Snip, Snip: Elective Surgery Service Expectations

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Abstract

The high cost of health care provision and the shortage of qualified health care professionals are forcing health care providers to seek new approaches to operational efficiency and service provision. When linked to changing customer expectations we have the potential for a clash of decreasing service provision and increasing service expectations. This paper addresses this dilemma and proposes a way forward by empirically examining the theoretical concept of a Zone of Tolerance in a private hospital setting, investigating those areas where expectations may demonstrate a capacity to satisfactorily tolerate a variation in the levels of service provided. This will allow the private hospital provider prioritisation of scarce resources.

Introduction

Two significant problems faced by the private health industry sector are spiralling costs and a labour shortage of professional health care workers. High costs in private health care relate to the rapidly evolving high-end technology; medical supplies such as pharmaceuticals and prostheses; the highly regulated environment of healthcare; and the labour intensive nature of hospitals. Most of Australia is experiencing significant shortages of doctors, nurses and allied health professionals, adding further cost pressures to wages. Both factors create demands on the hospital provider to review its model of service delivery and ensure the appropriate allocation of its resources both in terms of its financial and labour resources. Ensuring that these resource allocations are congruent with the patients’ self-perceived needs and expectations should underpin any changes the hospital would consider in the delivery of its services. The purpose of this study is to increase the understanding of patients’ expectations of hospital services and investigate patients’ capacity to tolerate variation in the service delivered through testing for a Zone of Tolerance (ZOT). Recognition of patient expectations as a range of expectations will assist the hospital provider in ensuring appropriate allocation of scarce resources incorporates the viewpoint of the patient.

Debate exists, both in the literature and popular media, regarding the classification of a patient as a customer. Despite a trend in the United States to consider patients as customers, there is divided opinion, particularly amongst the medical fraternity, to view patients in this manner (Hudak, McKeever and Wright, 2003). Interestingly, there is strong support amongst patients themselves to be viewed as ‘customers’, particularly in situations where there is an exchange of money between the patient and the service provider. In the case of the private hospital sector all patients, except those funded by the Department of Veterans Affairs (known as ‘veterans’), pay for their healthcare either through a contribution to a health fund or as a direct payment to the hospital (self-funded). The marketing literature confirms a customer status on patients through its definition of a customer as ‘one who buys a company’s goods or services’ (Zikmund and d’Amico, 2002, p.89). For elective surgery at a private hospital a payment model exists between the patient and the private hospital provider, therefore for the purposes
of this paper patients can be viewed as customers, and the theory of customer expectations can be applied. Conceptually there has been support in the literature for the ZOT and the associated range of expectations with theoretical models being proposed (Santos and Boote, 2003; Johnston, 1994). However, only one model proposes a framework in a health care setting (Conway and Willcocks, 1997).

**Relevant Theory**

Contemporary customer expectations theory, within the services quality literature, is based on a framework developed by Zeithaml, Berry and Parasuraman (1993). This model of customer expectations conceptualises expectations as a range of expectations rather than the one ‘ideal’ level of expectations, as discussed in the early services quality literature. The concept of a range of expectations is important because it provides a basis to examine the range of consequent customer behaviours that exist from delight to satisfaction to dissatisfaction to complaining behaviour (Santos and Boote, 2003; Johnston, 1994).

Zeithaml *et al* (1993) established two distinct levels of expected service; desired and adequate. The ‘desired’ level reflects the level of service customers believe ‘should’ or ‘can be’ provided by the service provider. The ‘adequate’ level is the minimal tolerable level of service the customers are prepared to accept without a change in perception of satisfaction with the service. Zeithaml *et al* (1993) also proposed a ZOT, bordered by the desired level of service at the top and the adequate or minimum tolerable service level at the bottom, as a concept that represents the range of service performance that customers would consider satisfactory, and are prepared to accept (see Figure 1). The wider the ZOT the more tolerant the customer is to variation in the level of service and the narrower the ZOT the less tolerant the customer is to variation in service. The ZOT model depicts that a level of service, as experienced by the customer, falling within the range of expectations will result in satisfaction; if perceived service is above the desired level delight will be experienced, and if it is below the adequate level dissatisfaction and associated complaining behaviours will result (Parasuraman, 2004; Wirtz and Mattila, 2001).

