Effects of Hospital Decentralization Processes on Patients’ Satisfaction: Evidence from Two Public Romanian Hospitals across Two Decades

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Abstract: Patient satisfaction represents an essential indicator in assessing healthcare quality, as it is an extensive source of information regarding the healthcare provider’s ability to meet patients’ expectations and is a key predictor of patients’ behavioral approaches. The purpose of this study is to evaluate the degree of satisfaction of patients who have been admitted for inpatient hospitalization in two public hospitals located in the North-West of Romania, during two different periods of administration/management of healthcare services, in the context of an ongoing decentralization process of public healthcare services (initiated in 2010). An exploratory study was conducted in the period of April–December 2021, based on a patient satisfaction survey, through which the quality of in-hospital services was evaluated at present and up until 2010, by the hospitalized patients in both periods. In total, 208 survey responses were validated and analyzed. The chi-square test and t-test were used for statistical processing. The results of the survey revealed that the percentage of patients that evaluated the inpatient experience as excellent was significantly higher during the period when hospitals were administered by local authorities than during the period of centralized administration (68.27% vs. 28.37%; \(p < 0.001\)), both in medical care as well as in hospital hotel services (71.63 vs. 29.81%), respectively (56.25 vs. 27.40; \(p < 0.001\)). The results obtained from this survey indicate that the decentralization of hospital units has had a positive effect on the quality of inpatient medical services and highlight the need for formulating and finalizing a policy aimed at developing and enhancing medical services.

Keywords: hospital decentralization; patient satisfaction; public health system; healthcare sector management; Romania

1. Introduction

Quality of patient care is a key concept related to quality assurance and quality improvement programs in the healthcare sector. There has been a longstanding awareness of the importance of quality in the healthcare sector. However, efforts to improve and maintain quality have only significantly advanced over the last decade, through the development of quality improvement and quality assurance programs, as well as patient agenda setting [1]. Although attaining effectiveness and safety are in essence universal healthcare
aims, societies and cultures around the world place different degrees of emphasis on additional aims, such as patient centeredness, timeliness, efficiency, and equity. Healthcare measures—including process measures—are established for diverse audiences, who may apply these measures in areas such as healthcare purchasing, healthcare utilization, or performance improvement [2].

The World Health Organization (WHO) has determined that the health condition and level of well-being of a population are directly correlated with performance of healthcare systems. Furthermore, the assessment of patients’ satisfaction level, as a component of healthcare system responsiveness, has been identified as one of the five indicators that measure healthcare system performance [3,4].

The Romanian healthcare system ensures equitable and equal access to a package of baseline medical services. It is a system that functions as a health insurance plan [5]. The concept of “hospital decentralization”, as presented and applied by the Governmental Emergency Ordinance no. 48/2010—aimed at modifying and supplementing existent normative acts concerning decentralization within the healthcare system [6]—introduced a concept that was innovative and unfamiliar to the Romanian healthcare system. This revolutionary notion became a starting point in the process of changing the administrative approach of public hospital units, placed until that point under the administration and coordination of the Ministry of Health.

A certain level of patient satisfaction in regards to the provided medical services has been outlined during the period when hospitals functioned on the basis of Law no. 95/2006—regarding the healthcare system reform—within a centralized system, (both until 1989, with the Romanian Government and its subordinate entities functioning as an exclusively top-down system, as well as between 1989 and 2010) [5,7]. Until 2010, the administrative system of hospitals was conditioned by a management contract [8], between the hospital’s manager/director and the Ministry of Health. Human resources, which encompassed all personnel categories (from administrative to medical) and all associated activities, including hiring, transfer and promotion, were completely dependent on the special governing body. Until the National Health Insurance House of Romania was created, in 1999, financing of the healthcare system was attributed to the Ministry of Health, which operated at county level through its deconcentrated public service institutions—the County Public Health Departments.

