of Jammu, Jammu and Hardeep Chahal is Visiting Fellow at the Gandhi Memorial International School, Ancol Barat, Jakarta, Indonesia.

Background

The strategy for patient satisfaction in health care service requires effective marketing plans, policies, and practices to genuinely meet the needs of different strata of population (MacAlexander *et al.* 1993). This concept drew the attention of the service providers in the early 70s and the health care providers in advanced countries became conscious of satisfying patients (Cooper *et al.* 1979; Kotler and Zaltman, 1970; Zaltman and Vertinsky, 1971; Woodside *et al.* 1989 and Hexner *et al.* 1985). The major reasons that have necessitated a shift towards marketing approach are intense competition, more patient awareness, increased purchasing power of patients, and availability of specialists (Yadav, 1993). The progress of service unit depends on the patient satisfaction and service quality in all developing and developed countries (Cronin and Taylor, 1992). Consequently, the measurement of patient satisfaction and service quality has become very important to the providers (Brown and Swartz, 1989; Parasuraman *et al.* 1988 and Thompson *et al.* 1985). Because of the inherent presence of intangible features, it is very difficult to have a standardized and scientific measurement tool for services. This has been eloquently identified by a number of authors like Brown and Swartz (1989), Caraman (1990), Crosby (1979), and Parasuraman *et al.* (1991). Thus, the absence of suitable measures for services has cogitated marketing efforts as a drain on resources instead of revenue generating function of an organization (Louden, 1988). But still, a number of studies are being conducted on the basis of constructs developed by the researchers by using their own experience and interactions with the concerned personal and subject experts. The survey scale like SERVQUAL (Parasuraman *et al.* 1985, 1991; Caraman, 1990) is not of much use in the measurement of patient satisfaction in health care units because of the presence of global service quality domain (Sharma, 1996). The patient satisfaction construct used in various studies like Mowen *et al.* (1993) and Peyrot *et al.* (1993) has considered staff behaviour as a common variable for different medical personnel. The said construct could not be used in this study for two

reasons which are as follows:

- Because of the difference in the nature of job of different medical personnel.
- It is hypothesized that patient satisfaction depends on the performance of doctors and medical assistants, besides other factors. Thus, for measuring patient satisfaction, a different construct is required.

In the present study, patient satisfaction is quantified by measuring the attitude of regular and experienced patients. It is assumed that these patients have formed a positive attitude with regard to the service performance of the provider based on prior use of services. As service quality is related to the prior use of services, the experience of the patient with the same provider in the previous few encounters would clearly reflect the good service quality of the provider. Furthermore, the formed attitude is again modified by the level of satisfaction experienced by the patient during his last encounter with the provider. The revised attitude becomes the relevant input for determining patient satisfaction. Thus, satisfaction moderates service quality and becomes a part of the revised perception of service quality (Oliver, 1980). And this process goes on.

Generation of Scale Items

Patient satisfaction is widely recognized as multidimensional consumer judgement construct (Singh, 1990). The patient satisfaction model, as a customer judgement tool, is used for measurement of patients' attitude by comparing their expectations with the accumulated experience and performance of the providers. In the context of the present study, a number of items concerning four variables — performance of doctors, performance of medical assistants, quality of administration, and atmospherics, covering almost all aspects of patient satisfaction were generated with the help of studies reviewed and based on discussion with the medical personnel and subject experts. Brown and Swartz (1989); Parasuraman *et al.* (1988) and Crosby and Stephens (1987) have remarked that certain distinctive features like communication, understanding, respect, helpfulness, etc., are very important for evaluating professional services. Perceptions of these qualities are related to overall satisfaction of the patient (Peyrot *et al.* 1993; Anderson, 1982). In addition, atmospheric distinguishers like comfort, appearance, cleanliness, facility, etc. do affect patient satisfaction (Woodside *et al.* 1989; Anderson, 1982). Furthermore, the functioning of nursing homes, clinics, hospitals, etc. which rests in the hands of the man-

agement plays a significant role in contributing towards patient satisfaction (Sanjivi, 1988; Srinivasan *et al.* 1982). The process of forming an initial item pool for patient satisfaction instrument resulted in 108 items, spreading over the four variables considered to be important by the patients. A five-point Likert (1932) scale ranging from strongly agree to strongly disagree (5<----->1) in each statement was used. The scale values of negatively worded items were reversed before processing the data.

