SERVICE QUALITY AND CUSTOMER SATISFACTION IN THE HEALTH CARE INDUSTRY - TOWARDS HEALTH TOURISM MARKET

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Abstract
The purpose – Service quality and customer satisfaction have been extensively researched in the profit sector, but are also important in the non-profit sector. Specialty hospitals and health spas operate in the non-profit sector in Croatia, but some of them try to provide a part of their services to the health tourism market. Hospitals that work in the non-profit sector and especially those that see their future in the health tourism market need to pay attention to service quality and customer satisfaction. Although specialty hospitals are a vital segment of the Croatian health system, there has not been enough research regarding service quality and customer satisfaction measurement in that sector. Therefore, the purpose of this study is to assess the impact of service quality on customer satisfaction in the healthcare sector.
Design/methodology – Empirical research is used to determine patients' perceptions and expectations of service quality in one specialty hospital for medical rehabilitation. SERVQUAL instrument was used to measure the service quality. The SERVQUAL questionnaire included an expectations and perceptions section, each consisting of 34 statements. In addition, the questionnaire contained an extra section relating to demographics and an overall question on the impression of quality of the service provided. One hundred and four (104) satisfactorily completed questionnaires were collected.
Findings – The analysis revealed that patients perceived a rather satisfactory level of health care quality across all SERVQUAL dimensions. Patients who perceived a higher level of service quality show greater satisfaction with the services, as well as a higher level of loyalty to the hospital which provides medical services. Research results indicate the multidimensionality of the concept and the existence of a gap between patients' expectations and the perceptions of service quality. Finally, despite the criticism of the SERVQUAL instrument, this study confirms the usefulness of the SERVQUAL model in terms of its reliability and validity for measuring quality in the health care sector.
Originality of the research – This paper sheds light on a poorly researched field in the Croatian context. The specific environment in which the research was done demanded the implementation of a modified SERVQUAL model which was broadened with the items referring to sports, recreation and amusement activities. Theoretical contribution of this paper is reflected in testing the dimensionality and reliability of the modified SERVQUAL instrument for measuring service quality in a specialty hospital. It was found that the modified model has four dimensions. The 'Output quality' dimension, which refers to the services outside the sphere of medical services, has the greatest impact on the patients' satisfaction. The practical contribution of the paper is manifested as an encouragement for managers in specialty hospitals to devote greater attention to service quality and customer satisfaction measurement, especially when their goal is to enter the health tourism market. It provides directions for hospital managers to develop strategies which will meet patients' expectations of service quality and increase their competitiveness in the health tourism market.
Keywords service quality, customer satisfaction, SERVQUAL, health care industry, health tourism

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INTRODUCTION

For a long time, service quality and customer satisfaction have been in the spotlight of scientists as well as marketing professionals who are aware of their importance to the survival and success of a company in the market. The belief is that to gain competitive advantage it is necessary to take into account the quality of services which, in comparison with products, possess certain specific characteristics. In addition to the profit sector, customer orientation is increasingly being applied in the healthcare industry.

Until recently, Croatian healthcare organizations operated almost exclusively within the non-profit sector. In such circumstances, the marketing concept that focuses on the needs of clients was not applied. In the wave of privatization at the beginning of the 1990s, clinics in private ownership were established. With the purpose of creating a competitive advantage, they implemented market orientation and started to offer their services in accordance with clients' needs (e.g., shorter waiting time for a service, working hours suited to the needs of patients, etc.). However, specialty hospitals and spas operate under strict conditions. These institutions provide services of medical rehabilitation and are part of the non-profit sector. Legal restrictions in the past decades prevented their participation in health tourism, despite the fact that the beginnings of health tourism in Croatia were related to the activities of health spas, sanatoriums, hospitals, and other healthcare institutions. Recently, there have been modest steps that have allowed health spas and specialty hospitals to engage in health tourism. In order to participate in the health tourism market, health spas and specialty hospitals should adopt a new business philosophy. This imposes the necessity of implementing customer orientation and paying more attention to service quality and customer satisfaction.