The year 2007 is considered a defining year for the onset of developments in the Romanian healthcare system, as patients’ expectations regarding the quality of healthcare services started to increase substantially, because of the unrestricted access of Romanian citizens to the European Union. Specifically, Romanian citizens have become beneficiaries, as needed and within the limits of the law, of medical services in other EU countries. The market of medical services in other European countries, with a better organized and more efficient medical system in terms of medical equipment, as well as the professional quality of medical staff, definitively altered the perception and degree of acceptance of the administration and organization system of all medical activity pertaining to Romanian public hospitals.

The measures taken by the Romanian Government in 2010, regarding pay cuts of staff employed in state institutions (including medical personnel of hospitals in Oradea), inevitably led to a migration of the workforce to other countries, especially European Union member states, where the income was significantly higher than in Romania [7]. The migration of medical personnel, especially physicians, significantly contributed to the diminishing quality of medical services and this was undeniably indicated by the growing level of dissatisfaction manifested by patients treated in Romanian hospitals. While the number of medical school graduates was consistently on the rise, the national government lacked a realistic human resources policy within the healthcare sector. This situation led to a significant proportion of these graduates migrating to other countries, and thus, to the drastic decrease of medical personnel in hospitals (including hospitals in Oradea); consequently, the “migration” of the medical workforce was reflected in the quantity and
quality level of medical services. On the other hand, Romanian citizens now had the possibilities of visiting, carrying out lucrative activities, and spending their vacations in other economically and socially developed areas in Europe. These circumstances prompted Romanians to engage in continuous comparison between the Romanian healthcare system and the healthcare systems of other European countries.

The increase in salary level for physicians in hospitals, by Law no. 153/2017—concerning the pay scale of personnel paid from public funds [9]—has influenced the degree of expectations regarding the medical care and the communicative and open attitude of medical personnel towards the patient. It is important to note that the substantial salary increases were only applicable to physicians and nurses, with the rest of staff not benefiting from these increases [10]. Although only a part of the medical staff was substantially financially motivated, the request to develop and improve medical services is a claim of the patient, in a changing society, in which the physician, as a member of the society, benefits from a socially and economically privileged position, compared to other professional categories [11].

Regardless of the management system implemented within a hospital, in the scope of fulfilling the objectives outlined by Law no. 95/2006 [5,12], the main responsibility of all hospital employees is quantified and outlined by assessing the level of patient satisfaction within the hospital. Monitoring the level of patient satisfaction is a perpetual obligation, not only for the hospital administrative team but also for the Ministry of Health [13], which supports implementing objective measures for the purpose of attaining efficient, capable, and inclusive management. Relevant outcomes in healthcare management, such as superior compliance, reduced use of medical services, reduced malpractice disputes and improved prognosis, can be directly traced back to confirmed patient satisfaction. [13]. Over the past 20 years, the practice of evaluating the quality of hospital medical services has been extended through the introduction of new parameters intended to quantify and analyze the quality component of medical services.

Across Europe, and also on other continents, the approaches to measuring patient satisfaction are presented and analyzed according to different parameters, which can be general, or specific to a certain demographic, cultural, or social segment [14]. The parameters included in evaluations are numerous and varied, depending on the calculation formula, the moment in time in relation to local or national history, certain religious or social aspects specific to a population, as well as the level of economic development which characterizes a particular geographic location [15].

The results presented in the literature are in strict correlation with certain factors, as follows: the intellectual capacity of the patient, the living environment (rural or urban), the age category, the behavior of the medical personnel carrying out the medical service, etc. Certain signals highlight the fact that the patient’s degree of satisfaction has a strong dependency on the ability of the medical staff to empathize, while fulfilling medical services. Medical personnel can achieve high levels of empathy in hospitals where both material as well as emotional comfort are ensured for all medical staff, through a management approach that is applied correctly and in accordance with efficient and impartial principles [16,17].

The interdependence between the parameters presented above varies according to the influence of certain factors, either objective, permanent or temporary. One of the factors worth mentioning is the financial policy established at hospital unit level and the way this policy is implemented by the hospital’s administrative board [18,19]. An organization system which is efficient from an administrative-financial perspective and which ensures that principles and regulations are applied in an objective and unbiased manner to all hospital personnel, is conducive to the creation of conditions that benefit the execution of medical acts [17].

