A review of patient satisfaction: 1. Concepts of satisfaction

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Against a background of growing consumerism, satisfying patients has become a key task for all healthcare providers. This paper reviews current conceptual models of consumer satisfaction, including the one most dominant in the marketing literature — disconfirmation theory.

Virtually every organisation is nowadays concerned with satisfying the users of its products or services be they known as clients, customers, consumers or patients. The subject of satisfaction has been studied extensively in the fields of sociology, psychology, marketing and healthcare management and while the particular focus of interest in each individual discipline tends to be quite distinct, common themes do exist, especially in the approach to satisfaction found in the 'younger' discipline of marketing which draws on conceptual developments presented in the sociology and psychology literatures. Indeed consumer satisfaction is at the very core of modern marketing theory and practice which is based on the notion that organisations survive and prosper through meeting the needs of customers. Ever since the first satisfaction studies of the 1960s,[1] there has been a proliferation of research on the subject with an estimated 15,000 academic and trade articles published on consumer satisfaction during the past two decades alone.[2] This interest is due primarily to the fact that for a business to be successful in the long run it must satisfy customers, while simultaneously satisfying its own objectives:

'The satisfied customer is an indispensable means of creating a sustainable advantage in the competitive environment of the 1990s'.[3]

Consumer satisfaction with healthcare has, in recent years, gained widespread recognition as a measure of quality, especially since the publication of the 1983 NHS Management Inquiry and its call for the collation of user opinion.[4] This has arisen partly because of the desire for greater involvement of the consumer in the healthcare process and partly because of the links demonstrated to exist between satisfaction and patient compliance in areas such as appointment keeping, intentions to comply with recommended treatment and medication use.[5] Since high quality clinical outcome is dependent on compliance which, in turn, is dependent on patient satisfaction the latter has come to be seen as a legitimate health care goal and therefore a prerequisite of quality care:

'Put simply, care cannot be high quality unless the patient is satisfied'. [6]

This review therefore assumes that satisfying patients is a fundamentally sound principle and that an understanding of the nature of satisfaction is desirable if healthcare providers, not least dental practitioners, are to deliver quality care and succeed in today's rapidly changing business and economic environment. Part 1 of this paper presents an overview of the way user satisfaction is presented in the marketing literature and wider healthcare literatures. Part 2 then reviews recent literature dealing specifically with dental patient satisfaction.

In brief

- Consumer satisfaction, in its widest sense, is seen as being a complex process balancing consumer expectations with perceptions of the service or product in question.
- The 'zone of tolerance' theory explains how consumers are able to recognise that service performance may vary along with the extent to which they are willing to accept this variation.
- Similar mechanisms appear to play a role in the determination of patient satisfaction with healthcare, although this review suggests that the process is far from being a simplistic comparison between expectations and perceptions.

Consumer satisfaction — the marketing perspective

The marketing literature originally saw consumer satisfaction as being an outcome resulting from the consumption experience:

'The buyer's cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone'.[7]

More recent definitions, however, see satisfaction as a complex evaluative process:

'An evaluation rendered that the (consumption) experience was at least as good as it was supposed to be'.[8]

This latter approach is now much more widely accepted since, compared to the outcome-oriented approach, it takes into account the social-psychological determinants of satisfaction, that is the perceptions, evaluations and comparisons which precede an evaluation.

Disconfirmation theory

By far the most dominant of the conceptual models of consumer satisfaction 'disconfirmation' — proposes that the consumer compares his or her perceptions of the product or service against a 'pre-purchase' comparison level or standard, the most widely researched being consumer expectations.[9] Satisfaction is then mediated by the size and direction of disconfirmation — the difference between an individual's pre-purchase expectations and the performance or quality of the product or service. As far as services are concerned this quality assessment comprises consumer perceptions of a number of service attributes:[10]

- *Reliability:* ability to perform the promised service dependably and accurately

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REFEREED PAPER
Received 24.02.98; accepted 08.07.98

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- *Responsiveness:* willingness to help customers and provide prompt service
- *Assurance:* employees' knowledge and courtesy and their ability to inspire trust and confidence
- *Empathy:* caring, individualised attention given to customers
- *Tangibles:* appearance of physical facilities, equipment, personnel, and written materials.

