

# Perceptual Analysis of Patient Satisfaction from Health Services Provided in North Cyprus: A Case Study of Private Hospitals

Zafer Ağdelen

Girne American University, Industrial Engineering Department  
E-mail: [zagdelen@gau.edu.tr](mailto:zagdelen@gau.edu.tr)

Burcu Toker

Girne American University, Industrial Engineering Department  
E-mail: [burcutoker@gau.edu.tr](mailto:burcutoker@gau.edu.tr)

**Abstract** - Patient Satisfaction is an important determinant for planning and improvement of public health services. Recently, in TRNC the concept of patient satisfaction gained great importance. As patients are complaining about the health system of TRNC, Ministry of Health is seeking for changes and solutions which will lead to a strong, satisfactory and sustainable health system. The aim of this study is to, measure, analyze and evaluate patient satisfaction from private health services in the Turkish Republic of Northern Cyprus. The evaluation of the results are planned to provide a scientific basis for the operations of the Ministry of Health and related public health service authorities for the general improvement of the private health system of TRNC. For collection of data about the patients' perceptions, a questionnaire consisting of two main parts is prepared and applied in 2014. Based on these facts, a set of suggestions are made on the improvement of health services for the purpose of increasing hospital performance.

**Keywords** – North Cyprus, Private Health Services, Perceptual Analysis, Statistics

## 1. INTRODUCTION

In recent years, awareness has risen of how patients perceive the quality of their care. In an extremely competitive environment, patient satisfaction has become a tool to gain attention and value amongst the patients as well as providers. Hospitals and other health care centers are increasingly using this information while making important decisions regarding the operational and treatment plans. The health centers can use survey results to design and track quality improvement over time, as well as compare themselves to other health centers. Also, this information is of great use for healthcare accreditations. By conducting their own surveys, the health care organizations are able to recognize and resolve potential patient

satisfaction problems and thus improve their strategies. Having satisfaction surveys also helps identify the specific needs of the patients for the health care provider.

Recently, in the Turkish Republic of Northern Cyprus (TRNC), the concept of patient satisfaction also gained great importance. Patients are complaining about the health system of TRNC and the Ministry of Health is seeking for changes and solutions which will lead to a strong, satisfactory and sustainable health system.

The health system of Turkish Republic of Northern Cyprus is based on governmental hospitals on non-profit basis and on private hospitals on profit basis. Although the majority of the community prefers to have treatment in government hospitals, due to the existence of several problems related with functioning and performance of public hospitals, such as lack of patient satisfaction, long waiting time for treatment and dissatisfaction of doctors, patients tend to receive services from private hospitals.

In this paper, it is aimed to focus on the perceptual analysis of patients' satisfaction from private health services, which will enlighten the patient component of this system.

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Corresponding Author  
Zafer Ağdelen  
Girne American University, Industrial  
Engineering Department  
[zagdelen@gau.edu.tr](mailto:zagdelen@gau.edu.tr)

This will provide a scientific basis for the operations of the Ministry of Health for the general improvement of the private health system of Turkish Republic of Northern Cyprus.

After extensive literature review, to collect data about the patients' perceptions, a questionnaire consisting of two main parts is prepared. The first part includes demographic questions such as; age, gender, level of income, etc. Second part includes perceptual questions aiming to measure the level of satisfaction of the patients regarding the quality of services given by private hospitals. These questions are rated by the patients according to 6 Likert-Type scale, 1-showing absolute dissatisfaction and 6- showing highest satisfaction levels. The questionnaire is given to 170 patients who received services from private hospitals and after the evaluation, 5 questionnaires are discarded due to missing data and 165 questionnaires are used for analysis.

## 2. STATISTICAL EVALUATION

### 2.1 Demographic Evaluation

Findings regarding some demographical factors are shown in tables 1, 2, 3 and 4.