The satisfaction of Romanian patients is classified in Europe as one of the lowest [20]. The results of an exploratory study, conducted nationwide, in January–February 2019, which assessed the level of patient satisfaction with the measures applied in the Romanian health system, showed that only 39.71% of Romanians are satisfied in terms of the quality of medical services, which obviously means that the other 61.29% are disappointed [21].
Another national exploratory study, conducted in 2020, assessed patients’ satisfaction and perception of the quality of the national health system, both as a whole and its components. In terms of satisfaction level, the study showed that only about a third of those surveyed were satisfied/very satisfied (20/19%) [22]. The results of the recent above-mentioned research are in line with the results of other published studies conducted in Romania, highlighting the need for the health system to optimize and adapt to growing patient expectations, including the relationship between quality of healthcare and patients’ satisfaction [23–26].

In this existing legislative and factual framework, the present study aimed to evaluate the degree of patient satisfaction among patients diagnosed and treated in the public hospitals that are part of the medical network of the Municipality of Oradea, Romania, in relation to the hospital administration system—centralized/decentralized—in order to identify the optimal solutions that could positively influence the degree of patient satisfaction. Patients’ satisfaction in the use and the quality of healthcare services can thus be considered an important tool in thinking about and promoting the quality of healthcare services, improving the population’s access to the best conditions, and optimal monitoring.

The novelty factor of the present study is brought about by the fact that, up until this moment in time, within the Romanian healthcare system, there has been no comparative studies conducted that compares the administrative policy of two public hospital units, in two different time periods. Each period is quantified as a decade and represents a timeframe when hospital management has been subordinated to either the Ministry of Health, or to the local public administration. The results of this study can provide an instrumental basis for the purpose of conducting and improving marketing research on the quality of public healthcare. This is especially relevant in the current context, where Romania must urgently work on improving perception of the healthcare system.

2. Materials and Methods

2.1. Methodology

The study was conducted during April-December 2021, in two public hospitals located in the north-west of Romania, County Clinical Emergency Hospital of Oradea (CCEHO) and “Dr. Gavril Curteanu” Municipal Clinical Hospital of Oradea (MCHO), both independent legal entities, with the function of providing healthcare services, operating on the basis of the principles stipulated in Law no. 95/2006 [5]. During the period 2000–2010, the two hospital units included in the study were placed in subordination of the Ministry of Health, which exercised its prerogatives either in a direct manner, without any intermediary institutions, or through the Bihor Department of Public Health. After 2010, the public hospitals in Oradea were transferred to the authority of the Local Council of Oradea. Medical activity, administrative activity, medical education and scientific research are all carried out in accordance with the norms and guidelines of Law no. 95/2006 [5], and additionally in conformity with other special legislative acts [7].

This research was conducted in compliance with all legal norms in force regarding patient rights and professional ethical standards and has received the approval of both the Ethical Councils of MCHO (13413/15.04.2021) and CCEHO (11908/11.05.2021). The parameters established through the application of the patient satisfaction survey (PSS) were approved by the specialty and administrative boards of both hospital units, in accordance with the applicable legislation in force [27].

The PSS was distributed through the closed-circuit communication system of the hospitals (an internal communication network of the hospital with the server logged in to the statistical service, through which the PSSs were uploaded and distributed on hospital wards, with the related explanations). Subsequently, the PSSs were distributed in hard copies to all patients admitted during the study period, who had verbally agreed to complete them. Upon receipt of the questionnaire, patients received the necessary explanations regarding the completion requirements, were informed about the purpose of the questionnaire and were asked to leave the completed PSS in the ward, at discharge.
Not all questionnaires were recovered (Figure 1), with some patients forgetting to leave them at the time of discharge or changing their minds about accepting their completion.

Figure 1. Survey application in the two hospitals.

