

Behavioural Intentions of Patients: Cross sectional study on Military Hospitals in Saudi Arabia

Mohammed Saeed Al Shahrani
University Of Hull Business School
Hull, United Kingdom
E- mail: m.alshahrani@2005.hull.ac.uk

Stephen Swailes
University Of Hull Business School
Hull, United Kingdom
E- mail: s.swailes@hull.ac.uk

ABSTRACT

This paper examines the dimensionality, levels and differences of patients' behavioural intentions as a response to their perceptions of service quality in military hospitals in Riyadh, Saudi Arabia. Randomly selected patients in three hospitals responded to six Likert-type items. Factor analysis identified two dimensions: Favourable Behavioural Intentions and Unfavourable Behavioural Intentions. Generally, patients had high positive intentions and low negative intentions. Differences were found between hospitals. The findings have implication for theory and practical values as an input to health care policy.

Keywords: Health service, quality of health services, behavioural intentions, military hospitals.

1. INTRODUCTION

Healthcare is a global concern, since it is a service needed by everyone irrespective of nationality, residence or place of work. Quality is at the top of customers' demands, and many organizations have been forced to give priority to the development of high quality services. Today's consumers have higher expectations for service quality than ever before. This is the age of consumerism; the consumer dictates what is, and what is not, acceptable or exceptional (Shelton, 2000). Patient perceptions of service quality influences patient satisfaction and, intern, behavioural intentions towards the healthcare institution (Joby, 1992; Cronin and Cronin, et al., 2000). Consequently, leaders and managers in health care organizations, whether in the public or private sectors, are under increasing pressure from top government, negative media presentation, health insurance companies and patients or users to demonstrate that the services they introduce are customer-focused and that continuous performance improvement is being delivered (Shahin, 2002 and Shelton, 2000).

The marketing function in health care is increasingly becoming strategic in nature. The quality of care provided and behavioural intentions of patients are emerging as the core of many marketing strategies in health services as a means to achieve a distinctive competency in ever-more competitive markets (Arasli, et al., 2008; Choi, 2004; Scotti, 2007; Taylor, 1994). This is important in Saudi Arabia, where duplication of health service is a cause of escalating costs (Mufti, 2000) and reforms are planned (MEP,2008). Accordingly, this study investigates the dimensionality, levels and differences of behavioural intentions in military hospitals in Saudi Arabia. It is the first study of its kind to be conducted in military hospitals in Saudi Arabia. Therefore, this study derives its significance from its originality, contribution to theory and practical value as a source of information from which policy implications could be drawn.

2. RESEARCH QUESTIONS

RQ1: What are the salient factors of behavioural intentions in military hospitals in Saudi Arabia?

RQ2: Is there a significant difference between behavioural intentions in military hospitals as perceived by patients?

3. REVIEW OF THE LITERATURE

3.1 INTRODUCTION

In this section the concept of behavioural intentions in general, and as specifically applied to health care, is explored from a theoretical perspective and some empirical evidence is critically analysed. The determinants or dimensions of behavioural intentions are identified.

3.2 DEFINITION OF BEHAVIOURAL INTENTIONS

According to Zeithaml et al., (1996) behavioural intention can be defined as “indicators that signal whether customers will remain with or defect from the company” (Zeithaml et al., 1996, p.33). They indicated that the behavioural intention could be positive or negative; therefore, the concept was split broadly into favourable and unfavourable behavioural intentions. Joby (1992) defined behavioural intention, as a predisposition to future behaviour, as the (behavioural or cognitive) outcome of the (cognitive) evaluation and the (emotional) response to that evaluation. Throughout the literature, many studies indicate that behavioural intentions are outcomes of satisfaction or quality (Dabholkar et al, 2000; Zeithaml et al, 1996).

3.3 IMPORTANCE OF MEASURING BEHAVIOURAL INTENTIONS

Patients and their relatives are often worried, anxious, stressed, frightened and weak, and such feelings are exacerbated by long waits, insufficient information, poor facilities, low responsiveness and low empathy. These feelings can be reduced by improving the quality of services they experience. In fact, not only can they benefit directly by having their desires met but also this will affect their confidence in the future when they need the service (Mullin, 2003). In fact, healthcare is different from other services as its performance affects one's very life and less than perfect performance can lead to disability, discomfort or death. Moreover, Patients who are more satisfied are less likely to sue.