Pretesting

Pretesting of the construct was handled by filling in the drafted questionnaire through person to person contact with the respondents as suggested by Tull and Albaum (1973) from different renowned private health care units, providing same type of services. Only experienced and regular patients were contacted as these patients are quite familiar and knowledgeable enough to make judgements on health care services. This is so because norms of their expectations are well formulated in their minds from past experience for making comparison between the performance and expectations (Czepiel *et al.* 1974; Churchill, 1979). The questionnaire with some needed alterations was finally selected. It consisted of 81 statements categorized into four groups for attitude measurement of patients.

Sample Design and Data Collection

The study is based on primary information collected through pretested questionnaire from 220 randomly selected patients of three reputed private health care units, viz., Medicare, Triveni, and Col. R N Chopra Nursing Home operating in Jammu city and providing identical curative and preventive health services to the outdoor patients in areas like medicine, skin, eye, ENT, bone, etc. Out of 300 (4.5% of the research population) questionnaires filled in personally by the respondents who were selected randomly from alphabetically arranged consolidated list of 6670 patients who visited these health care units during April 1, 1996 to March 31, 1997, only 220 questionnaires were found suitable for research work. The problem of incorrect judgement with regard to the items used was taken care of in the present study as only regular and experienced patients were contacted. The data so collected from the patients of different health care units were clubbed together for analysis after comparing similarity in attitude and perception of respondents with regard to out-patient services.

Reliability and Validity of Patient Satisfaction Construct

The reliability of the study was examined by distrib-

uting the respondents in order of sequence from 1 to 73 into sub-sample I, 74 to 146 into sub-sample II and 147 to 220 into sub-sample III to see if the variation in each of the variables was within the range of sampling error (Tull and Hawkins, 1980). The reliability of the construct was authenticated by almost same results shown by the different sub-samples (Table 1).

Table 1: Extent of Patient Satisfaction

Satisfaction with Respect to	Sub-sample 1	Sub-sample 2	Sub-sample 3	Overall Average
Behaviour of Doctors	3.75	3.86	3.90	3.83
Behaviour of Medical Assistants	3.61	3.96	3.78	3.78
Quality of Administration	3.21	3.28	3.05	3.18
Atmospherics	3.02	3.10	3.06	3.06
Overall Average	3.40	3.55	3.45	3.47

Further, the convergent validity of the construct was also checked by examining the conceptual and empirical criteria (Churchill, 1979; Parasuraman *et al.* 1988 and 1991). Convergent validity, in this context, refers to the consistent, free, and unbiased information obtained from the respondents in the survey. The primary threat to the convergent validity in the present study (Churchill, 1979) was checked by examining the nature of association between satisfaction scores and responses to the three statements regarding overall performance of the hospital, satisfactory services, and consciousness of the health providers about the patients' problems. The ratings obtained on the Likert scale about these three statements were converted to three points below average (1-2), average (3), and above average (4-5) to make interpretations more lucid. Less variations were observed in the results of three statements in the three categories (Table 2). The

Table 2: Variable-wise Satisfaction Under Three Levels of Key Factors

Variables	Overall Performance			Satisfactory Service			Consciousness of the Provider		
	BA	A	AA	BA	A	AA	BA	A	AA
Behaviour of Doctors	3.05	3.20	3.85	3.10	3.20	3.90	3.50	3.11	3.96
Behaviour of Medical Assistants	3.50	3.12	3.97	2.50	3.05	3.46	2.81	3.08	3.46
Quality of Administration	2.81	3.08	3.51	2.59	2.61	2.98	3.78	3.86	4.05
Atmospherics Grand Mean	3.24	2.89	2.33	2.75	3.50	3.75	2.99	3.05	4.07
No.	30	86	104	24	94	102	44	68	108

Key: BA = Below Average
A = Average

AA = Above Average
No. = Number of Respondents

average satisfaction score was same in the three categories. Majority of the respondents were falling in the above average category and have rated average patient satisfaction scores. This supports the strength of linkage between the three statements thus fulfilling the condition of convergent validity.

