A critical review of patient satisfaction
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Abstract
Purpose – This paper aims to review the patient satisfaction literature, specifically meta-analyses, which critically analyses its theory and use; then to present evidence for perceived service quality as a separate and more advanced construct.

Design/methodology/approach – Papers that judiciously review the development and application of patient satisfaction were identified; along with studies addressing the conceptual and methodological deficiencies associated with the concept; and the current perceived service quality theory.

Findings – Patient satisfaction has been extensively studied and considerable effort has gone into developing survey instruments to measure it. However, most reviews have been critical of its use, since there is rarely any theoretical or conceptual development of the patient satisfaction concept. The construct has little standardisation, low reliability and uncertain validity. It continues to be used interchangeably with, and as a proxy for, perceived service quality, which is a conceptually different and superior construct.

Practical implications – The persistent use of patient satisfaction to evaluate the client’s perception of the quality of a health service is seriously flawed. The key to solving this dilemma may be for the healthcare sector to focus on perceived health service quality by considering the specific concepts and models that can be found in the services marketing literature. This literature offers more advanced consumer theories which are better differentiated and tested than existing healthcare satisfaction models.

Originality/value – The paper points out that there is an urgent need for differentiation and standardisation of satisfaction and service quality definitions and constructs, and argues for research to focus on measuring perceived health service quality.

Keywords Patients, Health services, Quality management, Customer satisfaction, Australia

Paper type Literature review

1. Introduction
Understanding satisfaction and service quality have, for some considerable time, been recognised as critical to developing service improvement strategies. The inaugural quality assurance work of Donabedian (1980) identified the importance of patient satisfaction as well as providing much of the basis for research in the area of quality assurance in healthcare. In the healthcare sector, the importance of measuring patient satisfaction is well articulated (Lin and Kelly, 1995) with patient satisfaction having been studied and measured extensively as a stand alone construct and as a component of outcome quality (Heidegger et al., 2006) and in particular in quality care assessment studies (Sofaer and Firminger, 2005). Furthermore, the literature tells us that the concept of satisfaction is complicated (Heidegger et al., 2006), irrespective of the area in which it is studied. It is a multidimensional concept; not yet tightly defined; and part of an apparently yet to be determined complex model. (Hawthorne, 2006).

Significant divergence can be found in the recent healthcare literature, for example Gonzales et al. (2005) noted that satisfaction questionnaires have been the most
commonly used method to survey patient perceptions of healthcare for more than 30 years, but only over the previous five years, had studies tried to ensure that the validity of the instrument was well grounded. Yet in contrast, the main finding of a 2006 review of the patient satisfaction literature (Hawthorne, 2006) concluded that none of the instruments reviewed could be considered satisfactory. Hawthorne indicated that there were thousands of patient satisfaction measures available, which have been developed on an “ad hoc” basis, with insufficient evidence of their psychometric properties. Further, quality in healthcare has been studied largely from the clinical perspective, excluding the patient’s perception of service quality. According to Crowe et al. (2002), the subjective affective component of the patient satisfaction construct makes its measurement “probably a hopeless quest” and its study is largely fraught as it has lacked precision, at the expense of exact science, with many researchers having undertaken studies of a purely exploratory nature (Gilbert and Veloutsou, 2006).

This article specifically reviews the health literature which: critiques the conceptual background to patient satisfaction; identifies and summarises the findings of meta-analyses of patient satisfaction in healthcare and its measurement; highlights the operational issues surrounding patient satisfaction and patient perception of health service quality; and analyses the existing focus of healthcare quality. It also considers the services literature for both the satisfaction and perceived service quality constructs, and concludes that after three decades of research, there is still no universally accepted conceptualisation for them. It suggests that given the substantial theoretical progress that has been made in the services literature, it is time for integrated research and for health researchers to move outside of their health research silos and to study satisfaction and perceived service quality in healthcare with a clear link back to this general services literature.