Studies of service quality and customer satisfaction are common in the marketing literature. In the last decades, these concepts have gained increasing attention in the healthcare industry as well (Lee et al. 2000; Choi et al. 2004; Lee et al. 2012; Lei & Jolibert 2012; Ma & Zhu 2012; Akter et al. 2013; Purcărea et al. 2013). So far, in Croatia there has not been enough research on service quality and customer satisfaction in the healthcare sector. Only a few studies have been carried out (Verner, 2005, Ozretić Došen et al. 2010) while no research has been conducted in the field of specialty hospitals. Therefore, it is considered appropriate to carry out this pilot study.

The purpose of this study is to assess the impact of service quality on customer satisfaction in the healthcare sector, in the case of one specialty hospital for medical rehabilitation. The main research objectives of this study are: (a) to determine patients' expectations regarding service quality at the hospital; (b) to assess patients' perceptions of the service quality; (c) to establish the gap between expected and perceived service

quality; (d) to determine the relationship between service quality dimensions and overall customer satisfaction in the case of specialty hospital; and (e) to assess the impact of overall customer satisfaction on customer loyalty in the healthcare context.

The paper is organized in five sections. The following section is an overview of the literature dealing with concepts and measurement of service quality and customer satisfaction focusing on the healthcare sector. The next section lays out the methodology and is followed by results of the research. The last section discusses main conclusions and implications.

1. THEORETICAL BACKGROUND

1.1. Service quality and customer satisfaction: Concept and measurement

Service quality is a concept described as elusive and abstract by the researchers A. Parasuraman, V. Zeithaml and L. L. Berry in 1985. Reflecting this understanding they developed a conceptual model of service quality that includes the following dimensions: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and tangibles. This hypothetical model analyses service quality as a construct that is similar to a viewpoint that results from a comparison between consumers' service expectations and insights of the performance they have received on those dimensions.

Service quality has been defined by various researchers in diverse ways. For example, Bitner, Booms and Mohr (1994) define service quality as "the consumer's overall impression of the relative inferiority/superiority of the organization and its services". While Cronin and Taylor (1994) view service quality as a form of attitude representing a long-run overall evaluation, Parasuraman et al. (1985) define service quality as a "function of the differences between expectations and performance along the quality dimensions". This has appeared to be consistent with Roest and Pieters' (1997) definition that service quality is a relativistic and cognitive discrepancy between experience-based norms and performances concerning service benefits.

According to many authors customer satisfaction is a short-term, transaction-specific measure, whereas service quality is an attitude formed by long-term, overall evaluation of performance (Hoffman & Bateson, 1997). Without a doubt, the two concepts of customer satisfaction and service quality are intertwined (Cronin and Taylor, 1992). Some believe that customer satisfaction leads to perceived service quality, while others believe that service quality leads to customer satisfaction. In addition, the relationship between customer satisfaction and service quality and the way these two concepts relate to purchasing behaviour remains largely unexplained. The foundation for true loyalty lies in customer satisfaction, for which service quality is a key input. Highly satisfied or even delighted customers are more likely to become loyal apostles of a firm, consolidate their buying with one suppler, and spread positive word of mouth. Dissatisfaction, in contrast, drives customers away and is a key factor in switching behaviour (Lovelock & Wirtz 2007, 371).

Customer satisfaction and service quality research is dominated by SERVQUAL, which suggests that service quality is fundamentally a gap between customer expectations regarding a service provider's general class and their estimation of its actual performance (Cronin and Taylor, 1992; Parasuraman et al., 1991). The SERVQUAL approach is considered a major departure from the traditional way of using perception-based measure as a customer satisfaction predictor. Instead of using perception, SERVQUAL suggests using expectation/perception – the service quality gap – as an enduring perception that predicts customer satisfaction with a service provider (Babakus and Mangold, 1992; Parasuraman et al., 1991). The relationship between service quality and customer satisfaction is somewhat reciprocal. Previous research on the relationship can be divided into two schools: one argues a satisfied customer with good perception about service quality, and considers customer satisfaction as an service quality antecedent (Bolton and Drew, 1991), while the other suggests that service quality leads to customer satisfaction, and sees service quality as a customer satisfaction antecedent (Antreas and Opoulos, 2003; Cronin and Taylor, 1992; Spreng and MacKoy, 1996). Nevertheless, both schools agree there is a strong correlation between customer satisfaction and service quality. Generally, SERVQUAL is considered to be a robust scale for measuring service quality across service sectors. To measure a particular industry's service quality, one should carefully evaluate and modify the scale items to cater to the industry specific needs (Ramsaran-Fowdar, 2005).