Results

Criteria for Selecting the Health Care Unit

Respondents were asked to evaluate the criteria used to choose a private health care unit. The attributes used were overall reputation, efficiency, location, price, own physician, prior family experience and recommendation by friends, relatives, etc., and sanitation. It was found that patients gave first preference to the efficiency of doctors followed by prior family experience and recommendations by friends, relatives, etc. in selecting the private clinics for their outdoor services. Twenty nine per cent of the respondents preferred to avail services from private units because of time factor. The time factor was ranked fifth. Table 3 presents the list of seven attributes used by the patients in selecting the health care units in diminishing order.

Overall Patients' Attitude Towards Outdoor Services

The patients have got average level of satisfaction. The items used in different variables have got significant impact on the patients' perception of health care quality in comparison to public health services (Sharma and Chahal, 1995). Table 4 provides valuable insights about customer satisfaction score with respect to the doctors' performance in terms of necessary health care attributes arranged in diminishing order of relative importance. Knowledge and efficiency is the most important attribute and cooperation is the second best attribute. Confidentiality and individual consideration are contributing least to patient satisfaction score.

Table 3: Selection Criteria Used by Respondents

<i>S.No.</i>	<i>Attributes</i>	<i>Ranks</i>
1	Efficiency	1
2	Prior Family Experience and Recommendations by Friends, Relatives etc.	2
3	Reputation	3
4	Own Physician	4
5	Time Factor	5
6	Location	6
7	Sanitation	7

Politeness, impartial attitude, examination comfort, and experience have ranked third, fourth, fifth, and sixth respectively. Almost same ranking is obtained for medical assistants with regard to attributes like knowledge, cooperation, politeness, and impartial attitude. Maintenance of records, answering of queries and experience have secured fifth, sixth, and seventh positions respectively in the variables related with performance of medical assistants. The quality of administration is better in private health care units in comparison to public health care units (Sharma and Chahal, 1995) with regard to factors like convenient office hours, simple checking procedure, prompt service, and no overcrowding. The attribute high fee has been ranked last. Attributes like grievance handling system, invitation of suggestions and their implementation are contributing less to the patient satisfaction score. The patients feel happy with the sanitation and cleanliness

condition of different health care units. Seven per cent of the patients came just because the private health care units are meticulously clean in comparison to government health care units. The patients have given great importance to the infrastructure facilities of the unit.

Relationship Between Overall Satisfaction and Variable-wise Satisfaction

The correlation coefficients given in Table 5 indicate highest degree of inter-connectedness between overall satisfaction and the performance of doctors and medical assistants among patients belonging to service class as compared to business and dependent groups. In the majority of the cases, the administrative effectiveness is least related to the overall satisfaction as compared to the behaviour of doctors, medical assistants, and the quality of overall health care atmosphere in the private health care units. However, the value of "r," which is greater than 0.1 in all the cases as per the cut-off rate recommended by Kerlinger and Pedazhur (1973), does signify the close relationship between overall satisfaction and variable-wise satisfaction of patients belonging to all the three occupational classes.

Socio-Demographic Groups and Patient Satisfaction

The mean scores of satisfaction achieved by the patients belonging to different socio-demographic groups (Table 6) fall in line with Fox and Storms (1981) that gender influences the evaluation of health care

Table 4: Attribute Ratings for Different Variables

<i>Rank No.</i>	<i>Doctor</i>	<i>Medical Assistants</i>	<i>Quality of Administration</i>	<i>Facilities and Sanitation</i>
1.	Efficiency/Knowledge	Knowledge	Convenient Office Hours	Well-equipped Units
2.	Cooperation	Cooperation with Doctors and Patients	Simple Checking Procedure	Proper Sitting/ Bedding Arrangements
3.	Politeness	Politeness	Prompt Service without Appointment	Physical Comfort (Examination Room and Waiting Room)
4.	Impartial Attitude	Impartial Attitude	No Over Crowding	Staff Appearance Fresh
5.	Examination Comfort	Proper Record	No Grievances Handling System	Natural Light
6.	Experience	Queries Properly Handled	Welcome and Implement Your Suggestions	Dust Boxes and Spittoons Provided
7.	Thorough Checkup	Experienced	High Fee	No Flies/Mosquitoes
8.	Working According to Patients' Expectations			Outer and Inner Appearance Clean
9.	Individual Consideration and Confidentiality Maintained			Parking Space

