

PATIENT SATISFACTION SURVEY IN HOSPITALS PROVIDING SPA CARE IN HUNGARY

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ABSTRACT. Introduction: Balneotherapy and hydrotherapy treatments with a proven therapeutic effect are of great help to patients in early recovery. **Objective:** The aim of our study is to assess patient satisfaction in two health care institutions in Hungary. **Methods:** We conducted a questionnaire survey among the patients of two spas and other hospitals (H1: n=69 H2: n=59) in Hungary in 2019. The obtained results were evaluated with SPSS 25.0 software. **Results:** 74.22% of the respondents were female (n=95) and 25.78% were male (n=33), of whom 46.78% (n=60) were between 61 and 70 years of age. 71.88% (n=92) of the respondents were informed about the discounted treatments by their specialist and the majority were patients who return annually (n=106), who come again mainly (43.75%) for previous good experiences. They thought they would discover an 88.5% improvement in both the quality of care and treatments. Results of H1 and H2 hospital staff: help (H1: 6.61, H2: 6.05, p=0.001), pain relief (H1: 6.08, H2: 4.95, p=0.015) problem solving (H1: 6.16, H2: 5.46 p=0.009), information provision (H1: 5.82, H2: 5.05, p=0.050) were significantly higher in H1 hospital than in H2 hospital. In the overall picture of the institution, H2 achieved a higher result in terms of health improvement,

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despite the former lower evaluations, but there was no significance (H1: 5.86, H2: 6.00, $p=0.584$). **Conclusions:** Learning the use of treatments and patient satisfaction, constructive suggestions can be made to improve the quality of patient care.

Keywords: patient satisfaction, spa, spa service, quality patient care

Introduction

In recent decades, the need to maintain conscious health care has become more and more critical, and at the same time the need for quality patient care has become more prominent. The medical procedures used in qualified spas have a proven positive effect in the prevention, rehabilitation, and treatment of chronic diseases (Cantista & Maraver, 2020; Dias et al., 2017; Matsumoto, 2018; Menegatti et al., 2020; Koçak et al., 2020; Pinot et al., 2019), as a result, demand for spa services appears to be increasing. Residents with a valid Social Insurance Identification Number can take advantage of the various medical treatments available at the spa twice a year as part of their health insurance.

In addition to the effectiveness of health care, the basic expectation of patients may be the adequacy of institutional conditions. It must be in the interest of the healthcare provider to ensure continuous, high-quality care. Examining patient satisfaction in a health care institution is a form of self-monitoring that can be used to prepare quality improvement proposals, thereby improving the quality of patient care. Such a survey can point out, among other things, the demand for the service, as well as help the successful development of the organization's structure and operating strategy. Based on patients' opinions, we can get an idea of the factors influencing the quality they express, the institutional adequacy of the components of quality patient care perceived by the patients, which also contribute to the patient's well-being and recovery.

Several interpretations of the quality of health care have already emerged. According to the definition published by the World Health Organization (WHO): "Health care shall be of high quality and shall meet the requirements of maximizing its benefits and minimizing the health risk, taking into account scientific knowledge and available resources (Ágoston et al., 2011) The detailed introduction of the structure of the Hungarian health care system (Boncz & Sebestyén, 2006; Boncz et al., 2015; Endrei et al., 2014) and financing features (Boncz et al., 2004; Boncz et al., 2006; Endrei et al., 2014) can be found elsewhere.

By learning about the use of treatments in institutions providing spa services and patient satisfaction, suggestions can be made to improve the quality of patient care. The aim of our study was to assess patient satisfaction in two health care institutions in Hungary.

Material and method

The survey was conducted in 2019 in two spas and other rehabilitation institutes in Hungary. The sample consisted of patients receiving inpatient care in hospitals, for a total of 128 individuals (H1: n=69; H2: n=59). Our data were collected with our self-edited questionnaire containing 29 questions in addition to the basic data, which were evaluated with SPSS 25.0 software.