2. Summary of the theories of patient satisfaction in healthcare
The major patient satisfaction theories were published in the 1980s with more recent theories being largely “restatements” of those theories (Hawthorne, 2006). Five key theories can be identified:

1. Discrepancy and transgression theories of Fox and Storms (1981) advocated that as patients’ healthcare orientations differed and provider conditions of care differed, that if orientations and conditions were congruent then patients were satisfied, if not, then they were dissatisfied.

2. Expectancy-value theory of Linder-Pelz (1982) postulated that satisfaction was mediated by personal beliefs and values about care as well as prior expectations about care. Linder-Pelz identified the important relationship between expectations and variance in satisfaction ratings and offered an operational definition for patient satisfaction as “positive evaluations of distinct dimensions of healthcare” (p578). The Linder-Pelz model was developed by Pascoe (1983) to take into account the influence of expectations on satisfaction and then further developed by Strasser et al. (1993) to create a six factor psychological model: cognitive and affective perception formation; multidimensional construct; dynamic process; attitudinal response; iterative; and ameliorated by individual difference.
(3) Determinants and components theory of Ware et al. (1983) propounded that patient satisfaction was a function of patients’ subjective responses to experienced care mediated by their personal preferences and expectations.

(4) Multiple models theory of Fitzpatrick and Hopkins (1983) argued that expectations were socially mediated, reflecting the health goals of the patient and the extent to which illness and healthcare violated the patient’s personal sense of self.

(5) Healthcare quality theory of Donabedian (1980) proposed that satisfaction was the principal outcome of the interpersonal process of care. He argued that the expression of satisfaction or dissatisfaction is the patient’s judgement on the quality of care in all its aspects, but particularly in relation to the interpersonal component of care.

3. The application of patient satisfaction in healthcare
The desired need for the measurement of patient satisfaction has been largely driven by the underlying politics of “new public management” (Hood, 1995) and the concomitant rise in the health consumer movement, with patient satisfaction being one of the articulated goals of healthcare delivery. With the advent of the patient rights movement (Williams, 1994), the debate over the relationship between patient satisfaction as a valuation of the process of care versus the standard of technical care was well established. As a result, the use of patient satisfaction measures in the health sector became increasingly widespread. For example, assessing patient satisfaction has been mandatory for French hospitals since 1998, which is used to improve the hospital environment, patient amenities and facilities in a consumerist sense, but not necessarily to improve care (Boyer et al., 2006).

Whilst there are numerous specific patient satisfaction studies published in peer reviewed journals, there is a smaller body of work which critically reviews the literature and analyses the construct and its use. This work highlights agreement that patient satisfaction suffers from inadequate conceptualisation of the construct, a situation that has not changed significantly since the 1970s, and there is no agreed definition (Hawthorne, 2006). Crowe et al. (2002) identified 37 studies investigating methodological issues and 138 studies investigating the determinants of satisfaction. They indicated that there is agreement that the definitive conceptualisation of satisfaction with healthcare has still not been achieved and that understanding the process by which a patient becomes satisfied or dissatisfied remains unanswered. They suggest that satisfaction is a relative concept and that it only implies adequate service. Further, both Crowe et al. (2002) and Urden (2002) separately point out that patient satisfaction is a cognitive evaluation of the service that is emotionally affected, and it is therefore an individual subjective perception. Crowe et al. (2002) also highlight that there is consistent evidence across settings that the most important determinants of satisfaction are the interpersonal relationships and their related aspects of care. What is agreed is that satisfaction has become an endpoint in outcomes research and the benchmarking of services. Patient satisfaction has come to be seen as a part of health outcome quality which also encompasses the clinical results, economic measures and health related quality of life (Heidegger et al., 2006).
4. Instruments to measure patient satisfaction in healthcare

The work of Hulka et al. (1970) began the initial steps to measure patient satisfaction in the healthcare area with the development of the “Satisfaction with Physician and Primary Care Scale”. This was followed by Ware and Snyder (1975) with their “Patient Satisfaction Questionnaire”, aimed at assisting with the planning, administration and evaluation of health service delivery programs. At the end of the 1970s, the “Client Satisfaction Questionnaire” was developed by Larsen et al. (1979) as an eight-item scale for assessing general patient satisfaction with healthcare services, and was superseded by their “Patient Satisfaction Scale” (1984). Since that time, numerous instruments have been developed but the question remains as to how valid and reliable those instruments really are. Further, the measurement of satisfaction varies depending on the assumptions that are made as to what satisfaction means (Gilbert et al., 2004) and a number of approaches to measurement can be identified: expectancy-disconfirmation; performance only; technical-functional split; satisfaction versus service quality; and attribute importance (Gilbert and Veloutsou, 2006).