The terms 'satisfaction' and 'quality assessment' are often used interchangeably and while they have certain things in common, satisfaction is generally seen to be the broader concept and one that can be viewed either at the individual service encounter (transaction) level or at a more global level, encompassing all experiences with an organisation.[11] Perceived quality is just one of a number of antecedent factors driving satisfaction.[11] This can be illustrated by the observation that quality perceptions can occur in the absence of actual experience with an organisation:[12] 'I know Dr X provides a high quality service, even though I have never been treated by him' whereas consumer satisfaction or dissatisfaction can only arise following an actual experience with the organisation: 'I cannot tell you how satisfied I am with Dr X because I have never been treated by him'. It is also important to stress that it is *perceived* quality that is important:

'The notion of 'objective' performance is an indefinable state in most cases. All attribute performance will be judged by a service user in perceptual terms. Even with an apparently objective measure, such as waiting time, it is not so much the absolute time but the evaluation of it, as being long/short, or acceptable/unacceptable, which will always be subjective, dependent on the evaluator'. [13]

Disconfirmation theory proposes that, all things being equal, the higher one's expectations, the less likely that service or product performance can meet or exceed them, the result being reduced satisfaction or even dissatisfaction; the higher the perceived level of performance, the more likely that expectations will be exceeded, resulting in increased satisfaction. This has led some observers to recommend deliberately underpromising the service to increase the likelihood of meeting or exceeding customer expectations.[14] Zeithaml and Bitner[12] argue, however, that while underpromising makes expectations more realistic, thereby narrowing the gap between expectations and perceptions, it may also reduce the competitive appeal of the offer. Research also indicates that underpromising may have the inadvertent effect of lowering customer perceptions, especially in situations where consumers have little experience with a product or service.[15] In addition, there is evidence to suggest that raising expectations prior to use often results in increased perceptions about performance even though the product or service may have performed poorly.[16] In this latter instance expectations are influencing satisfaction independently of perceptions, an effect which has been explained by the assimilation-contrast theory. This theory combines elements of Festinger's theory of cognitive dissonance[17] which holds that when an individual receives two ideas which are dissonant, he or she attempts to reduce this mental discomfort by changing or distorting one or both of the ideas to make them more consonant. Disconfirmation theory suggests that when perceptions of attribute performance differ only slightly from expectations, there is a tendency for people to displace their perceptions toward their expectations — the *assimilation* effect. There comes a point either side of this range though where people can no longer effect displacement and instead they begin to exaggerate the increasingly large variation between perceptions and expectations — the *contrast* effect. A number of studies have also found that the effects of expectations differ under different conditions, between consumer groups, across different product categories (high against low consumer-involvement products), and between products and services.[18–22]

Types of expectation

In an attempt to explain more fully these differences and contradictions, researchers are taking a broader view of the term 'expectations', realising that consumers can and do hold several different types of expectation and that these are characterised by a range of levels, rather than a single level. As LaTour and Peat have observed, using expectations only in the sense of 'what will happen' leads to logical inconsistencies such as predicting that a consumer who expects, and subsequently receives, poor performance will somehow be satisfied.[23]

In terms of services, Zeithaml and Bitner[12] distinguish between three types of expectation. The first is *desired service,* defined as the level of service the customer hopes to receive, the 'wished for' level of performance blending what the customer believes 'can be' and 'should be'. Customers hope to achieve their service desires but recognise that this is not always possible and for this reason they hold a second, lower level expectation, *adequate service,* representing the 'minimum tolerable expectation' or bottom level of acceptable performance. Finally, *predicted service* is the level of service customers believe they are likely to get and implies some objective calculation of the probability of performance. Zeithaml and Bitner argue that customers recognise that service performance may vary and that the extent to which they recognise and are willing to accept this variation is called the *zone of tolerance.*[12] In theory predicted service could equate with either adequate or desired service but is most likely to fall between the two and hence within the zone of tolerance. The zone of tolerance is seen as the range or window in which customers do not particularly notice service performance. When performance falls outside the range (either very high or very low) the customer expresses satisfaction or dissatisfaction.