**Table 1.** Distribution of Patients According to Gender

Gender	Frequency(f)	Percentage (%)
Female	95	57.58
Male	70	42.42
Total	165	100

As shown in Table 1 57.58% of the patients who responded to the questionnaire are females.

**Table 2.** Income Levels of Patients

Income (TL)	Frequency(f)	Percentage (%)
Less than 1700	32	19.39
1701-2000	104	63.03
2001-3000	14	8.49
3001-4000	10	6.06
4001 and above	5	3.03
Total	165	100

Table 2 represents the income level of the respondents. Majority of the patients have an income level less than 2000 TL.

**Table 3.** Education Levels of Patients

Education (Graduation)	Frequency(f)	Percentage (%)
Elementary School	-	-
Middle School	3	1.81
High School	25	15.16
University	116	70.31
Master	12	7.27
PhD and above	9	5.45
Total	165	100

Table 3 shows that about 70% of the respondents are university graduate.

**Table 4.** Age Distribution of Patients

Age	Frequency(f)	Percentage (%)
Less than 20	5	3.03
20-29	14	8.49
30-39	32	19.39
40-49	28	16.97
50-59	81	49.09
60 and above	5	3.03
Total	165	100

As shown in Table 4, more than 50% of the patients are above 40 years old.

### 2.2 Satisfaction Level Evaluation and Ranking

Table 5 shows mean satisfaction level of patients regarding quality of services they receive from private hospitals and the ranking of the mean values. Means are ranked from 1 to 22, where 1 shows the highest mean value of satisfaction and 22 shows the lowest mean value of satisfaction.

**Table 5.** Mean Satisfaction Level of Patients Regarding Quality of Services they Receive from Private Hospitals

Question Subject to Assessment	Mean	Rank
Doctors' respect and politeness	4.46	1
Doctor Controls	4.27	10
Ease of meeting doctors	4.31	6
Doctors' level of informing patients	4.26	11
Trust to doctors	4.25	12
Nurses' respect and politeness	4.43	2
Nurses' behaviour and respect	4.36	4
Ease of meeting nurses	4.30	7
Nurses' level of informing patients	4.21	13
Trust to nurses	4.39	3
Heating and cooling of the hospital	3.81	22
General cleaning of hospital	3.81	22
Quality of food served in the hospital	3.81	22
Hospital visiting periods	3.98	20
Opportunities of comfort for patient relatives	4.02	19
Sufficiency of medical equipment and medicine	4.18	14
Waiting time in the polyclinics	3.90	21
Services given by laboratories and other test centers	4.03	18
Behaviour of personnel (excluding doctors and nurses)	4.06	16
Emergency Services	4.28	9
Ambulatory Services	4.29	8
Trust to the accuracy of tests	4.32	5
Signage in the hospital	4.25	12
Service quality of doctors in general	4.18	14
Service quality of nurses in general	4.07	15
Other health personnel's service quality in general	4.05	17

According to the results of the analysis of mean satisfaction levels, it is observed that, for all the satisfaction questions, mean level of satisfaction is above 3.5. The highest 3 ranks of level of satisfaction is observed for; “Doctors’ respect and politeness”, “Nurses’ respect and politeness” and “Trust to nurses”, respectively. The lowest 3 ranks of level of satisfaction is observed for; “Heating and cooling of the hospital”, “General cleaning of hospital”, and “Quality of food served in the hospital”.

### 2.3. Regression Analysis Results

In order to analyze the relationship between quality of services received from private hospitals and general patient satisfaction, multiple regression analysis is applied.

As a result of the analysis, it is observed that quality of the services has a positive relationship with general patient satisfaction (R=0.900). Table 6 and Table 7 show the detailed results of regression analysis.