During the study period, out of a total of 24,290 discharged patients, only 2536 (10.44%) completed the PSS. At the CCEHO, from the 14,198 discharged patients, only 1531 (10.78%) completed the PSS, while at the MCHO, from the 10,092 discharged patients, 1005 (9.96%) completed the PSS. The total number of hospitalized patients before 2010 and in 2021 was 1873 (592 for CCEHO and 1281 for MCHO). A total of 236 survey responses have been recorded from these patients (80 patients hospitalized at the CCEHO and 156 patients hospitalized at the MCHO). Out of these, 208 responses were validated (60 for CCEHO and 148 for MCHO) (Figure 1). Responses represent 11.11% (10.14% for CCEHO and 11.55% for MCHO).

Considering the incidence of the phenomenon (completion of questionnaires by patients) of about 10% \( (p = 0.1) \), we calculated the sample size by applying the formula:

\[
N = \frac{N z^2 p q}{(E^2 (N - 1) + z^2 p q)}
\]

\( N \)—total population size; \( n \)—sample population size; \( z \)—confidence interval 95%—\( Z = 1.96 \); \( E \)—margin of error (0.05); \( p \)—probability value (0.1); \( q = 1 - p = 0.9 \).

According to the calculations, the minimum representative sample size is 129.

The patient satisfaction survey (PSS) consists of 24 items and is structured to contain the following pillars (Table S1):

- Patient data (items 1–5);
- Quality of medical care (items 6–15);
- Quality of hospital hotel services (items 16–23).

The surveys that were applied during the period of the study had two answer options:

A. The first option was in reference to inpatient hospitalization in the period 2000–2010;
B. The second option was in reference to inpatient hospitalization in 2021.

The approximate time allocated to explaining the purpose of the questions and the general purpose of the survey, as well as for completing the survey, was estimated to be around 15 min. The primary function of the preliminary discussion was for the patient to be fully aware of the general topic of the survey, the content of the survey questions and
the fact that the answers given are to be objective and realistic. With respect to the way the answers regarding medical care and hospital hotel conditions were quantified, each answer option was allocated a score of 0–3, which was calculated and interpreted according to the data from Table S1 (presented in the Supplementary Material).

2.2. Statistical Analysis

In the statistical analysis of the data obtained, Microsoft Excel 2019 was used for data entry and management, and SPSS 20 for the interpretation of data obtained from patients. Average parameter values, standard deviations, frequency, and tests of statistical significance were calculated by the Student t (t-test) and $\chi^2$ (Pearson’s chi-squared test) method. The level of statistical significance was 0.05.

3. Results

3.1. Patient Data

In the study group, most patients were male and came from rural areas. The age of the patients was 28–75 years, the percentages being equal in the age groups 30–60 years and over 60 years. Over 60% of the subjects had secondary education (68.27%), higher education representing 20.67%, and 11.06% being without education (Table 1).

Table 1. Socio-demographic patient characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>115</td>
<td>55.29</td>
</tr>
<tr>
<td>Female</td>
<td>93</td>
<td>44.71</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>14</td>
<td>6.73</td>
</tr>
<tr>
<td>30–60</td>
<td>97</td>
<td>46.63</td>
</tr>
<tr>
<td>&gt;60</td>
<td>97</td>
<td>46.63</td>
</tr>
<tr>
<td>Living environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>92</td>
<td>44.23</td>
</tr>
<tr>
<td>Urban</td>
<td>116</td>
<td>55.77</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>23</td>
<td>11.06</td>
</tr>
<tr>
<td>Secondary</td>
<td>142</td>
<td>68.27</td>
</tr>
<tr>
<td>Higher</td>
<td>43</td>
<td>20.67</td>
</tr>
</tbody>
</table>

Most respondents were admitted to the oncology wards (oncology and radiotherapy), and few to the psychiatric wards. Because most of the subjects were hospitalized on the oncology wards (where the treatment is regular and scheduled), emergencies represented <30% of hospitalizations, the rest of the hospitalizations being scheduled (Table 2).

Table 2. Distribution of patients according to the profile of the ward and the type of hospitalization.