Table 5: Variable-wise Correlation Coefficient Values of Different Segments

Occupation	Variables	Correlation
Business	A	0.53
	B	0.34
	C	0.42
	D	0.42
Service	A	0.59
	B	0.64
	C	0.26
	D	0.39
Dependents	A	0.25
	B	0.30
	C	0.18
	D	0.34

Key: A = Behaviour of Doctors
 B = Behaviour of Medical Assistants
 C = Quality of Administration D = Atmospherics

services by the patients and also supports partially the findings of Gopalakrishnan and Mummaleeni (1993) and Aday *et al.* (1990) wherein women were said to have expressed higher level of satisfaction with health care units. The above average education group respondents are highly satisfied as compared to average and below average educational groups. Similarly, above average income group is having high degree of satisfaction in comparison to the rest of the two lower income groups. All this indicates that there is some consistency between the levels of income, education, and the satisfaction of patients. However, the level of satisfaction varying from 3.19 among business class patients to 3.26 in service class to 3.72 among the patients belonging to the dependent segment

signifies that financially dependent class tends to be more satisfied (Rosenblat and Schuman, 1969). Table 7 indicates that more than 60 per cent of target market is highly satisfied with regard to all the variables of health care services undertaken. Moreover, the study also supports the findings of Luft (1981) that the doctors and medical assistants are important predictors of overall patient satisfaction and their quality of personal integration with patients and medical staff influences the attitude of patients.

Discussion

The findings identify several non-medical aspects of services encounter responsible for producing increased satisfaction in private health care units. The main intangible factors include knowledge, cooperation, interpersonal warmth, adequate and timely information, prompt services, efficiency of the staff, convenience, etc. Professional ability ranks amongst the top three factors influencing overall patient satisfaction with regard to doctors and medical assistants in different groups. A plausible explanation for the importance of the variable to overall satisfaction is that the patient has become aware of his rights and is more involved in the selection and evaluation of doctors. Frequency/continuity of care is also an important predictor of overall satisfaction. The importance of visiting the same doctor/health care unit everytime reflects the good service quality of health care providers. This helps in moderating the impact of negative influences such as high cost, mercenary motives, partiality, etc. Similarly, continuity of care, efficiency of the staff, and interpersonal warmth of the staff also moderate the impact of negative influences like high cost and long waiting hours for the service. The present study established a linkage between expectation of information and patient compliance and

Table 6: Variable-wise Satisfaction of Different Demographic Groups

Variables	Sex		Occupation			Income			Education		
	M	F	B	S	D	BA	A	AA	BA	A	AA
Behaviour of Doctors	3.70	4.06	3.30	3.92	3.69	4.01	4.05	3.57	3.99	2.95	4.69
Behaviour of Medical Assistants	3.41	3.01	3.50	3.21	4.55	3.81	3.30	4.17	4.01	4.15	3.12
Quality of Administration	2.70	3.05	2.95	2.76	3.44	3.01	2.90	3.22	2.83	3.16	3.15
Atmospherics	3.30	2.94	3.01	3.16	3.19	2.65	2.49	4.20	2.90	2.86	3.59
Grand Mean	3.28	3.26	3.19	3.26	3.72	3.37	3.12	3.79	3.43	3.28	3.64

Key M = Male D = Dependent
 F = Female BA = Below Average
 B = Business A = Average
 S = Service AA = Above Average

Table 7: Variable-wise Percentage of Respondents Falling in Different Level of Satisfaction Ranges

Variable	Level of Satisfaction							
	1-2		2-3		3-4		4-5	
	No.	%	No.	%	No.	%	No.	%
Behaviour of Doctors	6	2.7	69	31.4	96	43.6	49	22.3
Behaviour of Medical Assistants	5	2.3	67	30.4	88	40.0	60	27.3
Quality of Administration	12	5.4	74	33.6	75	34.1	59	26.8
Atmospherics	10	4.5	70	31.8	89	40.4	51	23.1
Overall	11	5.0	73	33.2	79	35.9	57	25.9