The first half of the questionnaire consisted of the following ten questions: How did you find out about the discounted (SSC-supported) spa hospital services?; Have you received information on the number of times you can use the spa each year?; Have your needs been taken into account when booking?; How long have you had to wait to start treatment compared to the time you requested at the referral?; Have you previously attended the institute?; and Why did you choose that spa?. We retrospectively examined the opinions of returning patients: the standard of care and treatments; the building and infrastructure; organization of benefits and treatments; and the number of staff.

The rest of the questionnaire examined the following three main aspects of patient satisfaction: staff and treatments, infrastructure, catering, and the overall picture of health centers.

Respondents could mark their answers on a 7-point Likert scale. Descriptive statistics and the Mann-Whitney U statistical test were used to evaluate the results, the latter as a non-parametric alternative to the two-sample T-test to compare the means of responses collected from the two hospitals. The significance level was determined to be $p < 0.05$.

Results

74.22% of the respondents were women (n=95) and 25.78% were men (n=33). Nearly half of the respondents were between the ages of 61 and 70 accounting for 46.78% (n=60), and 32.81% (n=42) were between the ages of 71 and 81. Respondents between the ages of 51 and 61, accounted for 8.59% (n=11) and between the ages of 41 and 50 accounted for 6.25% (n=8). In the lowest number of items, those under 40 years of age participated in the research with 3.91% (n=5) and those over 81 years of age with 1.56% (n=2). The distribution of patient population from the two hospitals (H1, H2) was: H1=53.91% (n=69), H2=46.09% (n=59).

71.88% (n=92) of the respondents were informed about the discounted treatments by their specialist, 18.75% (n=24) by relatives and acquaintances and 9.38% (n=12) by their GP (Figure 1).

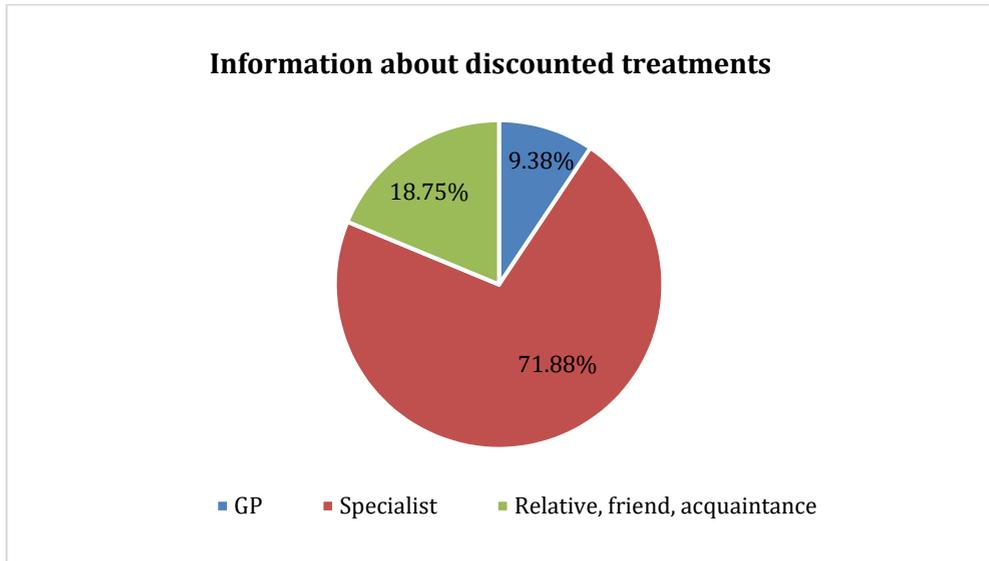


Fig. 1. How did you hear about treatment options?

Most of them, 87.50% of the respondents (n=112), also received detailed information about the possibilities of using these spa treatments. Between the referral and the start of rehabilitation, 33.59% of the respondents, i.e., 43 people, had to wait 9-12 months, 26 people had to wait between 3 and 6 months and another 26 people (20.31%) got into the treatment later than a year. Fourteen people (10.94%) were called in within a month. 10.16% (n=13) of the participants entered the treatment within three months, and another 4.69% (n=6) of them started it within 6-9 months (Figure 2).

