

EVALUATION OF SERVICES RECEIVED IN HEALTHCARE INSTITUTIONS

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Abstract. Ongoing global changes and rapid changes in situations lead not only to a change in business organization models but also to restructuring the supply systems themselves. This is especially relevant when analyzing the health-care system since the supply chain must be flexible and resistant to unforeseen events; the best example is the Covid-19 situation. It is necessary to pay attention to the fact that the main focus in the health care system is and must be directed to the user of the service, i.e. the client/patient, the satisfaction of his needs, which means that the service provided must meet the client's expectations. This article will examine how consumers perceive the services they receive in certain healthcare facilities. A standardized quality assessment questionnaire, Servqual, was used for data collection. The results are processed using statistical research methods. The results are expected to help analyze the critical points of the health system's service supply chain, thereby improving service delivery quality.

Keywords: supply chain, healthcare system, quality, services, servqual.

JEL Classification: I11, I12.

Introduction

The Covid-19 pandemic has created many challenges in all spheres of national life. The COVID-19 pandemic has had a strong negative impact on the demand for healthcare systems, the use of resources and the functioning of healthcare facilities themselves (Yin et al., 2023). This has been particularly felt in healthcare institutions. They have been under tremendous pressure (Brambilla et al., 2021). The sudden increase in the number of patients has tested the resilience of healthcare facilities and the adequacy of the management models used. Research shows that healthcare facilities need to assess the resources at their disposal to provide emergency care (Capolongo et al., 2020).

The Covid-19 pandemic has become a challenge for healthcare systems worldwide. To contain a pandemic, a hospital must be structured in a robust way and have rapid solutions. Countries with more resilient systems were able to adapt to change and were therefore better able to cope with the pandemic and its consequences (Rigotti et al., 2022). The resilience of countries in responding to the health consequences of the COVID-19 pandemic has varied considerably, both in terms of the ability of countries to manage their health systems and in

terms of the proactivity of those systems. Coordination mechanisms proved to be crucial for damage control, hospital costs and health services (Lucifora, 2023). The pandemic has underlined the structural weaknesses of health systems and the inequalities in the level of health care in different areas and countries (Biel et al., 2023).

Supply chain resilience has received growing attention in recent years, as a host of new risk factors – from climate change to cyber security and infectious diseases – have emerged and pose a serious threat to business performance (Hossain et al., 2022).

The healthcare sector is one of the most important areas of a country's life, as it impacts on other areas and has medical, social, political, business and financial implications (Javed et al., 2019). Providing care that is patient-oriented is an important objective in the modern healthcare industry (Perera & Dabney, 2020).

1. Literature analysis

The concept of service

What constitutes a service has been argued for decades. The concept of service has been explored in disciplines ranging from economics to anthropology. The term

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service can be used in many contexts: it can be an intangible product, a benefit, a value created. It can also be a process, a related action. This paper is based on the definition that a service is an interactive process that is realized through a delivery system in a way that creates value for the parties involved in the process (Skačkauskienė & Vestertė, 2018).

By assessing the quality of operations, we can also measure the efficiency of our services, identify problems and provide the best possible service for all our customers (Mardani et al., 2015).

Any organization seeking to grow and develop in the industry must realize that quality of service and customer satisfaction are crucial success elements (Pakurar et al., 2019).

The concept of healthcare quality

Quality of health services is a key principle of health policy at both national and international level (World Health Organization [WHO], 2018; WHO/OECD/World Bank, 2018). The authors outline the principal arguments for focusing on quality of care: increasingly visible inconsistencies in service delivery; rising public expectations; the realization that without a focus on quality, patient satisfaction will not be achieved; and the understanding that there is a need for reliable services that can function effectively in complex emergencies. Institutions need to adapt to and meet the demands of their environment and working conditions in order to operate efficiently (Hampel, 2021).

Quality is a relative concept and its interpretation depends on who defines it and from which point of view (Javed et al., 2019). Finding a single definition of quality in healthcare is difficult. In the past, the concept has been formulated solely by doctors and has been quite narrow. Nowadays, patients and society are involved. Therefore, when trying to clarify the meaning of the quality of health services, we can refer to the information provided by WHO (2018): health services around the world should be efficient, safe as well as patient-centered.

Healthcare is crucial to all human well-being, which is why the quality of the services provided is of paramount importance on a global scale. Patients' knowledge and sophistication are increasing, and so is pressure on healthcare providers (Singh & Dixit, 2020).