Satisfaction also affects word-of-mouth. A study within the Technology Assistance Research Program conducted by Gallup for the White House indicated that 87% of the people who encounter a problem with an organization will tell 13 other people about the experience; the remaining 13% will spread the story to 20 or more others (Press, 2006). In fact, when a patient complains, he is, at the outset saying, in effect “help. I want this relationship to continue, but I need you to help me” (Baker, 1998). Baker argued that patients who complain are actually more loyal than those who are dissatisfied but say nothing. A complainant is a ‘gem’, indeed as described by Ossel et al., 2003, p.139) as it provides an opportunity for learning and continuous improvement. They added, complaining and not satisfied customers are likely to create twice as much word-of-mouth (in this case bad) advertising as satisfied customers.

3.4 DETERMINANTS (DIMENSIONS) OF BEHAVIOURAL INTENTIONS

Although there is a general agreement that behavioural intentions are multidimensional, there is no consensus on the exact nature of these dimensions. Few studies have attempted to study the behavioural intentions in health care industry. Most of the early research that investigated the behavioural intentions operationalised it in a one-dimensional way, rather than delineating specific types of behavioural intentions as can be seen in Table1.

Table 1 Dimensions of Behavioural Intentions

Author(s)	Dimensions
Cronin and Taylor (1992)	Future repurchases behaviour.
Woodside et al, (1989), Mcalexander et al. (1994) and Joby (1992)	Return to the same hospital in the future.
Reidnbach and Sandifer-Smallwood (1990)	Willingness to recommend the hospital
Fisk et al. (1990), Boulding et al, (1993) and Lin et al. (2004). In Saudi	Repeated use and word of mouth (communication)
Arabia Al Omar (2000)	Back to the hospital and change.
Choi et al (2004)	Willingness to recommend, intention to repurchase and positive word of mouth.
Gonzalez (2007)	Loyalty, switching, paying more and external response
Headly and Miller (1993)	Repurchase, compliment, complain, recommend and not use medical services again
Zeithaml et al. (1996)	Positive and negative (or favourable and unfavourable) Behavioral intentions

4. RESEARCH METHODOLOGY

The research philosophical perspective adopted in this study is the positivist paradigm. Data was collected using a structured questionnaire which was distributed to a sample of the patient population in three leading military hospitals in Saudi Arabia: Riyadh Military hospitals (RMH); Security Force Hospital (SFH) and National Guard Hospital (NGH).

4.1 QUESTIONNAIRE DESIGN AND DATA COLLECTION PROCESS

Based on literature review, key variables were identified that can be measured in order to evaluate the level of behavioural intentions in a healthcare environment. Table 2 shows the 6 items included in the scale, based on the literature. An item about payment for services, which is normally included in similar studies, was excluded as the health services in Saudi Arabia are free and available for all citizens.

Table2 Initial items list for the Behavioural Intentions construct

1 I intend to say positive things about this hospital to other people (family, friends etc.)
2. I will recommend this hospital to someone who seeks my advice.
3. This hospital will be my first choice if I need the health service in the future.
4. I intend to switch to another hospital.
5. I will register a complaint to the hospital staff.
6. I will report a complaint against the hospital to an official agency.

Patients' feelings towards the 6 items were measured using a Likert type scale where 1 = strongly disagree and 5 = strongly agree.