**Figure 1: Range Of Customer Expectations**

<table>
<thead>
<tr>
<th>Desired Service</th>
<th>Adequate Service</th>
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<tr>
<td>Service level customers believe ‘should’ / ‘can be’ provided</td>
<td>Minimum tolerable level customer prepared to accept</td>
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**Variations of the Zone of Tolerance (ZOT)**

The ZOT is not static. Zeithaml *et al* (1993) postulated that the width of the ZOT varies from person to person, can expand and contract within the same person and that the change in width is primarily due to changes in the level of adequate service. The desired service level remains relatively stable, while the adequate service level moves up or down, thereby narrowing or widening the ZOT.
Parasuraman et al (1991) also postulated that the width of the ZOT varies for each of the five different service dimensions of; reliability; responsiveness; assurance; empathy and tangibles with the ZOT for service reliability being narrower than the other dimensions. This finding was supported by Walker and Baker (2000), in a study of customer expectations in health clubs, and found that the ZOT is narrower for the essential service dimensions of assurance and reliability than for the less-essential dimensions of tangibles.

**Determinants of the Zone Of Tolerance (ZOT)**

Importantly, Zeithaml et al (1993) provided in their framework of customer expectations an understanding of the source of customer expectations and various influencing factors have been conceptualised as determinants of the desired service level and adequate service level of expectations, as shown in Figure 2. Due to the primary influence of the adequate service level in altering the width of the ZOT, examination of the determinants of adequate service expectations are of particular interest to the authors.

**Figure 2: Determinants of Customer Expectations**

Zeithaml et al (1993) found five factors that determined the customer’s expectation level of adequate service; transitory service intensifiers; perceived service alternatives; customer self-perceived roles; situational factors; and predicted service. Of interest to the authors are two of the determinants, situational factors and predicted service. Situational factors are those perceived by customers as beyond the control of the service provider, temporarily lowering the adequate service level and widening the ZOT. There are a number of examples in a hospital setting where the patient may feel factors are beyond the providers control such as a shortage of nurses or emergency situations causing delay in operating times or doctor visits.

The level of predicted service, which is the level of service customers believe they are likely to get, also acts as an influence on the adequate level of expectations. If customers predict low levels of service their adequate service level lowers and the ZOT widens; the higher the level of predicted service the higher the adequate service level and correspondingly the narrower the ZOT. As proposed by Zeithaml et al (1993) predicted service levels are
influenced by implicit and explicit service promises; enduring service intensifiers; personal needs; word of mouth and past experiences. The general public are more aware of service industry performance levels and elective surgery features on television programs, health fund advertisements and celebrity interviews. Predicted service levels for surgery are not only being moulded by the media but by the private health fund. High levels of service expectations accompany the considerable financial outlay, experienced by most families and individuals, who contribute to private health insurance.

Although many studies have looked at measurements of expectations and perceived quality few have measured expectations in terms of both the desired level and the adequate level. Surprisingly, the ZOT and expectations of adequate service level is relatively unexplored, particularly so in the health services field. Three studies that have empirically examined the ZOT have been in the services relating to health clubs (Walker and Baker, 2000); hotels (Nadiri and Hussain, 2005); and call centres (Dean, 2004).

Studies that have used expectations in hospital-based research (Sohail, 2003; Lim and Tang, 2000; Mangold and Babakus, 1991) have only used the desired level of expectations in the context of service quality and the level of satisfaction with that dimension, often providing a guide for the areas that need improvement within the hospital service. This is not the same thing as measuring the ZOT and does not provide the level of information for understanding customer expectations, the degree of tolerance patients have regarding the service quality or the determinants of the expectation level of adequate service (Walker and Baker, 2000). These areas remain under investigated in hospitals. Given the nature of hospitals and their likelihood to possess a number of the influencing factors identified by Zeithaml et al (1993) it becomes relevant to address this gap in the customer expectation literature.