1.2. Service quality and customer satisfaction in the healthcare industry

In the last decades the concepts of service quality and customer satisfaction have also received increasing attention in the healthcare industry. However, because the healthcare industry has its own specific traits, its attitude towards clients and service quality differs somewhat to the attitude in other industries. In addition to certain specific circumstances determined by the healthcare system in which organizations operate in different countries, differences are evident in terms of healthcare products and healthcare consumers. First of all, the products and services that make up the healthcare products are unique and patients perceive them as a complex mix of services (Thomas 2011, 22). Therefore, it is difficult to define and measure their quality. They are characterized by a lack of substitution, and healthcare organizations often provide only one type of service for a particular need. A big difference compared with other sectors is evident in defining the consumer. At the broadest level, all people represent a potential market for healthcare products. Sooner or later everyone will need a particular medical service or product. However, until recently it was considered that the consumers of health services were only sick people but after the 1990s "the emphasis shifted from sick people to well people" (Thomas, 2011, 15). Motives that encourage people to address healthcare institutions are diagnosis, prevention and treatment of disease, but also a desire to enhance well-being or quality of life. The new generation of healthcare consumers, such as patients, family of patients and potential consumers, demands improved quality of service, increased satisfaction, medical error reduction, and prevention of diseases (Lee et al. 2012). Therefore, in the present circumstances, more attention should be paid to service quality and customer satisfaction.

Quality in health care can be understood as technical or outcome quality and functional or process quality (Grönross 1984). While technical quality primarily focuses on what consumers actually receive from the service, functional quality is focused on the process of service delivery. Thus, technical or clinical quality is considered as the accuracy of diagnoses and procedures according to the professionals' specifications (Lam 1997), and functional quality as the way in which the service is delivered to the patient. However, Hillestad and Berkowitz point out that in health care, quality is not defined in terms of clinical quality, but rather in terms of service-delivery quality (Hillestad and Berkowitz 2013, 203). Therefore, a hospital should not focus only on clinical quality. Clinical quality is expected. In fact, who would come to the hospital in which one doesn't expect excellent medical care and in whose physicians one doesn't trust? Instead, special attention should be paid to delivering service quality. That means that in addition to providing excellent medical care, attention should be given to ensuring the appropriate communication between staff and patients (Ozretić Došen et al. 2010), or, in general, to the relationship with patients. Since there is consensus among scientists that the evaluation of service quality is based on the subjective judgment, it is considered as appropriate to define service quality as the difference between customer expectations of service and perceived service. Thus, from the patient's perspective, service quality includes perceptions of medical care, but also such seemingly peripheral concerns as physical facilities, and interactions with both medical and paramedical staff.

The quality of health services is often measured by the widely accepted SERVQUAL model (Babakus and Mangold 1992; Li 1997; Dean 1999; Lee et al. 2000; Bowers & Kiefe 2002; Bakar et al. 2008; Lee & Yom 2007, Ramsaran-Fowdar 2008; Purcărea et al. 2013; Choi et al. 2004; Ozretić Došen et al. 2010; Zaim et al. 2010). Healthcare service quality research, using the SERVQUAL model, brings mixed results. Some have found SERVQUAL a reliable instrument, while others suggest there are certain healthcare service dimensions that are not captured by the SERVQUAL scale (Babakus & Mangold, 1992: Bowers et al., 1994). Therefore, it is important to tailor the SERVQUAL scale to a sector's specific needs, culture or nation. It was suggested that the survey instrument needed to be customized for use in the specific industry to which it was being applied by including additional related questions (Carman, 1990; Babakus and Boller, 1992). Although the scale has been modified and tested in several healthcare environments, most research was conducted in developed western societies. The purpose of our research is to test and report SERVQUAL scale results in the healthcare sector.