4.2 SAMPLING AND QUESTIONNAIRE ADMINISTRATION

Given the differences in the sizes of the hospitals, stratified random sampling was used to select the respondents. There were 2438 patients in total, comprising 1000 for RMH, 500 for SFH and 938 for NGH. Based on Krejcie and Morgan's table (1970), with a margin of error of 5%, the sample size for patients would be 335. Based on this, the initial sample sizes were 137 for RMH, 69 for SFH and 129 for NGH. Previous work by Al Omar (2000) in Saudi Arabia cited average response rates for this type of study to be between 70% and 80%. Consequently, an additional 25% was added to this sample, thereby delivering a total of 418 as follows: 171 for RMH, 86 for SFH and 161 for NGH. This sample size was considered to be adequate based on previous recommendations (Hair et al., 2005). The respondents in each stratum (hospital) were selected using random sampling. Patient beds in each hospital were given numbers and a random number generator was used

to select the patients to be sampled. Before the administration of the questionnaires, authority was obtained from the relevant government ministries and ethical committees and further permission obtained at hospital level (including the timing) from the hospital directors and administrators. Out of a total of 418 questionnaires that were distributed, 298 filled questionnaires were returned giving a response rate of 71.2%. 16 questionnaires were classified as unusable, due to incomplete response.

5. RESEARCH FINDINGS

5.1 BASIC DATA

Mean scores ranged from 2.04 to 3.92. Three statements scored above 3.0, reflecting positive behavioural intentions (positive word of mouth, recommending the hospital to others and return to the hospital). The other three scored under 3.0, which reflects negative behavioural intentions (switch to other hospitals and complain to hospital management and complain to external agency). On balance, the mean scores show positive response to issues relating to future behavioural intentions.

5.2 RESEARCH QUESTION ONE (DIMENSIONALITY)

The main statistical technique that was used to explore the scale was factor analysis (principal component analysis with varimax rotation). Table 3 shows the factor loadings. For the factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.751 ($p < 0.001$), which means that the sampling adequacy requirement was satisfied. The Bartlett's Test of Sphericity was also significant ($p < 0.001$), again indicating the appropriateness of the model. The Scree plot showed that most of the variance would be explained by two factors; hence the factor analysis was further developed to produce a two factor solution.

Table 3 Factor Structure of Behavioural Intentions Dimensions

Variables	Components	
	Factor 1	Factor 2
1. Intention to say positive things about this hospital to other people (family, friends etc.)	.90	
2. Recommending this hospital to someone who seeks my advice.	.88	
3. Hospital will be my first choice if I need the health service in the future.	.87	
4. Intention to switch to another hospital		.90
5. Registering a complaint to the hospital staff		.87
6. Reporting a complaint against the hospital to an official agency if they do not resolve my problem		.69
Percentage of Variance Explained by factors	53.3%	23.3%

6 items were loaded on two clear factors

The final two factor/dimensions solution explained 76.6% of the variance which is high and these factors were named as follows:

Factor 1 Favourable Behavioural Intentions: This 3-Item dimension reflects the extent to which patients will behave in a positive way in the future regarding the hospital:

1. Intention to say positive things about this hospital to other people (family, friends etc.)
2. Recommending this hospital to someone who seeks my advice.
3. Hospital will be my first choice if I need the health service in the future.

Factor 2 Unfavourable Behavioural Intentions: This 3-item dimension reflects the extent to which patients will behave in a negative way in the future regarding the hospital service:

4. Intention to switch to another hospital
5. Registering a complaint to the hospital staff
6. Reporting a complaint against the hospital to an official agency if they do not resolve my problem

The reliability tests (Cronbach alpha coefficient) of the two final dimensions were: 0.89 for Favourable Behavioural Intentions, and 0.79 for Unfavourable Behavioural intentions, both of which are good.

5.3 RESEARCH QUESTION TWO (DIFFERENCES BETWEEN HOSPITALS)

Differences in the patients' perceptions of behavioural intentions in the three hospitals were explored with ANOVA (Scheffe test). The data satisfied the important assumptions for ANOVA – (i) metric data (scale was on a range of 1 to 5), and (ii) normality.

Generally, patients intended to be positive about these hospitals. Descriptive data show a mean score of 3.85 (SD = .89), with a range of 1 to 5 and skew of -.139 for Favourable behavioural intentions. One sample t tests (test value = 3) showed this mean score to be significantly larger than the neutral value of 3 ($p < .001$) suggesting that on average, the patients had positive intentions regarding the hospitals' services. On the other hand an average score of 2.31 (SD = 1.03) and skew .80 for Unfavourable behavioural intentions showed that patients had low negative intentions regarding the hospital services. Comparisons between the three hospitals showed that RMH performed worse than NGH ($p = .023$) with regard to Favourable behavioural intentions, while no differences were found between the SFH vs NGH or SFH vs RHM (see Table 4).