**Table 6.** Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900 <sup>a</sup>	.811	.743	.5485

a. Predictors: (Constant), S26T, S14T, S3T, S23T, S9T, S20T, S17T, S24T, S6T, S8T, S10T, S16T, S13T, S7T, S22T, S15T, S19T, S12T, S5T, S25T, S18T, S1T, S21T, S11T, S4T, S2T

**Table 7.** Regression Analysis Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.495	.350		-1.415	.161
	S1T	5.477E-02	.113	.053	.484	.629
	S2T	-2.73E-02	.113	-.028	-.242	.809
	S3T	6.067E-02	.101	.061	.601	.549
	S4T	.239	.100	.252	2.383	.020
	S5T	6.259E-02	.093	.070	.673	.503
	S6T	-5.12E-04	.085	-.001	-.006	.995
	S7T	3.273E-02	.092	.031	.354	.724
	S8T	.122	.082	.126	1.489	.141
	S9T	1.372E-02	.081	.015	.169	.867
	S10T	-.114	.079	-.116	-1.432	.156
	S11T	.252	.079	.329	3.184	.002
	S12T	.175	.076	.231	2.306	.024
	S13T	-.185	.073	-.224	-2.534	.013
	S14T	.169	.079	.196	2.135	.036
	S15T	-4.89E-02	.076	-.060	-.644	.522
	S16T	.120	.076	.136	1.587	.117
	S17T	-.199	.064	-.274	-3.116	.003
	S18T	5.169E-02	.083	.060	.620	.537
	S19T	2.856E-02	.091	.030	.313	.755
	S20T	-.115	.083	-.122	-1.385	.170
	S21T	7.449E-03	.089	.008	.084	.933
	S22T	4.182E-03	.098	.004	.043	.966
	S23T	.252	.079	.266	3.190	.002
	S24T	9.520E-02	.089	.095	1.065	.291
	S25T	-8.46E-02	.093	-.090	-.908	.367
	S26T	.110	.083	.117	1.328	.188

a. Dependent Variable: S27HIZ

### 3. RESULTS AND CONCLUSION

During the recent years, the number of private hospitals in North Cyprus has increased considerably. As a result of this increase, there is competition between public and private health service providers. This competition, forces the health service providers to serve patients better, to have competitive advantage. Patients’ satisfaction with provided healthcare services is one of the factors to measure the overall quality of the delivered health care (Lazarevik and Kasapinov, 2015). With the growing need to improve the quality of care, it is of paramount importance for the health care providers, insurance companies and health authorities to better define and measure quality of health care (Morris and

Sethi, 2013). Measurement of patient’s experiences with their use of health care services is an essential component of health services evaluation (Garratt et al., 2008).

Two main tracks of patients’ satisfaction may be distinguished: patients’ satisfaction with the health care services received, and users’ satisfaction with overall health care system (Bleich et al.,2009). Satisfied patients are more adherent to physician recommendations and more loyal to physicians (Kravitz et al., 2005). A satisfied patient is more likely to develop a longer lasting relationship with their medical provider, leading to improved compliance, continuity of care, and ultimately better health outcomes (Margolis et al.,2003). On the other hand, patients often request discretionary services that are of little or no medical benefit, and physicians frequently accede to these requests, which is associated with higher patient satisfaction (Fenton et al.2012). Lower patients’ satisfaction within the health services increases the probability patients to look for health care services abroad.

Many studies revealed that, there is a direct positive relationship between health service quality and patient satisfaction (Bendall Powers,2004; Choi et al.,2004, De Man et al., 2002; Fisk et al., 1990; Otani, 2004; Reidenbach and Sandifer, 1990; Woodside et al, 1989). In this study, data are obtained from patients, who received health services from private sector, by applying face-to-face questionnaires. For private health service providers, the relationship between health service quality and patient satisfaction is a vital source of information. By the help of this information, private hospitals can prepare their strategic plans and methods for better quality of services.

Regression analysis results showed that patient satisfaction is directly related to the quality of the health services. This result is very important for private health service providers for the improvement of their services. This way, the efficiency of investment could be increased by minimizing costs and maximizing the level of patient satisfaction.

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