Nguyen et al. (1983) indicated that, in the absence of standardised instruments as well as satisfaction scores across studies being so high, it was almost impossible to make meaningful comparisons between different patient satisfaction scale scores. Further Ware et al. (1983) reported that between 40 and 60 percent of respondents exhibited some form of acquiescent response set bias, and Coyle and Williams (1999) argued that dependence prevented patients reporting dissatisfaction. In addition most patient satisfaction tools have been developed in the USA for “ad hoc” hospital use (Hardy et al., 1996). van Campen et al. (1995) noted that patient satisfaction had been extensively investigated, identifying over 3,000 published articles and “dozens” of measuring instruments developed in the ten years prior to their review. Interestingly, they noted that quality of care from the patient’s perspective (QCPP) had often been measured as patient satisfaction. They reported that only five of 113 selected instruments were theoretically or methodologically rigorous, and of those five, only two that had been used were actually designed to measure perceived service quality, SERVQUAL (Parasuraman et al., 1988) and the Patient Judgment of Hospital Quality instrument (Meterko et al., 1990), with the latter being the only one which offered a method for generating items that directly represented patients’ views. However, it should be noted that whilst SERVQUAL has been used in healthcare, it was not designed specifically to measure perceived health service quality and it certainly does not measure satisfaction. A review by Sitzia (1999) found that 81 percent of studies used a new instrument, an additional 10 percent had modified an existing instrument and 60 percent failed to report any psychometric data. Sitzia concluded that the instruments evaluated by the meta-analysis demonstrated little evidence of reliability or validity. A more recent extensive review of patient satisfaction measures identified over 38,000 articles on patient satisfaction using the Medline/Pub Med database plus over 10,000 web sites through internet based search (Hawthorne, 2006). This study assessed instruments that met its criteria for inclusion and highlighted that most papers did not adequately report patient satisfaction; few reported the instrument used, their psychometric properties or the actual results; and most reported patient satisfaction based on a single item.

A number of meta-analyses of patient satisfaction studies have been conducted (Pascoe, 1983; van Campen et al., 1995; Sitzia, 1999; Crowe et al., 2002; and Hawthorne,
5. Satisfaction in the services marketing sector
To demonstrate the unresolved conceptual difficulties with the satisfaction construct, in the services literature it is depicted as: both a summary psychological state and encounter specific (Oliver, 1981); the discrepancy between prior expectations and actual performance (Yi, 1990); comprised of both affective and cognitive components; an outcome state (Oliver, 1989); the fulfilment response and an experiential construct (Oliver, 1997); a response to both process and outcome (Hill, 2003). Given the range of definitions, there has been contention in the marketing literature on how to conceptualise and measure the service recipient satisfaction concept. The study of customer satisfaction has largely been driven by the desire to understand the behavioural intentions of customers (Cronin et al., 2000); however its measurement varies depending on the assumptions that are made as to what satisfaction means (Gilbert et al., 2004). A number of main approaches to measurement can be identified: expectancy-disconfirmation; performance only; technical-functional split; satisfaction versus service quality; and attribute importance (Gilbert and Veloutsou, 2006).

6. Patient satisfaction and perceived service quality in healthcare
Healthcare sector research into patients’ perceptions of the dimensions of service quality (perceived service quality) has been limited (Clemes et al., 2001), yet studies seeking to assess the components of the quality of care in health services predominately continue to measure patient satisfaction (Lee et al., 2006). There is no consensus on how to best conceptualise the relationship between patient satisfaction and their perceptions of the quality of their healthcare. O’Connor and Shewchuk (2003) emphasised that much of the work on patient satisfaction is based on simple descriptive and correlation analyses with no theoretical framework. They concluded that, with regard to health services, the focus should be on measuring technical and functional (how care is delivered) quality and not patient satisfaction.