Customer tolerance zones are thought to vary for different service attributes and the more important the factor, the narrower the zone of tolerance is likely to be.[24] Figure 1 shows the tolerance zone concept and portrays the likely difference between the most important (eg service outcome — the result of the

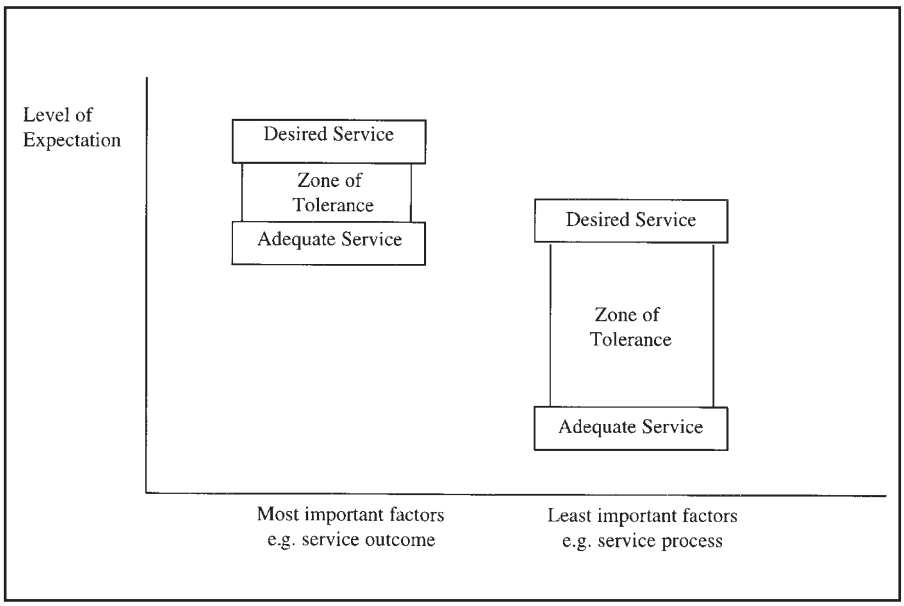

Fig. 1 The zone of tolerance for different service dimensions

service) and the least important factors (eg service process — the way the service is delivered).

Other influences

In addition to expectations, themes such as equity and attribution have also been proposed as determinants of consumer satisfaction. Social equity theory is particularly relevant to satisfaction with services and asserts that individuals compare their gains (the balance of what they put in and what they get out) with those of other consumers and with those of the service provider.[25] Satisfaction is thought to exist when an individual perceives that the outcome-to-input rations are fair. Fisk and Young explored equity theory in the setting of an airline and found that inequitable waiting and pricing (ie detrimental to the consumer) led to consumer dissatisfaction.[26] Perhaps not surprisingly positive inequity (ie beneficial to the consumer) was seen to be fair or satisfactory by consumers. The concept of equity relates to the theory of social comparison[27] which spells out the way social comparisons influence the formation and evaluation of opinions — people ascertaining whether their opinions and evaluations are correct by comparing themselves with other people.

Attribution theory, on the other hand, comes into play when products or services fail to meet consumer expectations and assumes that people search for causes of events, such causes being either buyer-related or seller-related. Buyer and seller may infer different reasons for failure so leading to conflict which results in dissatisfaction.[28]