<table>
<thead>
<tr>
<th>Patients’ Distribution</th>
<th>Nr.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward profile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>33</td>
<td>15.87</td>
</tr>
<tr>
<td>Medical</td>
<td>64</td>
<td>30.77</td>
</tr>
<tr>
<td>Oncology</td>
<td>106</td>
<td>50.96</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>5</td>
<td>2.40</td>
</tr>
<tr>
<td>Inpatient hospitalization type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled</td>
<td>146</td>
<td>70.19</td>
</tr>
<tr>
<td>Emergency</td>
<td>62</td>
<td>29.81</td>
</tr>
</tbody>
</table>
3.2. Medical Care

Out of the 146 hospitalized patients with scheduled hospitalization, the waiting time (of >2 h) was indicated by 23.97% of the respondents in 2010, and in 2021, by 10.64% ($\chi^2$: 9.033, DF: 1, 95% CI: 4.6682% to 21.8752%, $p = 0.003$). Poor staff attitude and conduct was indicated by 5.48% in 2010 and by 1.42% in 2021, ($\chi^2$: 3.600, DF: 1, 95% CI: $-0.3565\%$ to 9.1241%, $p = 0.058$). Of the 62 patients admitted by emergency, waiting time of > 2 h was indicated by 16.13% of respondents in 2010, and by 11.94% in 2021 ($\chi^2$: 0.447, DF: 1, 95% CI: $-8.3850\%$ to 16.7503%, $p = 0.504$) and the attitude of the emergency department staff was deemed poor by 19.35% and 4.48%, respectively ($\chi^2$: 6.478, DF: 1, 95% CI: 3.3872% to 26.7521%, $p = 0.011$). Regarding waiting times over 2 h, there are no significant differences between the Patient Admissions Department and the Emergency Department, both in 2010 and in 2021 (23.97% vs. 16.13%, $\chi^2$: 1.570, DF: 1, 95% CI: $-4.8547\%$ to 18.2105%, $p = 0.210$, and 10.64% vs. 11.94%, $\chi^2$: 0.075, DF: 1, 95% CI: $-7.1636\%$ to 12.4177%, $p = 0.785$, respectively). In 2010, the attitude and behavior of the staff of the Patient Admissions Department was evaluated as poor at a significantly lower rate than the Emergency Admissions staff (5.48% vs. 19.35%, $\chi^2$: 9.588, DF: 1, 95% CI: 4.5252% to 25.6740%, $p = 0.002$), and in 2021 the percentage was insignificantly lower (1.42% vs. 4.48%, $\chi^2$: 1.780, DF: 1, 95% CI: $-1.5612\%$ to 11.4370%, $p = 0.182$) (Figure 2).

![Figure 2. Evaluation of inpatient hospitalization.](image-url)

The attitude of the ward staff was evaluated as excellent by 50.00% of the respondents in 2010, with the percentage increasing significantly in 2021 (74.04%, $\chi^2$: 25.455, DF: 1, 95% CI: $14.7810\%$ to 32.7237%, $p < 0.001$). The percentage of subjects who rated the staff attitude as poor also decreased significantly in 2021 compared to 2010, to below 1% (4.33% vs. 0.96%, $\chi^2$: 4.576, DF: 1, 95% CI: $0.1657\%$ to 7.1265%, $p = 0.032$). The percentage of respondents who rated the quality of the medical act and care as excellent increased significantly in 2021 compared to 2010, regardless of whether they were performed by doctors, nurses, or orderlies (39.42% vs. 67.31%, $\chi^2$: 32.428, DF: 1, 95% CI: $18.4046\%$ to 36.6638%, $p < 0.001$, 46.15 vs. 71.63%, $\chi^2$: 27.823, DF: 1, 95% CI: $16.1022\%$ to 34.2278%, $p < 0.001$, and 36.06% vs. 57.21%, $\chi^2$: 18.648, DF: 1, 95% CI: $11.5908\%$ to 30.1694%, $p < 0.001$, respectively), while the attire of the medical staff received the highest rating, by 82.21% of respondents in 2010,
and by 93.27% of respondents in 2021 ($\chi^2$: 11.798, DF: 1, 95% CI: 4.7991% to 17.4189%, $p < 0.001$).