2. RESEARCH DESIGN

This pilot study investigates patients' expectations and perceptions in the healthcare industry in the case of one specialty hospital for medical rehabilitation by using an adapted SERVQUAL model. The purpose of this study is to assess the impact of service quality on customer satisfaction in the healthcare sector. For this purpose, the objectives are defined as follows: (a) to determine patients' expectations regarding service quality at the hospital; (b) to assess patients' perceptions of the service quality; (c) to establish the gap between expected and perceived service quality; (d) to

determine the relationship between perceived service quality dimensions and overall customer satisfaction in the case of specialty hospital; and (e) to assess the impact of overall customer satisfaction on customer loyalty in the healthcare context.

The questionnaire was designed to gather empirical data from patients. Customer expectations and perceptions regarding healthcare services in the specialty hospital were examined using a modified SERVQUAL model (Parasuraman et al, 1985, 1988, 1991) for measuring service quality. The research instrument consisted of four parts. The first part of the questionnaire included 34 items relating to the patients' expectations regarding hospital services. The second part consisted of 34 items measuring the perceived healthcare service quality offered in a speciality hospital on a seven-point Likert scale. The basis of the questionnaire represented the SERVQUAL model by Parasuraman, Zeithaml and Berry (1991). Since the study was conducted on the example of a specialty hospital that provides a part of its services in the health tourism market, the research instrument was expanded with additional items based on the work of Marković (2003)[1] and Snoj & Ogorelec (1998)[2] and one new item was added (item number 35). The final version of the questionnaire covered seven dimensions of service quality taking into account previous studies: tangibles (items 1-9), reliability (items 10-13), responsiveness (items 14-17), assurance (items 18-23), empathy (items 24-28), accessibility (items 29-30) and output quality (items 31-34). Respondents evaluated their agreement with statements on a seven-point Likert-type scale ranging from 1 "strongly disagree" to 7 "strongly agree". The third part of the questionnaire comprised overall satisfaction and loyalty scales. Customer overall satisfaction was examined using two statements: "I am satisfied with staying in this hospital" and "The service has exceeded my expectations". Customer loyalty was tested also by two statements: "I will recommend this hospital to my friends" and "If there is a chance, I will stay at this hospital again". Customer satisfaction and loyalty was examined using a seven-point Likert-type scale from 1 "strongly disagree" to 7 "strongly agree". The last part was designed to capture the socio-demographic characteristics of the respondents (gender, age, level of education, occupation, purpose of visit and frequency of coming to the hospital).

The empirical data were collected using a questionnaire on a convenient sample of patients of a speciality hospital for medical rehabilitation. The questionnaires were distributed to the patients upon check-in. Completed questionnaires were collected during check-out from patients who used the medical and accommodation services of the hospital. A total of 300 questionnaires were distributed. Data was collected during July and August of 2013. Of 106 returned questionnaires, two were incomplete and excluded from further analysis. Thus, data analysis is based on a sample of 104 valid questionnaires representing a response rate of 34.67 %. Socio-demographic structure of the sample is shown in Table 1.

[1] Items number 4-7, 21, 23, and 29
[2] Items number 8-9, 22, 28, 30-33

Table 1: **Socio-demographic profile of respondents (N=104)**

Items	*Respondents*	
	Frequency	*Percentage*
Gender		
Male	40	38.5
Female	64	61.5
Age		
16 – 25	1	1.0
26 – 35	12	11.5
36 – 45	13	12.5
46 – 55	14	13.5
56 – 65	31	29,8
66 and more	33	31.7
Occupation		
Employed	34	32.7
Unemployed	10	9.6
Student	3	2.9
Retired	57	54.8
Level of education		
Primary school	14	13.5
Secondary school	53	51.0
Higher education	30	28.8
Others	7	6.7
Purpose of visit		
Medical and health programs	71	68.3
Preventive medicine and *wellness*	10	9.6
Leisure and relaxation	48	46.2
Active vacation	4	3.8
The beauty and attractiveness of the destination	26	25.5
Frequency of coming		
First time	58	55.8
Two or more times	33	31.7
Others	12	11.5
Unknown	1	1.0