The marketing approach to conceptualising satisfaction draws heavily on the work of Fishbein and Ajzen into beliefs and attitudes.[29] Central to this approach is the notion that satisfaction arises out of an interplay between cognitive and affective processes. According to Fishbein and Ajzen perceptions,[29] including beliefs, are *cognitive* in nature (referring to the process of knowing or thinking) and represent the information an individual has about the object in question while attitudes, on the other hand, are *affective* in nature (referring to the process of emotion) and are characterised by a general evaluation or feeling of favorableness or unfavourableness toward the object. As far as satisfaction is concerned, the expectation formation process, the comparison of performance to expectations or desires, and judgments based on equity and attribution are mostly conscious, overt activities and therefore primarily cognitive in nature. The role that affective responses, not under conscious control, play in the satisfaction process is less well developed. However, it is now accepted that a variety of emotional responses, including such affects as joy, excitement, pride, anger, sadness and guilt do play a significant, complimentary, role in determining satisfaction.[30] Indeed satisfaction (or dissatisfaction) can be viewed as a positive (or negative) affective response. Blending these various theories results in the conceptual model of consumer satisfaction shown in figure 2.

Patient satisfaction — the healthcare perspective

In a seminal paper on the subject of patient satisfaction Locker,[31] noted that the preoccupation of most researchers at that time was with identifying socio-demographic correlates of satisfaction rather than developing a solid socio-psychological theoretical understanding. Since then a number of studies have been conducted to find out more about how patients evaluate the care they receive and to develop conceptual models of patient satisfaction. The majority of these models have been reviewed extensively by Pascoe,[32] with most including the role of expectations as a central component of the satisfaction process. Oliver, for example, examined flu shots and found that positive disconfirmation (ie perceived performance above that expected) increased consumer satisfaction, while negative disconfirmation (ie perceived performance below that expected) decreased consumer satisfaction.[9] A growing number of researchers, however, are of the opinion that patient satisfaction and consumer satisfaction are not one and the same thing, and that the marketing-oriented conceptual model does not easily fit, or is simply inappropriate for, many common medical scenarios. What follows is a discussion of the reasons why satisfaction with healthcare might be different.

Healthcare studies

The most commonly-cited reservation concerns the role that expectations, which are central to the consumer model, play in determining satisfaction with healthcare. The work of Linder-Peltz[33,34] on the interaction between patient expectations and perceptions is seen to be particularly influential in this respect. Data concerning patients' healthcare values, expectations and sense of entitlement to care were collected from 125 first-time patients at a primary care clinic, immediately before seeing a physician. Post-visit satisfaction with a number of dimensions of care was also recorded. Two findings from this research suggest that disconfirmation theory might not be an entirely appropriate model for the healthcare