Compared to new patients, a higher proportion of those who completed the questionnaire were those who had been returning for years (n=106). Of those returning patients, 43.75% were due to previous good experience, 25% were due to the reputation of the hospital, 15.63% were eligible, 14.84% were due to the doctors and staff working there, and 0,78% of them chose the given hospital for other reasons (Figure 3).

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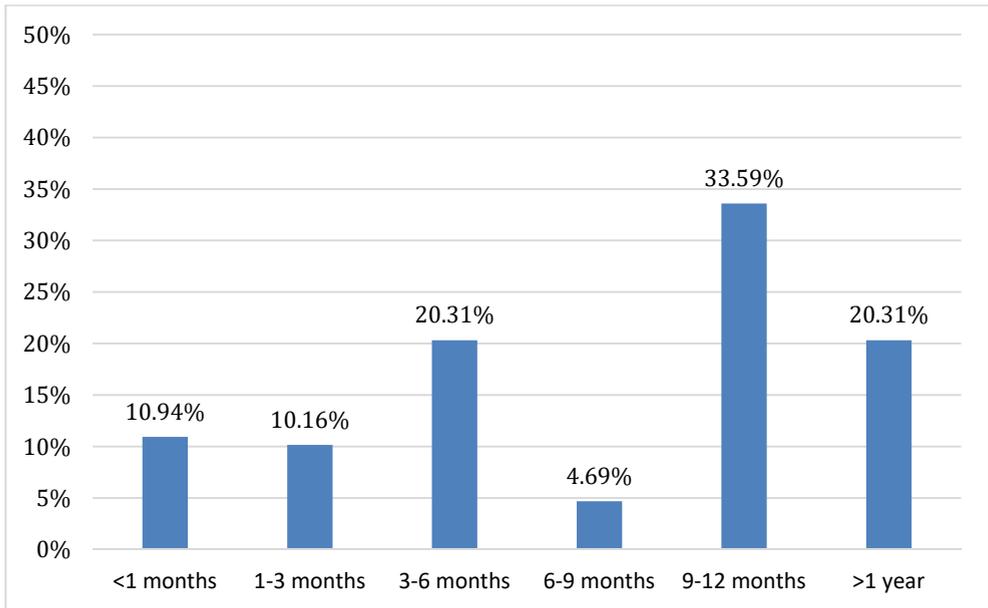