Source: Research results

There were more females (61.5%) than males (38.5%), and most of the respondents (61.5%) were older than 56 years and were retired (54.8%). One half of the respondents had finished secondary school, and 28.8% had a university degree. A total of 68.3% of respondents indicated that medical and health programs were the main cause for their visit, while 46% stated leisure and relaxation and 25.5% indicated the beauty and attractiveness of the destination. Fifty-eight respondents (55.8%) stayed at the hospital for the first time.

The data collected were analysed using statistical software SPSS. Analysis was carried out in several steps. First, the structure of the sample was analysed using descriptive statistics. Then, descriptive statistic and paired samples t-test were used to compare

respondents' expectations and perceptions regarding service quality attributes. Further, dimensionality of the modified SERVQUAL perception scale was checked using explorative factor analysis. The internal consistency of the modified scale was assessed by the Cronbach's alpha coefficient. Multiple regression analysis was then conducted to assess the relationships among dimensions of the perceived satisfaction scale and overall patient satisfaction. Finally, in order to examine the relationship between patient satisfaction and loyalty a correlation analysis was performed.

3. RESULTS OF THE RESEARCH

Descriptive statistic was applied to determine patient expectations and perceptions regarding service quality at the hospital. In addition, gap analysis between patient expectations and perceptions of service quality was performed. Results of the analysis are shown in Table 2.

Table 2: **Service quality gap between guests' perceptions and expectations in the specialty hospital**

Number of item	***Item***	***Expected service quality (E)***		***Perceived service quality (E)***		***SERVQUAL gap***	***Paired samples t-test***
		Mean	*SD*	*Mean*	*SD*	*(P – E)*	*t value*
1	Modern-looking equipment	6.23	1.27	6,12	1,31	-0.11	0.811
2	Visually appealing physical facilities	6.19	1.30	6,03	1,32	-0.16	1.037
3	Neat hospital staff	6.87	0.50	6,74	0.81	-0.13	1.400
4	Cosy inventory and furniture	6.65	0.71	6,44	1.17	-0.21	1.829
5	Clean equipment and devices	6.93	0.35	6,63	0.93	-0.30	3.186*
6	Healthy and various food and drink	6.80	0.64	5,72	1.71	-1.08	6.296*
7	Clean and tidy hospital	6.93	0.38	6,58	1.08	-0.35	3,207*
8	Equipment and facilities in accordance with the service (pool, sauna...)	6.79	0.55	6,37	1.06	-0.42	3.536*
9	Appropriate location	6.61	0.83	6.74	0.81	0.13	1.316
10	Service without delays	6.80	0.58	6.36	1.22	-0.44	3.494*
11	Interest in solving patients' problems	6.77	0.58	6.48	1.12	-0.29	2.322**
12	Performing services right the first time	6.67	0.77	6.38	1.22	-0.29	2.205**

Number of item	***Item***	***Expected service quality (E)***		***Perceived service quality (E)***		***SERVQUAL gap***	***Paired samples t-test***
		Mean	*SD*	*Mean*	*SD*	*(P – E)*	*t value*
13	Performing service in the promised time	6.80	0.51	6.46	1.16	-0.34	2.932*
14	Knowing the exact time when service will be performed	6.82	0.53	6.33	1.23	-0.49	3.939*
15	Hospital staff provides prompt service	6.59	0.90	6.38	1.19	-0.21	1.407
16	Willingness to help patients	6.83	0.51	6.55	1.05	-0.28	2.485**
17	Hospital staff has time to answer patients' questions	6.74	0.72	6.55	1.01	-0.19	1.669
18	Hospital staff instils confidence	6.88	0.48	6.51	1.06	-0.37	3.341*
19	Courteous hospital staff	6.79	0.60	6.53	1.03	-0.26	2.271**
20	Hospital staff has knowledge to answer questions	6.76	0.63	6.54	0.97	-0.22	2.008**
21	Feeling safe and secure	6.84	0.50	6.64	0.80	-0.20	2.281**
22	Hospital provides its services without delay	6.51	0.93	6.22	1.29	-0.29	1.906
23	Hospital staff provides services professionally	6.83	0.58	6.66	0.89	-0.17	9.342*
24	Hospital provides individual attention	6.41	0.98	6.30	1.25	-0.11	0.742
25	Hospital staff provides personal attention	6.41	0.98	6.38	1.22	-0.03	0.270
26	Patients' best interests at heart	6.68	0.80	6.34	1.15	-0.34	2.819*
27	Understanding patients' specific needs	6.41	1.14	6.41	1.02	0.00	0.000
28	Quickly resolving problems of patients	6.55	0.87	6.41	1.06	-0.14	1.032
29	Ease of finding one's way around the hospital	6.79	0.58	5.85	1.69	-0.94	5.255*
30	Available and clear information at the hospital	6.85	0.46	6.09	1.47	-0.76	5.023*