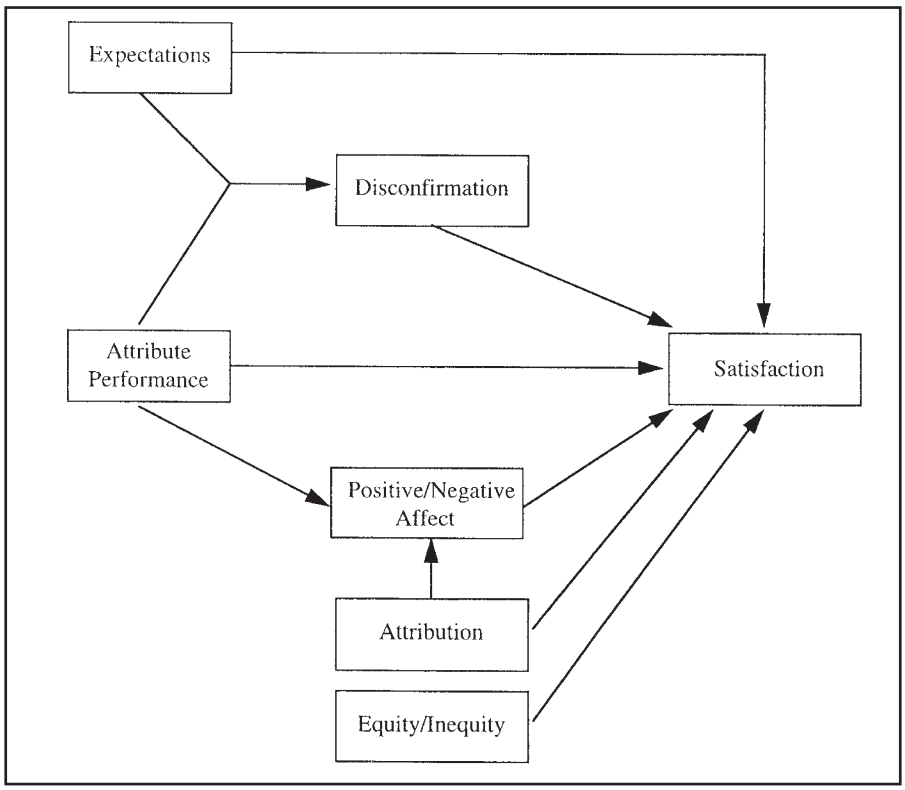

Fig. 2 A composite Cognition-Affect model of satisfaction as proposed by Oliver.[30] Cognitive antecedents include expectations, performance, disconfirmation, attribution and equity/inequity. Expectations and performance may exert a direct effect upon satisfaction or may be mediated indirectly through the process of disconfirmation. Affect, both positive and negative, is seen as another intermediary between both performance and attribution. Equity is postulated as a further distinct contributor to satisfaction, unrelated to affect or other cognitive components

setting. The first is that, in spite of being the most important antecedent social-psychological variable, patient expectations could only account for 8% of the variance in satisfaction and, together with values and perceptions (of the service received), only 10% of the variation. This suggests that while there is evidence that patient's expectations and values are involved in evaluations they do not appear to be related in any simplistic fashion. According to this study there is little evidence to suggest that satisfaction is *largely* the result of fulfilled expectations and values.

Linder-Peltz's second important finding is that expectations have an effect on satisfaction *independent* of other variables (ie irrespective of their fulfilment) leading the author to conclude that:[34]

'*...beliefs about doctor conduct prior to an encounter play a significant role in determining subsequent evaluations of the doctor conduct, irrespective of what (s)he actually did or was perceived to have done. It suggests that patients are likely to express satisfaction no matter what care the doctor gives, at least in the setting of the present study. Practically, the independent effect of expectations on satisfaction with doctor conduct implies that clinic staff — and particularly doctors themselves — can ensure the satisfaction (favourable ratings) of their clients by engendering positive expectations. With regard to health services research, this finding suggests that knowledge of patients' expectations can tell a great deal about how they will later rate the visit.*'

This is not to say that expressions of satisfaction have little to do with the qualities of the service provided or the care offered and clearly 'engendering positive expectations' must not be confused with raising false hopes which deliberately mislead patients, nevertheless the assumption that satisfaction is *entirely* the product of an evaluation *per se* may not apply in all situations. In this regard Zeithaml *et al.*,[35] have noted that while consumers ultimately judge the quality of services on their perceptions of the technical outcome provided and how that outcome was delivered (process quality), many professional services are highly complex and a clear outcome is not always evident. This is certainly true of many healthcare scenarios where the technical quality of the service— the actual competence of the provider or effectiveness of the outcome — is not easy to judge. The patient may never know for sure whether the service was performed correctly or even if it was needed in the first place. For example, Williams has observed that the greater the perceived esoteric or technical nature of treatment the more likely it is that many service users will not believe in the legitimacy of holding their own expectations, or of their evaluations.[36] In addition, if a service user is coming into contact with the system for the first time then expectations, which for many have been formed through past experience, might be waiting formation. In both cases a patient might wish for the health professional to adopt a paternalistic role in the relationship ('doctor knows best') while they themselves remain a passive partner.