Researchers are constantly carrying out studies to investigate the quality of services provided in the healthcare system and to find the causes of poor quality. In India, researchers have sought to confirm the link between internal service quality customer satisfaction, and organizational performance. Analysis of the results showed that professionalism, a quality environment, and staff competence are the most influential factors in performance (Srivastava & Prakash, 2019). The survey results also show that the perceived quality of healthcare, patient experience, and patient satisfaction are closely interrelated. Quality services lead to happy patients, who increase their loyalty by a corresponding level of loyalty (Singh & Dixit, 2020).

According to Ovretveit J., there are three dimensions of quality that are recommended for service providers to consider:

- Patient-perceived quality is what patients expect from healthcare providers. It also includes the patient's expectations of the services they expect to receive. It should be noted that the patient values the emotional aspect of care more than the organization of the service itself. They value attention, respect, confidentiality, empathy, and communication.
- Professional quality evaluates the competence of the services provided, the standards of care, and the adequacy of services to meet patients' needs. For the assessment of professional quality, audits are the most common approach.
- Quality of management is defined as the efficient use of resources in compliance with the relevant orders. In this case, the performance of the quality system is evaluated in accordance with the institution's internal regulations and approved standards.

Quality management of healthcare services

The concept of quality of care emerged in healthcare in the mid-19th century. The public perception is that the provision of quality services ensures good future outcomes. Patients are most concerned about the quality of healthcare facilities and the efficiency of the services they receive. If the quality of the services provided by the hospital in question is not satisfactory, they will look elsewhere for those services. Against this background, healthcare institutions need to improve the quality and efficiency of healthcare services in order to retain existing patients and attract new ones (Mardani et al., 2015).

In service industries, service quality always remained one of the key factors manifesting the successful management of customer relationships and value creation in the market (Javed & Ilyas, 2018).

A review of the results of some surveys shows that a significant proportion of patients are dissatisfied with the quality of care they receive. This increases the importance of assessing the quality of health services. In many cases, the evaluation of the quality of health provision can be very significant. It is relevant from the point of view of providers, service recipients, and other institutions involved (Estiri et al., 2023).

Healthcare institutions are organizations that aim to provide medical care at a certain level of quality and safety (Morales-Burton & Lopez-Ramirez, 2022). Quality assurance of medical services is a complex issue that can be approached from a variety of perspectives and methods. The most significant factor is believed to be the human factor – the relationship between staff and patient (Strzelecka et al., 2021). Managing and organizing health services are complex processes, and ways to guarantee patient satisfaction are constantly being sought. A study by Dorigan (2022) shows that healthcare directors are looking for ways to encourage staff to provide a high-quality service that ensures patient satisfaction and

loyalty (Dorigan, 2022). The quality of healthcare has always been important. It can only be effectively implemented if staff are provided with the right environment and tools. Only then can staff perform their duties properly (Mehmood et al., 2022). Patients' positive experience of the services they receive is a measure of how health services are evaluated. Studies in different countries show the proportion of patients who are dissatisfied with their healthcare (Biresaw et al., 2021). Patient satisfaction is a measure of how much a patient is pleased with the care they have received from their healthcare organization. Patient experience is one of the most significant factors affecting the success of a healthcare institution (Manzoor et al., 2019). Proper attention to the relationship between patients and medical staff can help avoid complaints and misunderstandings about the provision of healthcare (Espinoza-González et al., 2021). Patient opinion surveys are a widely used practice. These surveys measure basic aspects of the performance of healthcare facilities and, by extension, of the healthcare system as a whole. They are also a prerequisite for designing and developing patient-centred healthcare and an essential component of quality improvement programs (Borowska et al., 2023).

As we know, healthcare services are organized and delivered in both private and public institutions. So what are the key differences between these institutions and the quality of the services they provide? Patient surveys show that one of the reasons for choosing a private facility is shorter waiting times compared to a public facility (Sulaiman et al., 2022).

Hospitals are a crucial part of the medical and healthcare system, which can be divided into two types of sub-systems: public and private hospitals (Yin et al., 2023). The literature analysis should also mention the job satisfaction of staff working in the public and private sectors. Studies show that staff working in the private sector are more positive about their working environment and motivational system. It can be assumed that these professionals are better placed to provide quality service (Haider et al., 2022). The existence of these facilities creates a competitive environment. It is therefore necessary for the institutions to cooperate and create an attractive image of the institution. The aim is to ensure patient loyalty and satisfaction with the services they receive. Having a high quality of service is likely to ensure patient satisfaction and loyalty. The results of the study showed that the image of the hospital influenced patient satisfaction. Also, high service quality is directly proportional to patient satisfaction and loyalty (Asnawi et al., 2019). The public and private health sectors could be a tool to improve the quality of services. Studies have shown that public-private partnerships would be useful to improve the quality of medical care (Ferruzo et al., 2022).