Fig. 2. Waiting time between referral and hospital admission

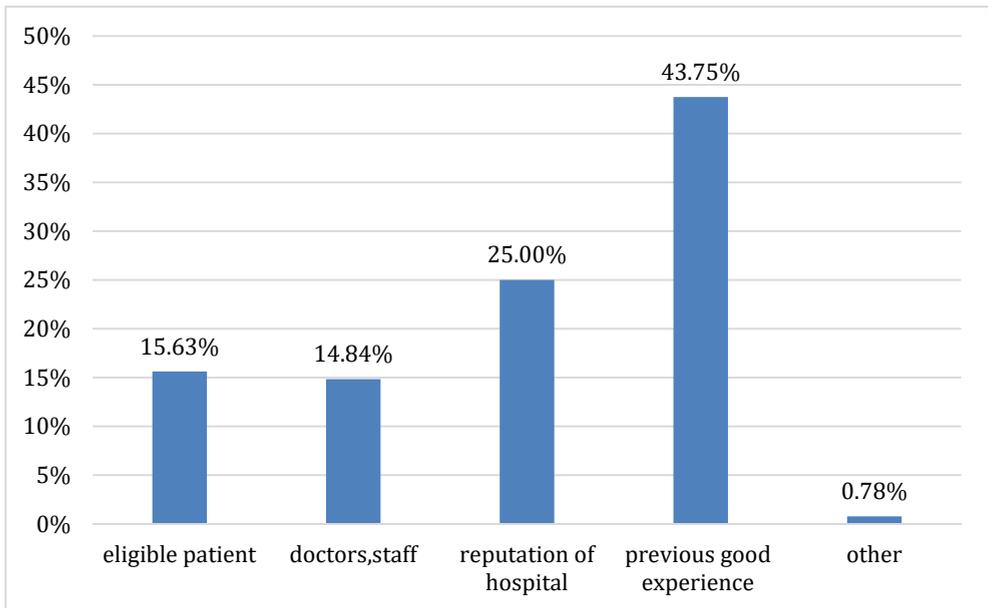


Fig. 3. Motivations for hospital choice

Analyzing the responses of these patients, we found an 88.5% improvement over previous years in the quality of care and treatments. The change in building and infrastructure was considered positive by 75.24% of patients (n=79). Almost without exception (90.48%), an improving trend has been observed over the years in care and treatment organization. The proportion of responses that positively assessed the change in the number of staff was 55.24%, while 44.76% of the respondents did not find this type of development (Figure 4).

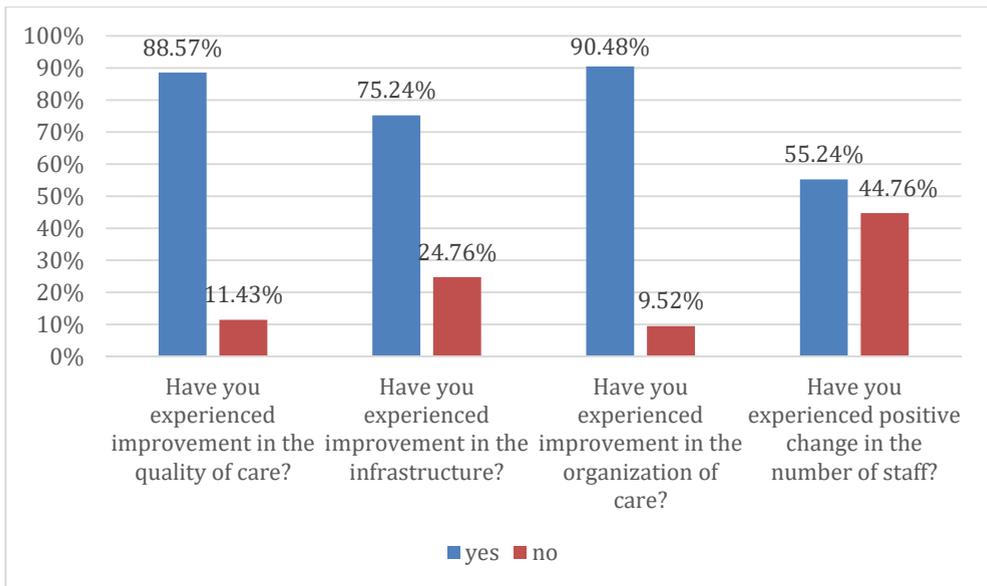


Fig. 4. Experiences of returning patients

The rest of our questionnaire was categorized separately, in which we first examined the issue of patient satisfaction with staff and treatments. There was no significant difference between the politeness and kindness of the staff based on the average of the responses of the patients interviewed in the two hospitals (H1: 6.39, H2: 5.51, $p=0.189$). There was no significant difference between the question on the smoothness and organization of patient admission (Q1: 6.35, Q2: 5.51) and the question on time spent by doctors and nurses for inpatients (Q1: 6.55, Q2: 6.29) among patients from two hospitals ($p < 0.218$, $p=0.494$). Examining a problem emerging in H1 hospital, the staff assistance was significantly better compared to that in H2 hospital (H1: 6.61, H2: 6.05, $p=0.001$). In the case of pain, H1 Hospital was rated significantly better than H2

Hospital for people seeking recovery (H1: 6.08, H2: 4.95, $p=0.015$) based on responses to the helpfulness of staff working in the institution. To the question of whether any concerns could be discussed with care providers (Q1: 6.16, Q2: 5.46) and whether all persons providing treatment introduced themselves and their responsibilities were clearly stated (Q1: 5.82, H2: 5.05). Assessments were significantly higher in H1 hospital than in H2 hospital. ($p=0.009$, $p=0.050$). We found no significant difference based on the responses of patients from the two hospitals to the question of whether treating physicians had regard for the patient's presence (Q1: 6.39, Q2: 5.24, $p=0.211$). Patients at H1 Hospital received significantly higher level of information about the medications needed during treatment than those treated at H2 Hospital (H1: 5.92, H2: 4.98, $p=0.021$). Based on the question of whether they were informed about signs of deterioration at the time of dismissal that requires a doctor immediately, H1 Hospital was rated significantly better than H2 Hospital (Q1: 6.27, Q2: 5.49, $p=0.007$) (Table 1).