A study by Gotlieb et al. (1994) on patient discharge, hospital perceived service quality and satisfaction offered evidence of a clear distinction between perceived service quality and patient satisfaction. They found that patient satisfaction mediated the effect of perceived service quality on behavioural intentions, which included adherence to treatment regimes and following provider advice. Cleary and Edgman-Levitan (1997) pointed out that satisfaction surveys in the health care sector did not measure quality of care as they did not include important aspects of care items such as being treated with respect and being involved in treatment decisions. In addition, Taylor (1999) highlighted that confusion continued in the sector regarding the differentiation of service quality from satisfaction and reported that some authors, for example Kleinsorge and Koenig (1991), referred to them as synonymous terms. Nevertheless patient satisfaction continues to be measured as a proxy for the patient’s assessment of service quality (Turris, 2005).

7. Consumers and healthcare quality
The traditional concept of healthcare relationships is based on three primary assumptions: the professional is the expert; the system is the gatekeeper for socially
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<tr>
<td>Sample size (No. studies)</td>
<td>Not specified</td>
<td>165</td>
<td>195</td>
<td>176 (139 determinants of satisfaction; 37 methodological)</td>
<td>130</td>
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<tr>
<td>Data form</td>
<td>All quantitative</td>
<td>Quantitative</td>
<td>93 per cent Quantitative; 7 per cent Qualitative</td>
<td>7 per cent Qualitative; 11 per cent mixed method</td>
<td>All quantitative</td>
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<td>Inclusion patient views</td>
<td>Not addressed</td>
<td>Only one study</td>
<td>11 per cent</td>
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**Key findings**

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<th>Theory/construct</th>
<th>Poor</th>
<th>None based on theory</th>
<th>Poor</th>
<th>Recognised not fully established – 16 per cent based on theory</th>
<th>Unresolved; no agreed theoretical model</th>
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<td>Methodology</td>
<td>Lack of standardisation; simple <em>ad hoc</em> instruments</td>
<td>Five of 113 sound methodology, i.e. met at least three of study requirements</td>
<td>81 per cent used new instrument; of which 61 per cent no psychometric data</td>
<td>Quantitative studies superficial, simplistic and reductionist</td>
<td>No psychometric data; lack of standardisation</td>
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<td>Validity and reliability</td>
<td>Poor validity, problems with reliability</td>
<td>Eight of 165 reported validity and reliability (tested twice or more)</td>
<td>6 per cent minimum level of evidence of validity and reliability</td>
<td>Many possible sources of measurement and interpretation error</td>
<td>Poor, little sustained evidence of validity; some problems with reliability</td>
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<td>Conclusion</td>
<td>Measurement should follow from well developed models of satisfaction</td>
<td>None of the instruments met all five of the study requirements</td>
<td>Little evidence of reliability or validity, plus poor research practice</td>
<td>Use alternative methods to record patient evaluations of healthcare</td>
<td>Unacceptable research practice</td>
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supported services; and the ideal patient is compliant and self-reliant (Thorne et al., 2000). Historically the definition and management of healthcare quality has been the responsibility of the service provider and health services have been largely introspective in defining and assessing quality, focusing mainly on the technical provider components. As a result there is comparatively little work investigating patient perceptions of health service quality (Bell, 2004). There has, however, been some work on clinical governance which has sought to emphasise the importance of the patient perspective but, in general, this work has been based on areas defined by service providers as important rather than on what actually matters to patients (Bell, 2004). Further, Weingart et al. (2006) report that service quality deficiencies in a Boston teaching hospital are so common amongst medical in-patients that they appear to be the norm.