One more healthcare provider is a pharmacy. We know, that pharmacists are those who work in the healthcare system and provide pharmaceutical services. There are countries around the world where pharmacists have to provide patient care services (Ntani & Tchue, 2022).

The role and function of pharmacists in the healthcare system have changed dramatically over the last half-century. They not only dispense medicines but are increasingly empowered to provide patient-oriented services. Pharmacists provide professional advice, participate in major healthcare programs and liaise with other professionals in the healthcare system. These professionals are responsible for the safe and effective use of medicines and respond to patients' requirements and requests (Oladipo et al., 2022). Pharmacists in particular have been targeted during the pandemic. They were included in teams with doctors and nurses to solve problems more quickly (Liu et al., 2021). Pharmacists, as a crucial part of the healthcare team, were responsible for working with Covid-19, regardless of their practice location (Ibrahim et al., 2022).

2. Research methodology

This pilot study aims to assess the validity of the Servqual questionnaire in analyzing the quality of services provided in the healthcare system and the satisfaction of clients with the services they receive. The analysis presents the results of a statistically processed survey of 60 respondents.

The study asked consumers how they perceive the services provided in healthcare facilities. The institutions evaluated were: public healthcare institutions, private healthcare institutions, and pharmacies.

A standardized quality assessment questionnaire, Servqual, was used for data collection. The Servqual method was chosen because it is the most commonly used questionnaire for assessing the quality of services in the healthcare sector. In addition, the Servqual method is used to assess the quality of the services provided against standardized parameters. The Servqual method enables the patient's expectations to be known and the provider to identify discrepancies and implement corrections. It allows the executive staff of medical institutions to modify elements of medical routines, increasing the quality of the services offered, and resulting in higher patient comfort and compliance (Jonkisz et al., 2022). This method is based on five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Each dimension contains statements describing it. Respondents were asked to tick one answer choice for the statement (strongly agree, agree, partly agree, neither agree nor disagree, partly disagree, disagree, strongly disagree). Based on these dimensions, the service level is measured by comparing customers' experiences and understanding of various aspects of service quality (Sharifi et al., 2021). The results of the survey were processed using statistical methods. The results of the assessment of each dimension are described below. Also, the spread of the results along each dimension is shown in the tables. The tables contain only positive responses to the statements (strongly agree and agree).

3. The results of the research

Demographics

The changes in health systems and health professionals in recent years show the need to assess the quality of care and patient safety. Subjectively expressed opinions of patients are treated as acceptance of the current state of affairs or the need to introduce changes in a given area (7).

The pilot study interviewed 60 subjects aged between 18 and 65. The largest group of interviewees was in the 26–35 age group, which accounted for 36.7% of all participants. 45 (75%) were women and 15 (25%) were men. The majority of respondents indicated that the need for health services was due to the needs of adults, not children. 53% of participants reported having children of a wide range of ages. Also, the majority of the respondents – 54 (90%) were urban respondents and only 6 (10%) were villagers.

Results by dimensions

Tangibles

This dimension analyses the overall attractiveness of the physical facilities, the ease of access, the modernity of the establishment's equipment, the cleanliness of the staff, and the appropriate working attire.

In terms of the modernity and up-to-dateness of the institution's environment, the most frequent answer chosen was agree. 45% of the votes were given to the private medical institution and 46.7% to the pharmacy. For the state-owned facility, the most popular option was the "somewhat agree" option, chosen by 33.3% of respondents.

The results of the survey showed a unanimous opinion on the cleanliness of the premises. All agreed that the premises were clean and tidy. The private establishment received 45%, the pharmacy 51.7% and the public establishment 55% of the ratings.

Regarding the dress and cleanliness of the staff, all respondents unanimously strongly agreed. The private clinic received 51.7% of the votes, the pharmacy 53.3% and the public clinic 46.7% votes.

Respondents were asked to rate whether they thought the equipment in the facility was modern. Participants agreed that the equipment in private medical institutions (40%) and pharmacies (36.7%) is modern. As regards public medical facilities, 46.7% of responses indicated that they only partially agreed with this statement.