Table 1. Satisfaction with hospital staff

Question	No. 1 hospital	No. 2 hospital	Deviation	Mann-Whitney U ($p \leq 0.05$)
The hospital staff is polite and kind	6.39	5.51	0.88	0.189
Patient admission is smooth and well organized	6.35	5.51	0.84	0.218
Nurses and doctors spend enough time on the patient	6.55	6.29	0.26	0.494
Help from staff in case of problems	6.61	6.05	0.56	0.001
In case of pain, the staff is helpful	6.08	4.95	1.13	0.015
Discuss concerns with staff	6.16	5.46	0.69	0.009
Members of staff introduced themselves and explained their responsibilities	5.82	5.05	0.77	0.050
Doctors are mindful of the presence	6.39	5.24	1.15	0.211
Information about medicines to take	5.92	4.98	0.95	0.021
When leaving the hospital, information about signs of deterioration that requires a doctor	6.27	5.49	0.79	0.007

In the second topic, we did not find any significant difference between the patients' responses of the two hospitals in the examination of infrastructure and the question of satisfaction with hospital conditions (H1: 6.27, H2: 6.15, $p=0.929$). There was also no significant difference in the condition of the restrooms based on the responses to the two hospitals (H1: 5.65, H2: 5.20, $p=0.228$). Assessing the condition of the treatment rooms, those treated in H1 Hospital rated the treatment rooms significantly better than those in H2 Hospital (H1: 6.43, H2: 6.10, $p=0.023$). There was no significant difference in the amount of food received during hospital meals between the responses of the interviewed patients of the two hospitals (H1: 6.63, H2: 6.61, $p=0.289$), but H1 hospital proved to be significantly better in the adequacy of food quality (H1: 6.57, H2: 6.34, $p=0.049$) (Table 2).

Table 2. Satisfaction with infrastructure and catering

Question	No. 1 hospital	No. 2 hospital	Deviation	Mann-Whitney U ($p \leq 0.05$)
Hospital conditions are adequate	6.27	6.15	0.13	0.929
The condition of the restrooms is good	5.65	5.20	0.45	0.228
The treatments room is in good condition	6.43	6.10	0.33	0.023
The amount of food is right	6.63	6.61	0.02	0.289
The quality of the food is good	6.57	6.34	0.23	0.049

Turning to the issue of the overall picture of health centers, H2, despite the former lower evaluations, achieved a higher result in terms of the health improvement recognized by its patients, but no significance was found (Q1: 5.86, Q2: 6.00, $p=0.584$). There was no significant difference in the recommendation of the hospital to others (H1: 6.43, H2: 5.85, $p=0.208$). When examining satisfaction with the general condition of Hungarian health care, no significance was established between the stakeholders' responses in the two hospitals (Q1: 4.12, Q2: 3.95, $p=0.965$). Finally, in the case of the satisfaction of the overall picture of the care received during the hospital stay, we obtained an outstanding value in the case of both hospitals, although H1 received a higher average result, no significant difference was observed between the hospitals (H1: 6.63, H2: 6.24, $p=0.149$) (Table 3).