Table 4 Comparisons between hospitals based on behavioural intentions

Dependent Variable	(I) Hospital	(J) Hospital	Mean Difference (I-J)	Sig.
Positive Consequences	RMH	SFH	-.09989	.737
		NGH	-.23616	.227
	NGH	RMH	.33605(*)	.023
Negative Consequences	RMH	SFH	.11659	.735
		NGH	.08835	.857
	NGH	RMH	-.20494	.351

In other words, patients in NGH were more positive in their intentions than patients of RMH. Therefore we could infer that on balance at hospital level, NGH performs best, followed by SFH and the least well perceived is RMH. Overall, there is very strong evidence to suggest that in all the hospitals, patients had positive behavioural intentions and did not intend to switch, complain or report the hospital to external agencies.

6. CONCLUSION AND IMPLICATION

The first research question set out to investigate dimensionality of patients' behavioural intentions dimensionality. The original six items used in this study formed two clear dimensions, which together explained 76.6% of variance, which is very valuable. In this study, in line with Zeithaml et al. (1996) the loading supported the dichotomy between favourable and unfavourable categories of behavioural intentions. The reliability of these dimensions measured by Cronbach Alpha (.89 and .79 for favourable and unfavourable respectively) is very closely similar to those obtained by Zeithaml et al. (1996) and Gonzalez (2007). Therefore it can be argued that this study's findings support those of Zeithaml and Gonzales, and the three together suggest that a measure that captured two expected outcomes (favourable and unfavourable) is likely to produce a better understanding of behavioural intentions than single-item and one dimensional measures.

The second research question set out to identify the level of behavioural intentions and any differences found between the military hospitals, based on the factors found in the factor analysis results. There was very strong evidence that patients had favourable behavioural intentions (positive word of mouth, recommending the hospital and return) and few unfavourable behavioural intentions (unlikely to switch, complain or report the hospital to external agencies). The only difference found was between NGH and RMH, where patients in NGH were significantly more likely to be positive in their behaviour than patients of RMH. On balance, at hospital level, NGH performs best, followed by SFH and the least well perceived is RMH.

In conclusion, although empirical evidence in this study confirmed that patients were likely to have more positive than negative perceptions and intentions after their experiences in these hospitals, many factors could affect patients to prevent unfavourable behavioural intentions. First, the Saudi Arabian government is about to implement health insurance for Saudis but still patients have no choice to switch to other hospitals,

especially as there are few distinguished hospitals that provide advanced health services in all fields. Second, not all the population have the financial ability to pay for health services from their own pockets, with the high inflations in most goods and services. Third, there may be some cultural reasons behind the reluctance of Saudi society to complain, as complaining culture is almost absent at both political and social levels. In health care, in particular, patients may avoid conflict with hospital staff or management, either because they think it will achieve nothing or because they fear a bad reaction from them. The Saudi health system is free of charge; people do not even pay tax as in other countries, which could weaken patients' sense of right to raise their voices and cause them to remain inactive, on the other hand and be a reason for hospital management and staff to make the minimum effort and not be concerned about patients' behavioural intentions.

However, like most research, this study has some limitations. The study was limited to patients of military hospitals. Future studies could include other hospitals and compare the behavioural intentions between military and other governmental or private hospitals.