In 2010, close to 55% of subjects had to bring their own medication or receive medication from outside of the hospital, while hospitalized. This percentage dropped significantly in 2021, though it remains considerably high (29.33%, $\chi^2$: 28.035, DF: 1, 95% CI: 16.2581% to 34.4418%, $p < 0.001$) (Figure 3).

### 3.3. Hospital Accommodation Conditions

Hospital accommodation conditions significantly improved in 2021 compared to 2010. Thus, patient accommodation conditions were evaluated as poor and bad by 22.59% of respondents in 2010, and by only 5.29% ($\chi^2$: 25.883, DF: 1, 95% CI: 10.8157 to 23.8698%, $p < 0.001$) of respondents in 2021. The percentage of patients which assessed cleanliness as poor, the restrooms as dirty or very dirty, or the bed linen as poor or bad, significantly decreased in 2021 compared to 2010 (2.40 vs. 12.02%, $\chi^2$: 25.883, DF: 1, 95% CI: 10.8157 to 23.8698%, $p < 0.001$; 6.73% vs. 19.71, $\chi^2$: 15.237, DF: 1, 95% CI: 6.5431 to 19.4911%, $p < 0.001$, and 7.69 vs. 28.84%, $\chi^2$: 31.087, DF: 1, 95% CI: 13.9044 to 28.2648%, $p < 0.001$, respectively).

Regarding the meals (timeliness, quality, quantity, and tableware), over 75% of respondents had a positive rating, marking a substantial increase compared to 2010 (55–70%). It is worth noting that, concerning the meal quantity indicator, 19.23% of the patients responded that the meals are overly generous in quantity (Figure 4).

### 3.4. Patient Satisfaction Survey Score

Analyzing the PSS completed information, there is a generalized improvement in scores regarding the waiting time and staff attitude, without significant differences ($p = 0.207$, and $p = 0.296$, respectively), while the scores for the other indicators increased significantly ($p < 0.001$). In 2010, the score for medical care was significantly higher than for hospital accommodation conditions (16.21 vs. 15.19, $p = 0.023$), while in 2021, the difference became insignificant (19.70 vs. 19.24, $p = 0.200$), which leads us to conclude that the recent investments in the renovations of the hospitals have proven their effect (Figure 5).
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Figure 4. Evaluation of hospital accommodation conditions.

Figure 5. PSS score per pillar.

The scores related to the items for hospital admission (waiting time and the attitude of the staff) reveal the need to identify solutions to reduce the waiting time, both at the Patient

...
Admissions Department and at the Emergency Department. Also, more attention should be paid to the behavior and attitude of medical personnel, especially in the Emergency Department (2.38 vs. 2.09, \( p = 0.004 \)) (Figure 6).

![Figure 6. PSS score per indicators—inpatient hospitalization.](image-url)

The ward staff received the highest score for attitude (2.47) (Figure 7). This score was insignificantly higher than the Admissions Department staff attitude score (2.38, \( p = 0.322 \)), but significantly higher than that of the Emergency Department staff attitude (2.09, \( p < 0.001 \)).

![Figure 7. PSS score per indicators—hospital ward.](image-url)

Regarding the quality of medical care, in 2021, the highest score was attributed to nurses (2.70), an insignificantly higher score than the one physicians received (2.67, \( p = 0.537 \)), but significantly higher than the score for orderlies (2.55, \( p = 0.005 \)) (Figure 7), which means that there is a need to intensify the training of orderlies in how to conduct themselves in the presence of patients and how to exhibit positive attitudes and empathy.

From the cleanliness perspective, the highest score was in the case of bathrooms (2.41), insignificantly higher than the score attributed to the quality of the linen (2.33, \( p = 0.185 \)), but significantly higher than the ward cleanliness score (2.15, \( p = 0.002 \)). Since each individual
patient room is equipped with a connecting restroom, keeping the restrooms clean is much easier (Figure 8).