Table 3. An overview of the spa

Question	No. 1 hospital	No. 2 hospital	Deviation	Mann-Whitney U (p <= 0.05)
Health has improved	5.86	6.00	-0.14	0.584
Recommend a hospital to friends and family	6.43	5.85	0.58	0.208
Satisfaction with the general state of Hungarian health care	4.12	3.95	0.17	0.965
Satisfaction with hospital care	6.63	6.24	0.38	0.149

Discussion and conclusion

Health quality assurance is when the quality control of a health service is accompanied by a continuous feedback system that immediately signals deviations from the quality and initiates corrective mechanisms, identifies the factors and individuals responsible for the errors, and eliminates the factor that causes the errors (Boján & Belicza 1995).

The health insurance and utilization indicators related to the social security-supported services of the institutions providing spa care in Hungary are already known and published (Varga et al., 2017; Varga et al., 2017; Varga et al., 2017). Based on the number of treatments performed in spas and other medical services by age group and gender, the older persons are the most common users, and the appearance of the females is more typical in spa hospitals. Divided by counties, there were significant regional disparities in the number of treatments performed and the social security expenditures on treatments in Hungary in terms of the number of treatments performed (Varga et al., 2019).

Our survey shows that the younger age group is less present in the medical institutions. Based on research, it can be stated that musculoskeletal problems are becoming more and more common in this age group, for which the services provided by spa hospitals could be a solution (Dianat et al., 2017; Farkas & Fodor; 2014; Horváth et al., 2006; Kanchanomai et al., 2012; Mowatt et al., 2018; Scarabottolo et al., 2017; Syazwan, 2011). In this case, we can assume that physicians do not necessarily recommend rehabilitation in these institutions for patients who come to them. The communication between the doctor and the patient and its quality greatly influences the behavior of the patients (Antoniette et al., 2009; Fox et al., 2009; Jangland et al., 2009; Merckaert et al., 2009).

By facilitating the proper flow of information, balneotherapy, hydrotherapy, and related therapies with proven preventive and therapeutic effects in treating of various diseases could be effectively promoted (Ballagi, 2000; Bender et al., 2014; Gömör, 2013; Karagülle et al., 2018; Maeda et al., 2017; Oláh et al., 2010; Péter et al., 2017; Sebők & Lengyel, 2008; Verhagen et al., 2015).

It would be essential to emphasize the critical role of primary prevention and patient education as soon as possible to reduce any musculoskeletal or other health complaints that may arise later (Szilágyi et al., 2021).

During a hospital stay, a patient's satisfaction or dissatisfaction is not only determined by the factors that positively influence his or her condition or the lack of them. For example, a possibly long waiting list or inadequate infrastructure does not necessarily make patients dissatisfied. The polite and respectful treatment of hospital staff is far more decisive in examining the patient's satisfaction (Becker-Schiebe et al., 2015; Krupal et al., 2013). The attitude, burnout level, and possible migration habits of the staff working in the health care institution all have an impact on the efficient operation of the health care system and the quality of patient care (Sipos et al., 2019; Vizsy et al., 2021).

The overall picture of the two hospitals examined showed an outstanding value in each case, despite the fact that the respondents negatively assessed certain factors.

Based on our results, it can be stated that the patient satisfaction of the patients of the two hospitals was not negatively affected by the possible lack of human resources, the condition of the subjectively determined wards and toilets, or the lack of material conditions. The research of Oliveira and colleagues also shows a high degree of satisfaction with the quality of service, even though that patients underestimated certain factors (de Oliveira et al., 2006).

Since the beginning of the 2000s, our country has received remarkable support; therefore, a several spa investments and the development of related infrastructure have been implemented from EU and national funds. As a result, the labor market in the affected settlements increased, and the tourism infrastructure developed (Budai, 2002) which was also supported by the answers of the returning patients.

As a limitation of our research, it should be mentioned that our questionnaire was self-edited, so it is difficult to compare it with the results of other publications. By learning about the patient satisfaction of spas and other healthcare providers, providers can get feedback on the overall picture of their facility, which can help them improve the quality of the services they provide.

Authors' Contribution

Planning and conducting the study: VV, BI, MB Literature search: VV, JR, SGYM, SZB

Questionnaire survey: VV, BI Data processing: VV, BI, MB, KV Statistical analysis: VV, KV, JR. Manuscript wording: VV, SGYM, JR, MB, BI.

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