7. REFERENCE

- Al Omar, B. (2000) 'Patients' expectations, satisfaction and Future Behaviour in Hospitals in Saudi Arabia', *Saudi Medical Journal*, 21(7): 655-665.
- Arasli, H., Ekiz, E.H, and Katircioblu, S.T. (2008) 'Creating service quality into public and private hospitals in small islands: empirical evidence from Cyprus', *International Journal of Health Care Quality Assurance*, Vol.21, No.1, pp.8-23.
- Baker, S.K. (1998) *Managing Patient Expectations: The Art of Finding and Keeping Loyal Patients*, San Francisco: John Wiley and Sons, Inc.
- Boulding, W. and Kalra A. (1993) 'A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions', *Journal of Marketing Research*, 30 (2): 7-27.
- Choi, K.S., Cho, W.H., Lee, H., Lee, S. and Kim, C. (2004) 'The relationships among quality, value, satisfaction and behavioural intention in health care provider choice: A South Korean study', *Journal of Business Research*, Vol.57, pp.913-921.
- Cronin, J.J. and Taylor, S.A. (1992) 'Measuring service quality: A Re-examination and Extension', *Journal of Marketing*, 57: 913-921.
- Cronin, JR. J.J., Brady, M.K. and Hult, G.T.M. (2000) 'Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioural Intentions in Service Environments', *Journal of Retailing*, Vol.76, No.2, pp.193-218.
- Dabholkar, P.A., Shepherd, C.D. and Thorpe, D.I. (2000) 'A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues through a Longitudinal Study', *Journal of Retailing*, 76 (2): 139-173.
- Gonzalez, M.E.A., Comesana, L.R. and Brea, J.A.F. (2007) 'Assessing Tourist behavioural intentions through perceived service quality and customer satisfaction', *Journal of Business Research*, 60 (2): 153-160.
- Hair, J.F. Anderson, R E, Tatham, R. L. and Black, W C. (2005) *Multivariate Data Analysis*, 6th Edition: Upper Saddle River, Prentice Hall.
- Joby, J. (1992) 'Research in Brief: Patient Satisfaction: The Impact of Past Experience', *Journal of Health Care Marketing*, 12 (3): 56-64.
- Krejcie, R. V., & Morgan, D. W. (1970) 'Determining sample size for research activities', *Educational and Psychological Measurement*, 30: 607-608.
- Lin, H., Xirasagar, S. and Laditka, J.N. (2004) 'Patient perceptions of service quality in group versus solo practice clinics', *International Journal for Quality in Health Care*, 16 (6): 437-445.
- McAlexander, J.H., Kaldenberg, D.O. and Koenig, H.F. (1994) 'Service Quality Measurement: Examination of dental practices sheds more light on the relationships between service quality, satisfaction, and purchase intentions in health care setting', *Journal of Health Care Marketing*, 14 (3): 34-40.
- Moullin, M. (2003) *Delivering Excellence in Health and Social Care*, Oxford: Marston Book Services Limited.

- Mufti, M.H. (2000) *Healthcare Development Strategies in the Kingdom of Saudi Arabia*, London: Kluwer Academic/ Plenum Publishers.
- Ossel, G.V., Stremersch, S. and Gemmel, P. (2003) 'Customer satisfaction and complaint management', in Looy, P., Gemmel, and R.V. Diesrdonck (Eds.) *Service Management: An Integrated Approach*, 2nd edition, London: Prentice Hall.
- Press, R. (2006) *Patient Satisfaction: Understanding and Managing the Experience of Care*, 2nd edition, Chicago: Health Administration Press.
- Reidenbach, R. and Sandifer-Smallwood, B. (1990) 'Exploring Perceptions of Hospital Operations by a Modified SERVQUAL Approach', *Journal of Health Care Marketing*, 10 (12): 47-55.
- Scotti, D.J., Harmon, J., Behson, S.J. and Messina, D.J. (2007) 'Links among High- Performance Work Environment, Service Quality, and Customer Satisfaction: An Extension to the Health Care Sector/ Practitioner Applications', *Journal of Health Management*, 52 (2): 109-117.
- Shahin, A. (2002) *SERVQUAL and Model of Service Quality Gap: A Framework for Determining and Prioritizing Critical Factors in Developing Quality Services*. Department of Management, University of Isfahan: Iran
- Shelton, P.J. (2000) *Measuring and Improving Patient Satisfaction*, Gaithersburg, Maryland: Aspen Publishers, Inc.
- Taylor, S.A. (1994) 'Distinguishing Service Quality from Patient Satisfaction in Developing Health Care Marketing Strategies', *Hospital and Health Services Administration*, 39 (2): 321-236.
- Zeithaml, V.A., Berry, L.L., and Parasuraman, A. (1996) 'The Behavioural Consequences of Service Quality', *Journal of Marketing*, 60 (2): 31-46