Donabedian sees quality of healthcare as a trilogy comprising 'structure, process and outcome'.[37] Zeithaml *et al.*,[35] however, argue that service users who cannot judge the technical quality of the outcome effectively will base their quality judgements on structure and process dimensions such as physical settings, the ability to solve problems, to empathise, time-keeping, courtesy and so on. Shaw concurs with this view in a review of satisfaction studies of the social services:[38]

'*Client evaluations are relative to context, to knowledge of services, to expectations, to help received from other services, to perceptions of the 'pleasantness' of the social worker. Unless such factors are taken into account, we can never be sure whether the high rate of client satisfaction is related more to factors like knowledge or limited expectations, than the actual helpfulness of the social service contact.*'

The zone of tolerance concept seems to be particularly applicable to the healthcare setting and could explain the findings of a study looking at the effect of 'good' and 'bad' surprises on satisfaction levels.[39] The study was particularly concerned with the effect of social norms which the user might only become conscious of when transgressed; 'good surprises' being defined as care going well

beyond what was expected and 'bad surprises' equivalent to the transgression of typical values. The results indicate that the majority of those relating a 'good' surprise (above the level of desired service) or no 'surprise' (within the zone of tolerance) expressed satisfaction while those who had experienced a 'bad surprise' (below the level of adequate service) were more likely to have expressed dissatisfaction. The satisfaction processes at play are likely to differ in the same individual depending on the severity of the condition he or she presents with. Patients will probably use different criteria to judge the management of a life-threatening emergency as compared to a routine health check and evaluation may differ depending upon whether it is the patient or the health professional who identifies the problem in the first place. Clearly, healthcare is not homogeneous; it is a distinctive, complex mixture of emotion, the tangible and the intangible, and its consumption cannot be viewed in entirely the same light as that for a consumer product such as a television or a washing machine.

Conclusion

At first sight the notion of satisfaction may seem unproblematic but as yet there is still no common and unifying definition of the concept. Disconfirmation theory is the most widely accepted in the marketing literature although it does not fully explain the whole evaluation process and it is likely that future research will concentrate on the roles played by such phenomena as attribution and equity.

This appears to be especially so in the case of satisfaction with healthcare where elements of the consumer model do apply although the roles played by patient expectations, perceptions and disconfirmation are not yet fully understood. Much seems to depend on the way patients perceive themselves in relation to the healthcare system and it is possible that some patients might simply remain passive and not evaluate the service provided.