Research Hypotheses

The authors postulate that the ZOT moves differently for the five service dimensions of; reliability; tangibles; responsiveness; assurance; and empathy with the dimensions considered most important to the customer to have the narrower ZOT. From this theoretical understanding is derived the first three research hypotheses:

\[ H1. \text{Patients have Zones Of Tolerance which vary for different service quality dimensions} \]
\[ H2. \text{Patients have narrower Zones Of Tolerance for more important dimensions than less important dimensions} \]
\[ H3. \text{Patients level of adequate expectations are higher for important service quality dimensions than for less important service quality dimensions} \]

Additionally, it is proposed that two influencing factors, predicted service and situational factors, which have been drawn from the theoretical determinants of customer expectations of service (Zeithaml et al, 1993) will vary the width of the ZOT. A previous hospital experience; and a payment relationship existing between the patient and the hospital will be used as examples of predicted service factors. The lower the predicted service level the wider the ZOT and the higher the predicted service level the narrower the ZOT. In the case of previous hospital experience, the influence on predicted service level will depend on whether the previous hospital experience was satisfactory or not.
H4a. The Zone Of Tolerance widens for patients that have had a previous hospital experience that was negative
H4b. The Zone Of Tolerance narrows for patients that have had a previous hospital experience that was positive

A payment relationship existing between the patient and the hospital is expected to heighten the predicted service level through implicit and explicit service promises associated with the private health industry reputation. The predicted service is high thereby narrowing the ZOT.

H5. The Zone Of Tolerance narrows for patients that have a payment relationship with the hospital

Finally, the perception that a nursing shortage is outside the control of the hospital provider will act as an example of a situational factor and theoretically widen the ZOT.

H6. The Zone Of Tolerance widens in patients that perceive a nursing shortage is outside the control of the hospital provider

In this research the ZOT, the adequate service level and the desired service level are the dependent variables, with the five service dimensions and the three examples of influencing factors (previous hospital experience; the existence of a payment relationship between the patient and the hospital; and a perceived nursing shortage outside the control of the provider) as independent variables. On this basis, measures of the desired and adequate service levels, the ZOT and the independent variables will be used to examine the customer service expectations and the variability in the ZOT. A survey of pending elective-surgery patients using a SERVQUAL instrument (Parasuraman et al, 1988) contextualised to a private health care provider setting will be used to measure the five service dimensions for desired level of expectations, adequate level of expectations and level of importance. Additional questions related to previous hospital experience; the payment relationship between the patient and the hospital; and the patient’s perception of a nursing shortage, will be used to measure the influencing factors.

Discussion and Conclusions

Research of this nature provides increased understanding into the capacity that exists in patients, as customers of private hospital providers, to tolerate a variation in the services experienced at a private hospital. It will provide valuable information as to those areas of services that may tolerate potential changes if resources are to be rationalised and re-allocated. Other researchers investigating customer expectations and the ZOT have identified potential benefits of future research. Robledo (2001) argues the need to conduct research into the sources of expectations across different service industries and cautions the generalising of findings into other service industries, contending that expectations research should be specific to different market segments where there will be specific service expectations with different sources of expectations. Joseph et al (2005) in their study of expectations in the banking sector also suggest that further research into what determines the parameters of the ZOT would allow restricted resources to be allocated to areas important to customers.
In the health care sector it could be argued that in a time when we are in a ‘health crisis’, where the cost of health and its associated technology is high and there are shortages of skilled labour (doctors and nurses), there is an inability of the provider to provide everything that customers want or ‘desire’ due to the restriction of these resources. Further understanding of the ZOT and the associated expectations of adequate service in the hospital sector would allow appropriate allocation of scarce resources to those areas tolerated by the patient.
References