satisfaction (Garrity, 1981). The study highlighted that when patients knew what to expect, they were more at ease and would feel more satisfied. Thus, reduction on uncertainty increases patient satisfaction. Promptness in delivering of services has a significant impact on the patient as worked out by Hildman and Ferguson (1990) and May (1991). Unlike the results of Woodside *et al.* (1989) which indicated that overall satisfaction was related to specific services acts and there are certain service characteristics which are more important than others, it was found that substantial association existed among all different variables of the construct for health service. The result also differed from the study undertaken by Peyrot *et al.* (1993) for diagnostic services. These divergent results may reflect different nature of service transaction in different settings. Cost, an important factor for the patients, is found to be a less important predictor of patient satisfaction. Financial consideration is an important factor for the patient as about 50 per cent of the population would think twice before availing any medical facility which is expensive. On the other hand, it is also important for the providers, because with the rising cost of new technology and equipment, it is imperative for them to charge high fee from patients for both diagnostic and hospital services. Given that the cost of doing business is the most important factor responsible for enhanced charges in the private health care units (Becker and Kaldeberg, 1991), it is important for the providers to explain to their patients the rationale behind the fee charged. Such explanations would definitely change the perception of 58 per cent of patients who believe that providers charge too high a fee and recommend lengthy and complicated formalities and procedures for surgery and laboratory tests. Private health care units can improve the patient satisfaction level by making such procedures simple and easily understandable to the patients.

Strategic Implications

The average degree of satisfaction secured by patients in private health care sectors is far greater than the

degree of satisfaction secured by patients of government health system (Sharma and Chahal, 1995). At the same time, research results also reveal that the benefits sought by patients do not always provide high degree of satisfaction. It is evident from Table 7 that about 38 per cent of the patients are having low degree of satisfaction. Certain technological and non-technological core competencies including costly services do not appear to be highly valued by the potential patients. Even though renowned private health care units are positioning themselves as leaders in health sectors, the findings suggest ways by which they can become more conscious to the patient. The patient-oriented approach will help the private health service provides in linking their technological and non-technological factors to the unserved needs of the patients which, in turn, will help in enhancing the degree of patient satisfaction. It is found that overall satisfaction is a result of number of factors like performance of doctors, performance of medical assistants, good level of communication, promptness in delivering the services, responsiveness to customer needs, information and report requirements of the patients, cleaned atmospheric conditions, availability of necessary and essential facilities and drugs, etc (Exhibit 1).

Given the low level of satisfaction score with regard to a number of factors, patient satisfaction can be enhanced by meeting the unmet needs of patients. The various strategic actions suggested in Exhibit 1 should be implemented by the private health care hospitals in India for improving and maintaining high patient satisfaction. These suggestions will not only improve the overall health care atmosphere but will also provide an in-built mechanism to monitor the system for all-round effectiveness in health care services.

Though the results obtained from the present sample are fairly representative and meaningful, caution must be exercised in extending the conclusions

to all health care services in India. The study does not measure the gap between performance and expectations. The Gap Model (Parasuraman *et al.* 1988; Swan and Trawick, 1981) could be employed to find out the true contribution of the variables. The construction of these and the other relevant variables needs to be assessed in future research for better understanding of patient responses to health care services. Reliability measure is a significant tool for interpreting and drawing firm conclusions from the

results. The reliability coefficient measure, i.e., Cronbach alpha values could be used in future research for testing the reliability of the construct (Cronbach, 1951 and Nunnally, 1978). With improved measures, it is possible that results would account for greater proportion of the variation in patient satisfaction. Tools like factor analysis could be used for scale purification by data reduction technique and for identification of important factors influencing patient satisfaction (Tabachnick and Fidell, 1983).

Exhibit 1: Suggestions for Improving Patient Satisfaction

Responding to patients' enquiry promptly

Bridging the communication gap between patients and medical personnel

Becoming more friendly and understanding to the problems of patients

Maintaining cleanliness in the units, both internally and externally

Providing regular report regarding the patients' progress without waiting for them to demand

Providing grievances redressal system in the unit

Conducting surveys to know about the attitude of the patients with regard to the employees

Adopting patient-oriented policies and procedures

Providing "USA" (Unique Service Advantage) treatment to the patients, i.e., extra and individual care

Solving patient-related problems immediately

Providing every type of essential facility

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