Another question in this section asked whether transport access to the establishment is convenient for clients. The results were unanimous. Respondents strongly agreed with this statement, giving 43.3% of all responses to the private facility, 55% to the pharmacy, and 41.7% to the public provider. The percentage distribution of results is shown in Table 1.

In Table 1, the evaluation results show that private medical institutions were the most preferred. Pharmacies are still not badly rated. Public health centers have the lowest percentages.

Table 1. Results for the Tangibles dimension

	Private institution	Pharmacy	Public institution
Equipment in the facility is modern	75.0	56.7	40.0
The premises are clean and tidy	90.0	85.0	81.7
The environment is modern and contemporary	81.7	73.4	45.0
The staff are dressed neatly	90.0	93.3	86.7
Convenient access to the institution	68.3	83.3	70.0

Reliability

The reliability dimension aims to find out whether services are provided in a timely and quality manner and whether patients receive timely information. The survey data show that clients received up-to-date and timely information from a private medical institution and a pharmacy (45% and 38% respectively). In the public health facility, clients only partially agree on the timeliness of the information received (36.7%).

Clients also indicated that in case of problems, they would get reassurance in the private clinic (38.3%), which is 30% in the public clinic, while the pharmacy was mainly neutral (30%). The percentage split of responses is shown in Table 2.

Table 2. Results for the Reliability dimension

	Private institution	Pharmacy	Public institution
The required information was received within the specified time	86.7	68.3	70.0
Problems are resolved calmly	61.6	43.3	46.7
The institution is trustworthy	71.7	65.0	61.7
Services are always provided on time	81.7	66.7	43.3
Medical records are accurate and clear	58.3	58.3	55.0

The results for the reliability dimension also show a preference for private institutions. It is particularly positive for the items relating to the provision of information and services in the expected time.

Responsiveness

The responsiveness section of the questionnaire asks about staff behavior – provision of information, friendliness with customers, and speed of service. Clients strongly agreed that both the staff of the private institution and the pharmacy are kind (38.3% and 40% respectively). In the case of public facilities, 21.7% of clients strongly

agreed, while 36.7% of respondents only partially agreed on the friendliness of staff in public facilities.

Regarding the response of staff to customer requests, 41.7% and 38% of respondents rated the private establishment and the pharmacy respectively as agreeing with this statement. Meanwhile, for the public institution, 30% agreed and 41.7% of the respondents partially agreed with this statement.

45% and 40% of respondents agreed that the staff at the private clinic and the pharmacy, respectively, provided services quickly. Meanwhile, 31.7% agreed that the staff in the public clinic provided services quickly, while 36.7% of participants partially agreed with this statement (Table 3).

Table 3. Results for the Responsiveness dimension

	Private institution	Pharmacy	Public institution
Information on the timing of services	66.7	56.7	55.0
Staff provide services quickly	78.3	80.0	45.0
The staff are kind and friendly	70.0	73.3	55.0
Staff always responds to requests	71.7	71.6	51.7

Analyzing the dimension of responsiveness, we can see that two of the four statements are more favorably rated by the pharmacy. The least positive evaluation is again given to public medical institutions.

Assurance

The Servqual questionnaire also measures the assurance of the service provided. The aim is to analyze whether the client feels safe and confident in the staff. In addition, the purpose is to assess whether the staff of the establishment have the right conditions to work well in their role.

The results of the survey showed the feeling of safety in the establishment, with all choices agreeing with the answer. 45% of the respondents agreed with the statement at a private center, 53.3% agreed at a pharmacy, and 35% agreed with a feeling of being safe at a public clinic.

Regarding trust in the staff of the institution, again all respondents chose "I agree". 45% of participants rated the private medical institution, 53.3% preferred the pharmacy, and 45% the public institution.

Another important issue in this dimension was the provision of adequate conditions for staff to perform quality services in the establishment. The analysis of the results showed that an equal 35% of clients strongly agreed and agreed with this statement in the private clinic. 38.3% agreed with the statement in the pharmacy. Only 20% agreed and 43.3% partially agreed with the statement regarding the provision of appropriate conditions in a public institution (Table 4).

Table 4. Results for the Assurance dimension

	Private institution	Pharmacy	Public institution
Trust in the staff of the institution	71.7	70.0	65.0
Feeling safe in the institution	78.3	80.0	61.7
The staff are polite	78.4	80.0	50.0
Staff have all the conditions they need to do their job well	70.0	66.6	46.7

The analysis of the results of the assurance dimension shows that the pharmacy scores highest when it comes to the courtesy of the staff and the feeling of security in the place. The private medical establishment scores highest in terms of the facilities provided to staff and trusts in the staff. In public health facilities, the least favored are the opportunities for staff to do their job well.