Number of item	***Item***	***Expected service quality (E)***		***Perceived service quality (E)***		***SERVQUAL gap***	***Paired samples t-test***
		Mean	*SD*	*Mean*	*SD*	*(P – E)*	*t value*
31	Various medical programs are provided	6.74	0.59	6.27	1.20	-0.47	4.209*
32	Various entertainment programs and social activities are provided	6.28	1.07	4.50	2.18	-1.78	7.529*
33	A choice of sports and recreational programs are provided	6.27	1.15	4.86	2.12	-1.41	6.347*
34	Hospital offer adapted to the contemporary trends and needs of patients	6.55	0.88	5.48	1.64	-1.07	5.969*

Notes: * ($p < 0.01$), ** ($p < 0.05$)
Source: Research results

It is obvious that the respondents had high expectations as all mean values were above 6, and the most frequent score (mode) was 7 for all items. Even though the patients were on the whole satisfied with the level of service quality at the hospital, a negative SERVQUAL gap was evident, which means that perceived service quality was lower than expected. The paired t–test was used to assess the significant mean difference (gap) between patients' expectations and perceptions of service quality (SERVQUAL gap). A slightly significant difference was present in all dimensions of the adapted SERVQUAL scale. However, the largest and statistically significant gap exists among attributes relating to other services that enable the hospital to provide services in the health tourism market: healthy and various food and drink ($t = 6.296$, $p < 0.01$), various entertainment programs and social activities ($t = 7.529$, $p < 0.01$), a variety of sports and recreational programs ($t = 6.347$, $p < 0.01$) and offer adapted to market trends and needs of patients ($t = 5.969$, $p < 0.01$).

Since the field research was conducted by using an adapted SERVQUAL scale, it was necessary to examine the dimensionality and reliability of the perceptions scale before conducting a regression analysis to find out the relationship between perceived satisfaction and overall satisfaction. The results presented in Table 3 were obtained following exploratory factor analysis and reliability analysis for the perceptions scale.
Before the analysis, the proof of the suitability of conducting factor analysis was carried out with the help of the Kaiser-Meyer-Olkin test of sampling adequacy and Bartlett's test of sphericity. The Kaiser-Meyer-Olkin coefficient (0.930) and Bartlett's test of sphericity ($\chi^2_{(561)} = 4949.87$; $p<0.001$) showed that the correlation matrix was suitable for carrying out the factor analysis according to the recommendations of Tabachnik and Fidell (2007, 614). After the verification of suitability of the scale for conducting factor analysis, a principal components analysis with varimax rotation of

the factor axis was carried out. The varimax rotation method is used since the goal was data reduction to a smaller number of variables and clear separation of the factors (Hair et al. 2006, 126-127) by maximizing variance of loadings on each factor (Tabachnick and Fidell 2007, 639). The criteria for the number of factors extracted and variables retained were based on eigenvalues, percentage of variance explained, and significance of factor loadings. Factors with eigenvalues greater than 1, a solution with at least 60% of the total variance explained, and factor loadings above 0.55 taking into account the number of respondents (Hair 2006, 128) were considered as acceptable. Items with saturation higher than 0.40 on more than one factor were eliminated as recommended by Churchill (1979). To check the reliability of the scales, Cronbach's alpha coefficients were calculated.