1 Cardozo R. An experimental study of consumer effort, expectation and satisfaction. *J Market Res* 1965; **2**: 244-249.
2 Peterson R. Measuring customer satisfaction: Fact and artifact. *J Acad Market Sci* 1992; **20**: 61-71.
3 Patterson P, Johnson L, Spreng R. Modeling the determinants of customer satisfaction for business-to-business professional services. *J Acad Market Sci* 1997; **25**: 4-17.
4 NHS Management Inquiry. London: Department of Health and Social Security, 1984
5 Willson P, McNamara J. How perceptions of a simulated physician-patient interaction influence intended satisfaction and compliance. *Social Sci and Med* 1982; **16**: 1699-1704.
6 Vuori H. Patient satisfaction - an attribute or indicator of the quality of care? *Qual Rev Bull* 1987; **13**: 106-108.
7 Howard J, Sheth J. *The theory of buyer behaviour.* New York: Wiley, 1969.
8 Hunt H. CS/D — Overview and future research direction. *In* Hunt H (ed) *Conceptualization and measurement of consumer satisfaction and dissatisfaction.* Cambridge, MA: Marketing Science Institute, 1977.
9 Oliver R. A cognitive model of the antecedents and consequences of satisfaction decisions. *J Market Res* 1980; **17**: 460-469.
10 Parasuraman A, Berry L. SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *J Retail* 1988; **1**: 12-40.
11 Bitner M, Hubbert A. Encounter satisfaction versus overall satisfaction versus quality. *In* Rust R, Oliver R (eds) *Service quality: new directions in theory and practice.* Thousand Oaks, CA: SAGE, 1994.
12 Zeithaml V, Bitner M. *Services marketing.* New York: McGraw-Hill, 1996.
13 Thompson A, Sunol R. Expectations as determinants of patient satisfaction: Concepts, theory and evidence. *Int J for Quality in Health Care* 1995; **7**:127-14 1.
14 Davidow W, Uttal B. Service companies: focus or falter. *Harvard Bus Rev* 1989 (July-August): 77-85.
15 Boulding W, Kalra A, Staelin R, Zeithaml V. A dynamic process model of service quality. *J Marketing Res* 1993; **30**: 7-27.
16 Olson J, Dover P. Disconfirmation of consumer expectations through product trial. *J Applied Psychol* 1979; **64**: 179-189.
17 Festinger L. *A theory of cognitive dissonance.* Stanford, CA: Stanford University Press, 1957.
18 Anderson E. Cross-category variation in customer satisfaction and retention. *Market Lett* 1994; **5**: 19-30.
19 Bolton R, Drew J. A multistage model of customers' assessment of service quality and value. *J Consumer Res* 1991; **17**: 375-384.
20 Cadotte E, Woodruff R, Jenkins R. Expectations and norms in models of consumer satisfaction. *J Market Res* 1987; **24**: 305-314.
21 Halstead D, Hartman D, Schmidt S. Multisource effects on the satisfaction formation process. *J Acad Market Sci* 1994; **22**: 114-129.
22 Spreng R, MacKenzie S, Olshavsky R. A reexamination of the determinants of consumer satisfaction. *J Market* 1996; **60**: 15-32.
23 LaTour S, Peat N. Conceptual and methodological issues in consumer satisfaction research. *In* Wilkie W (ed) *Advances in consumer research.* vol 6. pp431-437. Ann Arbor, MI: Association for Consumer Research, 1979.
24 Parasuraman A, Berry L, Zeithaml V. Understanding customer expectations of service. *Sloan Management Rev* 1991; **32**: 39-48.
25 Oliver R, Swan J. Equity and disconfirmation perceptions as influences on merchant and product satisfaction. *J Consumer Res* 1989; **16**: 372-383.
26 Fisk R, Young C. Disconfirmation of equity expectations: Effects on consumer satisfaction with services. *In* Hirschman E, Holbrook H, (eds) *Advances in consumer research.* Vol 12. Provo, UT: Association for Consumer Research, 1985.
27 Festinger L. A theory of social comparison processes. *Human Relations* 1954; **7**: 117-140.
28 Folkes V. Conflict in the marketplace: Explaining why products fail. *In* Graham S, Folkes V (eds) *Attribution theory: applications to achievement, mental health and interpersonal conflict.* Hillsdale, NJ: Erlbaum, 1990
29 Fishbein M, Ajzen I. *Belief, attitude, intention and behaviour.* Reading, MA: Addison-Wesley, 1975.
30 Oliver R. Cognitive, affective and attribute bases of the satisfaction response. *J Consumer Res* 1993; **20**: 418-430.
31 Locker D, Dunt D. Theoretical and methodological issues in sociological studies of consumer satisfaction with medical care. *Soc Sci Med* 1978; **12**: 283-292.
32 Pascoe G. Patient satisfaction in primary health care. *Evaluation and Program Planning* 1983; **6**: 185-210.
33 Linder-Pelz S. Toward a theory of patient satisfaction. *Soc Sci Med* 1982; **16**: 577-582.
34 Linder-Pelz S. Social psychological determinants of patient satisfaction: a test of five hypotheses. *Soc Sci Med* 1982; **16**: 583-589.
35 Zelthaml V, Parasuraman A, Berry L. *Delivering quality service.* New York: The Free Press, 1990.
36 Williams B. Patient satisfaction: A valid concept? *Soc Sci Med* 1994; **38**: 509-516.
37 Donabedian A. *Explorations in quality assessment and monitoring: Vol 1: The definition of quality and approaches to its assessment.* Ann Arbor, MI: Health Administration Press, 1980.
38 Shaw I. Literature review. Consumer evaluations of the personal social services. *Br J Social Work* 1984; **14**: 277-284.
39 Nelson E, Larson C. Patients' good and bad surprises: how do they relate to overall patient satisfaction. *Qual Rev Bull* 1993; **3**: 89-94.