Empathy

The last dimension of the questionnaire is empathy. The questions in this part of the tool are designed to find out whether the needs of the client are being met in the establishment and whether the clients are receiving enough attention from the personnel.

When it comes to the question of the individual attention received by patients, the results unambiguously show the advantage of a private institution. 41.7% of clients strongly agree with this statement, while 36.7% chose the agree option. In terms of pharmacy results, 36.7% of patients chose the agree option. For the public clinic, 36.7% chose the partially agree option.

Participants' opinions on how institutions take care of their needs as clients showed strong agreement with pharmacy (40%). Private institutions were agreed with by 41.7% and strongly agreed with by 33.3%. 16.7% of respondents agreed with 16.7% and 46.7% agreed only partially with 46.7% of respondents on the care of clients by public institutions (Table 5).

Table 5. Results for the Empathy dimension

	Private institution	Pharmacy	Public institution
Receiving personalized attention	78.4	61.7	50.0
Getting individual attention from staff	71.7	66.7	51.7
The staff cares about the client's needs	75.0	66.7	41.7

The results of the empathy dimension demonstrate an unequivocal preference for a private treatment provider.

Unfortunately, public medical institutions received the least supportive rating on all questions.

Taken together, the results of the survey show that in the vast majority of cases, private medical institutions lead the way. Pharmacies were more favorably rated on some questions, but this did not change the overall positive trend. Unfortunately, we can see that public medical institutions/clinics were the worst performers. In most cases, they received the highest scores on the “partly agree” option.

Conclusions

The obtained results can contribute to a better understanding of patients as well as the improvement of health systems in the form of new healthcare reforms, as well as to make progress in educating health workers on how to communicate with patients.

Quality control policies and processes should be strengthened in healthcare organizations.

The study revealed a number of clear trends in the healthcare delivery process. It also pointed to directions for future research:

- The analysis of the literature has shown that recent events (Covid-19 disease) have highlighted a greater need to analyze and evaluate the quality of healthcare services provided.
- The analysis of the research carried out shows that the search is still on for appropriate ways and methods to measure service quality as accurately as possible. The most common approach used by researchers is the Servqual method. The Servqual approach allows the patient’s expectations to be known and the provider to identify discrepancies and draw appropriate conclusions. This method allows the executive staff of healthcare settings to modify elements of medical procedures, which improves the quality of the care provided and increases patient satisfaction (Jonkisz et al., 2022).
- The Servqual approach was also used for this pilot study. 60 respondents were interviewed. The survey finds that respondents have a largely positive (strongly agree or agree) view of private medical providers. Pharmacies came second in terms of approval, with public medical institutions coming last. It should be noted that public institutions received in most cases a “agree partially” option. This response is somewhat ambiguous and encourages a search for reasons.
- Such an unequivocal choice of private institutions demonstrated by the respondents during the research showed the strengths of private institutions and the weaknesses of public clinics. Respondents particularly positively evaluated the cleanliness of private institutions, the provision of information and services on time, as well as the appropriate conditions for employees to do their jobs well. Meanwhile, public institutions received very

few positive evaluations on these points. It can be concluded that public hospitals have more patients than private ones, so there are queues and services are delayed or moved. In addition, private institutions are likely to have more financial resources and therefore are able to fully provide for their staff. As a result, the quality of services and patient satisfaction decrease.

- It should be noted that during the survey, no institution received a negative choice (disagree or completely disagree). It can be inferred from this that the situation in state institutions, although not very positively evaluated, is not very bad.
- Comparing the dimensions of the questionnaire with each other, the Empathy dimension was the least favorably evaluated. Heads of institutions, and decision-makers should pay attention to improving this dimension.
- During the study, the literature on the assessment of the quality of healthcare services in the states was examined. It has been noted that Iran, Pakistan, India, and African countries (mostly Ethiopia) are among the countries that conduct the most such research. Such results lead us to believe that quality healthcare services are a problem in the mentioned countries and ways to solve those challenges are being sought. This could be another direction of scientific research.

In summary, the results show that 60 respondents were sufficient to see the prevailing customer opinion. Furthermore, it can be concluded that the questions in the questionnaire were relevant and appropriate, as no questions were left unanswered. In view of this and the information available in the literature, the Servqual questionnaire is an appropriate tool for assessing service quality. Especially in the healthcare sector.

Disclosure statement

The authors do not have any competing financial, professional, or personal interests from other parties.

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