Four factors were extracted that explain 79.83 % of the total variance. Throughout the process of exploratory factor analysis, some items were deleted due to insufficient factor loadings or cross loadings. Indicators of internal consistency for all factors exceeded the threshold value of 0.70 which is considered to be the accepted limit (Nunnally, 1978).

Table 3: **Results of factor and reliability analysis for healthcare service perception**

Item number	***Item***	***Factor loading***	***Total variance explained (%)***	***Alpha coefficient***
FACTOR 1- Staff communication and reliability			**64.22**	**0.982**
P3	Neat hospital staff	.847		
P7	Clean and tidy hospital	.811		
P5	Clean equipment and devices	.794		
P17	Hospital staff has time to answer patients' questions	.778		
P16	Willingness to help patients	.752		
P9	Appropriate location	.748		
P13	Performing service in the promised time	.714		
P15	Hospital staff provides prompt service	.709		
P19	Courteous hospital staff	.708		
P28	Quickly resolving problems of patients	.697		
P18	Hospital staff instils confidence	.697		
P4	Cosy inventory and furniture	.668		
P14	Knowing the exact time when service will be performed	.661		
P20	Hospital staff has knowledge to answer questions	.648		
P26	Patients' best interests at heart	.628		
P11	Interest in solving patients' problems	.568		
P1	Modern-looking equipment	.567		
P12	Performing services right the first time	.559		
FACTOR 2 - Assurance			**7.29**	**0.900**
P27	Understanding patients' specific needs	.847		
P21	Feeling safe and secure	.814		
P23	Hospital staff provides services professionally	.813		

Item number	*Item*	*Factor loading*	*Total variance explained (%)*	*Alpha coefficient*
FACTOR 2 - Assurance			**7.29**	**0.900**
P22	Hospital provides its services without delay	.551		
FACTOR 3 - Output quality			**4.88**	**0.881**
P33	A choice of sports and recreational programs are provided	.856		
P32	Various entertainment programs and social activities are provided	.838		
P34	Hospital offer adapted to the contemporary trends and needs of patients	.811		
P2	Visually appealing physical facilities	.654		
P8	Equipment and facilities in accordance with the service (pool, sauna...)	.599		
FACTOR 4 - Hospital environment			**3.45**	**0.865**
P31	Various medical programs are provided	.734		
P30	Available and clear information at the hospital	.639		
P29	Ease of finding one's way around the hospital	.581		

Source: Research results

To examine the impact of four dimensions of perceived service quality on overall patients' satisfaction we employed a multiple regression analyses. Multiple regression analyses were run using the four factors of the perceived customer satisfaction as independent variables and the overall customer satisfaction as a dependent variable. Overall satisfaction was measured with two items: "I am satisfied with staying in this hospital" (M=6.51, SD=0.90) and "The service has exceeded my expectations" (M=6.02, SD=1.45). The results of the impact of the perceived service quality dimensions on overall satisfaction of patients are shown in Table 4.

Table 4: **Multiple regression analysis for variables predicting overall patients' satisfaction**

Independent variables	*b*	*SE*	*Beta*	*t*	*Sig.*
Constant	1.227	1,006		1.220	.226
Staff communication and reliability	.040	.016	.323	2.519	.013
Assurance	.189	.066	.324	2.856	.005
Output quality	.103	.025	.350	4.173	.000
Hospital environment	-.057	.058	-.105	-.980	.330
R^2	0.619				
Adjusted R^2	0.603				
Standard error	1.330				
F ratio	38.527				
Significance	0.000				

Dependent variable: Overall satisfaction
Source: Research results

As evident, the perceived service quality dimension was statistically significant in estimating overall customer satisfaction and explained a total of 61.9 % variance on customer satisfaction (R^2=.619). Among four extracted factors, three factors significantly influenced customer satisfaction. Output quality (β=.350, p=.000) had the most significant impact on overall customer satisfaction, followed by assurance (β= .324, p=.005) and staff communication and reliability (β=.323,p=.013).