In contrast, the literature shows significant reductions in the total cost of care when the patient’s perception of the quality of the service improves, with the dynamics of poor service delivery often involving wasted effort, repetition, and misuse of skilled employees (Kenagy et al., 1999). Kenagy et al. (1999) point out that an increase in functional quality results in improved outcomes generally in medical illness and specifically in controlled studies of diabetes, hypertension, asthma and rheumatoid arthritis. Surgical outcomes show similar effects with fewer complications and shorter hospital stays. Therefore, improvements in functional quality will result in better health outcomes.

8. Perceived health service quality: the theoretically proven construct
A healthcare service is one that requires high consumer involvement in the consumption process, and Lengnick-Hall (1995) argued that the traditional health sector views of technical quality and patient satisfaction were inadequate to manage the complex relationships between the healthcare provider and the patient. Importantly, effective healthcare relies significantly on the co-contribution of the patient to the service delivery process. Studies have also evidenced that compliance with medical advice and treatment regimes is directly related to the perceived quality of the service and the subsequent resulting health outcome (O'Connor et al., 1994; Irving and Dickson, 2004; Sandoval et al., 2006).

Over the past few decades in the services marketing sector, much work has been undertaken to evaluate the consumer’s perception of service quality, and a number of service models have been developed, with the gap model (Parasuraman et al., 1985) and its accompanying SERVQUAL (Parasuraman et al., 1988) having offered significant advances to the understanding and measurement of perceived service quality. Perceived health service quality has been studied extensively in the private healthcare sector; with SERVQUAL having been used frequently in a modified form and predominantly in the “for profit” American health sector (O'Connor and Trinh, 2000). More recently, Brady and Cronin (2001) advanced the multidimensional hierarchical conceptualisation offered by Dabholkar et al. (1996) by combining that model with the three factor model of Rust and Oliver, and proposed a hierarchical multidimensional model of service quality. Based on this work, Dagger et al. (2007) have proposed service quality as a multidimensional, higher order construct, with four overarching dimensions (interpersonal quality, technical quality, environment quality and administrative quality) and nine sub-dimensions. They suggest that consumers assess service quality at a global level, a dimensional level and at a sub-dimensional
level, with each level influencing perceptions at the level above (Figure 1). From their work with private oncology patients, Dagger et al. (2007) have shown that their model reflects the private patient’s service quality perceptions, and they have developed and tested a scale for measuring perceived private healthcare service quality. Yet this work has had little impact, as the study and measurement of patient satisfaction continues to be the key target for consumer research in the health sector.

Further, only a few studies have sought to evaluate the provider understanding of the patient’s perceptions of health service quality (O’Connor et al., 2000), and very few studies of perceived public healthcare service quality have been undertaken (Sanchez-Perez et al., 2007). Finally, Brown (2007) editorially highlighted that the patient is becoming an evermore silent partner in the health care system, as their views of quality have largely been sidelined by the number of attempts to exclusively determine patient satisfaction with health care. Research that focuses on strengthening our understanding of the meaning, measurement, and management of perceived service quality from the patient’s perspective in healthcare is now arguably paramount.

9. Conclusion
In the healthcare sector, there is an urgent need for differentiation and standardisation of the definitions and constructs for satisfaction and perceived health service quality and their adoption in all future health services research. The continued misuse and perpetuation of the inter-changeability of terminology not only compromises the worth of research, it inhibits the possibility of finding much needed answers as how best to conceive and measure health service quality from the patient’s perspective.

Further, based on the existing evidence that the patient satisfaction is an unpredictable construct, a focus entirely on perceived service quality, as the definitive construct, is justified; and given the extremely high intensity nature of the service

![Multi-dimensional hierarchical model of perceived service quality](source: Dagger et al. (2007))
delivery process in the health industry, it would seem that the continuation of the focus on patient satisfaction as a measure of service outcome and service quality is seriously flawed.

Finally, the services marketing literature has identified the importance of perceived service quality in healthcare and offers some guidance as it has pursued complex research problems associated with this construct. Therefore cooperative interdisciplinary study and knowledge sharing may offer an excellent vehicle to derive a standardised and definitive tool for evaluating the patient’s perception of health service quality.

References


A review of patient satisfaction

19


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