![Figure 8. PSS score per indicators—hospital accommodation conditions.](image)

In terms of meals, the lowest scores were recorded for the quality of the meals and tableware (2.36 and 2.37, respectively, \( p = 0.917 \)), a significantly lower score than for serving time and amount of food (2.54, \( p = 0.041 \) and 2.69, \( p < 0.001 \), respectively).

3.5. Final Evaluation

From the perspective of inpatient hospitalization, the percentage of patients who provided excellent ratings has increased significantly in the 10 years since the hospitals were transferred to local authority subordination, from 28.37% to 68.27% (\( \chi^2: 66.143, \text{DF: 1, 95\% CI: 30.6486 to 48.1297\%, } p < 0.001 \)), both in the field healthcare services, as well as in that of hospital accommodation conditions (from 29.81% to 71.63%, \( \chi^2: 72.595, \text{DF: 1, 95\% CI: 32.6190 to 49.9488\%, } p < 0.001 \), and from 27.40 to 56.25%, \( \chi^2: 35.490, \text{DF: 1, 95\% CI: 19.4954 to 37.4878\%, } p < 0.001 \), respectively) (Figure 9).

![Figure 9. Final evaluation.](image)
4. Discussion

The main objectives of a healthcare system are to attend to the healthcare needs of a population and strive to provide access to medical treatment and medication for all [23], as well as to broaden the presence of healthcare services beyond urban settings, to rural areas [24]. It is assumed that decentralization is a strategy that can strongly impact the way healthcare services function. Consequently, decentralization is an extensively recommended reform measure, that is expected to improve efficiency in critical areas of a healthcare system: healthcare financing and quality of medical services [28].

Based on the interpretation of the data obtained in this study, we can highlight some advantages of the continuous process of decentralization, which has been applied in recent years at the level of the two public hospitals in the north-west of Romania. Decentralized management has been conducive to an improvement in reaction time pertaining to the time elapsed from patient presentation at the Admissions Department to arrival on the ward, as well as an increased percentage of the admission-to-hospitalization process completed in under one hour. Regarding this aspect, the percentage of patients who were hospitalized in less than an hour from arrival at the Admissions Department has doubled in the case of MCHO, while in the case of CCEHO—which is defined as an emergency hospital—the percentage slightly decreased (from 16.13 to 11.94) in the period of 2010–2020, compared to the period when the hospital was under the jurisdiction of the Ministry of Health, as can be seen in Figure 2 [22].

Regarding the behavior and attitude of the medical staff, physicians, nurses, orderlies, medical registrars, and ward staff, we notice an improvement under decentralized management. The proximity of the local public administration to the patient, as well as its ability to intervene can be a determining factor in improving the behavior of the medical staff towards the hospitalized patient [23].

Several strengths of hospitals that function in a decentralized system can be identified as the quality of the medical act and care provided by physicians and nurses, the cleanliness of the hospital and its wards, and the fact that patients are no longer in a situation where they must bring medication from outside the hospital. In fact, it has been scientifically demonstrated that the quality of the medical services is in direct accordance with the level of professional training of the medical staff, as well as with the state of mental and physical balance of physicians, nurses, etc. [24].

Numerous studies have proven that when healthcare providers perform their activities with a sense of satisfaction and fulfillment, they provide medical services of superior quality, leading to improved outcomes and higher patient satisfaction [9,16,29]. However, it is undeniable that the indicators regarding health care service quality are the dominant determinants of patient satisfaction. And the indicator that stands out as a key determinant of patient satisfaction is the healthcare personnel’s interpersonal care quality [10,11].

During the centralized period (before 2010), the patients of the two public hospitals from the medical network of the Municipality of Oradea, had medical services provided by medical staff who were remunerated with salaries kept, artificially, at a low level. At times, according to 2010 state statistics, the official income of doctors was lower than that of other professionals with higher education, although the continuous education and medical training of physicians would realistically impose a higher level of financial earnings [20]. Patients from Oradea and beyond had a somewhat low perception of the quality and quantity of medical services, a level directly proportional to the salary of a physician.

In the 10 years since decentralization has been implemented, the local public administration, through its private funds and non-reimbursable funds, has invested significantly in the rehabilitation and modernization of buildings [11,30,31], equipment and materials, in order to increase the population’s access to medical services.