To examine whether there is a connection between overall satisfaction and loyalty, we carried out a correlation analysis by applying Pearson's correlation coefficient. For this purpose, two composite measures were calculated. As previously mentioned, overall satisfaction was measured with two items. Customer loyalty was measured by asking respondents (1) whether they would recommend this hospital to their friends (M=6.60, SD=0.86) and (2) whether they would stay at this hospital again if given the opportunity (M=6.63, SD=0.88). The correlation between overall customer satisfaction and loyalty was .731 and was significant at $p < 0.01$ which indicates the existence of a positive relationship between overall patients' satisfaction with the health care services and loyalty.

CONCLUSIONS AND IMPLICATIONS

It is obvious that patients have relatively high expectations, which is reasonable when it comes to medical services. The highest expectations are related to the cleanliness of equipment, devices, and the hospital as a whole.

Results of the gap analysis between perceived service quality and patient expectations indicate the existence of SERVQUAL gap in all dimensions. However, the greatest difference between expectations and perceived quality was found in those variables related to additional services. These are the services that the hospital provides in the health tourism market, such as sports and recreational, social and entertainment programs, and fulfilment of the requirements of patients in accordance with market trends. Although the expectations of the patients are lower regarding those services, the largest gap is evident, which is a result of a relatively low score on the satisfactions scale.

The results of regression analysis provide additional evidence of the importance of additional services that come out of the narrow framework of medical services. It is obvious that the dimension of output quality has the greatest impact on overall patient satisfaction, which implies the need to provide other services, including a variety of sports and recreational, social, entertainment and other programs.

As expected, and as seen in previous studies (Choi et al. 2004; Lee et al. 2012), the impact of patient satisfaction on customer loyalty is confirmed. It is reflected in the patients' intention to recommend the hospital to friends and to re-use the services of the hospital if they need them.

The results of the pilot study on the example of specialty hospitals for medical rehabilitation suggest some theoretical and practical implications.

This work has a theoretical contribution which is reflected in testing the dimensionality and reliability of the modified SERVQUAL instrument for measuring service quality in a health tourism organization, or more precisely, a specialty hospital. It was found that the modified model has four dimensions. It was also proved that the quality of services which are outside the sphere of medical services contributes the most to the satisfaction of patients in specialty hospitals for medical rehabilitation. This research is the first of this kind done in specialty hospitals which are active in the non-profit sector with the ambition to provide some of their services in the health tourism market in the future. Therefore, it can be considered to be the starting point for further research on the service quality and customer satisfaction in specialty hospitals.

The results have practical implications and suggest some recommendations to the managements of specialty hospitals. Patients attach considerable importance to the cleanliness and neatness of the facility and equipment, the professionalism of staff, their attitude towards patients and the reliability of service delivery. However, in order to gain competitive advantage in the health tourism market, specialty hospitals must improve the quality of services that come out of the field of medical services, such as hospitality services, sports and recreation, entertainment and social programs, and they should meet the expectations of patients in accordance with market trends. Therefore, in order to improve service quality, it is necessary to understand the importance of additional services provided by speciality hospitals and health spas, as well as to continue the survey of customer satisfaction and service quality.

The conducted research has certain drawbacks that may have an impact on the research results. They are mainly related to the sample and the research instrument. The research has the character of a pilot study and was therefore conducted on the case of one specialty hospital. It was carried out on a convenient sample with a low number of respondents. Future research should be conducted on a larger sample, which would allow the use of advanced statistical methods to evaluate the model for measuring service quality. Further, it is possible to analyse whether there are statistically significant differences in expectations and patient satisfaction with respect to the motives of staying in a healthcare organization, for example, between people who are in hospital due to injuries or recovery and those who use medical services to improve their well-being. In addition, future research may focus on identifying differences in expectations and perceptions of service quality between for-profit and non-profit medical institutions, between institutions in private and public ownership as well as between patients' and service providers perceptions. The research instrument could be expanded with new items and might include questions about the importance of certain variables for the patients.

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