The two hospitals in the study have undergone an unprecedented process of enhancement including structural changes needed to better meet the needs of the population (such as the inclusion of new medical services), improvement and reconstruction of existing spaces (aligning them to current standards), modernization and upgrading of devices
and technology, access to healthcare programs, and increase in the number of employees through competitive selection processes [17]. Efficient hospital management has resulted in widespread benefits, such as paid training for medical staff, extended study leave, food allowances and holiday bonuses for the hospital staff, implementation of measures and systems that have eased certain work tasks and enhancing workplace comfort for employees. The improvements geared towards providing quality medical care and better professional performance—determined by investments in the professional satisfaction of employees, renovation and enhancement of working spaces [32,33], and procurement of modern medical equipment and technological devices and software, paralleled with the appropriate training of staff—have been elements that increase the satisfaction of the employees [34,35].

The crucial part played by investments in healthcare physical resources (facilities, technology, equipment, etc.), as well as in the healthcare human resources [36], for the purpose of continuous development, has been highlighted by the latest global health policy initiatives, characterized by concurrent propositions regarding the different areas of sustainable development. These approaches clearly emphasize the drive for consolidation of the healthcare sector [37–40].

The results obtained through the application of this survey highlight an acute need for formulating and finalizing a policy aimed at developing and enhancing medical services. It is necessary to first achieve this at the level of each hospital unit, and then, to expand it to the administrative territorial units of the central authority and to the Ministry of Health. Certainly, the development policy of each hospital shall take into account the relevant particularities and characteristics of the hospital, such as the number of inpatient and outpatient hospital beds, the locations in which the medical act is being performed, and the pay and qualifications of the medical personnel.

Among the limitations of this study, the most important are related to the size of the sample and the fact that both hospitals are coordinated by the same territorial administrative unit (namely Oradea County Council, which invested significant sums of money from grants in rehabilitation and the endowment of the hospitals, as well as in the improvement of the personnel, thus increasing the quality of the medical services and the access of the population to them). Therefore, the results of this study cannot be generalized, although (as are the strengths of the study) they give some general directions and provide an innovative instrumental basis/a tool for the purpose of conducting and improving marketing research on the quality of public healthcare. Another limitation refers to the fact that patients were questioned about services they received more than 10 years ago. In addition, the COVID-19 pandemic limited the population’s access to hospital services (one of the hospitals under study became a COVID hospital during emergencies decreed by the Romanian Government), preventing face-to-face interviews with patients, and explaining the reason why many respondents consisted of those admitted to the oncology and medical departments (which continued to function throughout this pandemic period). The limits mentioned above may still constitute a topic suggesting further research. Given the fact that the pandemic has produced some visible changes in the health system in Romania and further highlighted the need to strengthen it, it would be interesting to conduct a study to assess patients’ perceptions of these changes.

5. Conclusions

The decentralization of medical units with patient beds in the Municipality of Oradea had a beneficial effect on the quality of the Oradea public hospital services. In the period 2021, compared to 2010, it was possible to appreciate that both the quality of the act/medical care (provided by doctors and nurses) and the conditions of hospital accommodation were excellent or significantly improved (in 2010, the score provided for medical care was significantly higher than for hospital accommodation conditions, while in 2021, the difference between the two became insignificant). There was also a general improvement in waiting time scores, staff attitudes, scores on these items highlighting the need to identify solutions to reduce waiting times, both in the Patient Hospital and in the Emergency
Department. The percentage of patients who gave excellent grades in both health services and hospital accommodation has increased significantly for the 10 years since the hospitals were transferred to local authorities. The proximity of the local decision makers to the hospital personnel, but also to the patient, imposed a more efficient management of all healthcare-related activity, with effects on the level of quality of the medical services provided. Although the findings of the present study are clear on a local level, additional studies to support the results of this research are needed for an objective assessment of the impact of the decentralization process on the efficiency of the Romanian healthcare system.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/su14084818/s1, Table S1: Patient satisfaction. Questions and answer options.


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