

The Impact of Outpatients Service Quality on Patients' Satisfaction in Benha and kafr El-Sheikh University Hospitals: A Comparative Study

Sabry A. Salem^a, Rasha S. El-Desouky^a, Hala A. Abed^a,
Basma M. Hani^a, Hoda S. Abd El-Hamid^b

Abstract:

Background: Patients' satisfaction represents an important indicator for the quality of health care delivery, and it is a widely accepted factor which needs to be studied repeatedly for better functioning of health care systems. Objectives: to assess the impact of outpatient service quality on patient satisfaction in Benha and Kafr El-Sheikh University Hospitals. **Subjects and Methods:** A comparative cross-sectional design was conducted among six hundred outpatients (341 from Benha and 259 from Kafr El-Sheikh). Data were collected using a structured interview questionnaire adapted from SERVQUAL, covering service quality dimensions and satisfaction domains. **Results:** About half of the patients were satisfied with outpatient services. Satisfaction was highest with facilities and environment (60.4% in Benha, 64.5% in Kafr El-Sheikh) and lowest with administrative staff (36.4% and 38.6% respectively). Significant differences between hospitals were observed in service procedures, treatment, and physicians' and nurses' performance ($p < 0.05$), while no significant differences were found for facilities, administrative staff, or health information. Correlation analysis showed that tangibility, reliability, and assurance were positively associated with patient satisfaction, whereas responsiveness and empathy were not. **Conclusion:** patient satisfaction levels were moderate, with notable variations between hospitals. Enhancing communication, reducing waiting times, improving administrative efficiency, and strengthening staff-patient interaction is recommended to improve satisfaction. Further studies using probability sampling and longitudinal designs are needed to confirm these findings.

Keywords: Service Quality; Patient's Satisfaction; Benha University Hospital; Kafr El-Sheikh University Hospital.

^a Public Health Community,
Environmental and Occupational
Medicine Department, Faculty of
Medicine Benha University, Egypt.

^b Community, Environmental and
Occupational Medicine
Department, Faculty of Medicine
Kafr El-Sheikh University, Egypt.

Corresponding to:
Dr. Hoda S. Abd El-Hamid.
Community, Environmental and
Occupational Medicine Department,
Faculty of Medicine Kafr El-Sheikh
University, Egypt.
Email: hoda.sa3d1990@gmail.com

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Introduction

Quality of health care is a vital component of an efficient health system, and continuous evaluation of patients' perceptions of received services is essential for improving quality⁽¹⁾. Patients' experiences represent a useful basis for enhancing health services, as satisfaction is widely accepted as a key indicator for quality-of-care delivery. It should therefore be studied repeatedly to ensure better functioning of health care systems⁽²⁾. Patients are the best judges of care quality, and factors influencing their satisfaction must be considered when planning improvements according to their needs⁽²⁾. Patient satisfaction enhances compliance with medical prescriptions, facilitates early recovery, and provides valuable feedback for health care providers to identify strengths and deficiencies in service delivery, this in turn encourages providers to respect patients' rights and involve them in treatment decisions⁽³⁾. Several determinants influence satisfaction with outpatient services, including staff professionalism, interpersonal communication, adequacy of information and education provided by physicians, examination time, technical staff skills, waiting time, and appointment delays. Moreover, infrastructure and clinic facilities are crucial factors shaping patient satisfaction⁽⁴⁾. Outpatient clinics serve as the main gateway to hospital services, with 80% of hospital clients globally attending outpatient departments. Thus, the quality of outpatient care strongly reflects the overall quality of hospital services. Improved outpatient services are particularly crucial for achieving health gains among vulnerable populations⁽⁵⁾.

Objectives

- To examine the impact of service quality dimensions on patients' satisfaction.
- To assess and compare the quality of services at Benha and Kafr El-Sheikh University Hospitals.

- To assess and compare outpatients' satisfaction with medical care received in the outpatient clinics at Benha and Kafr El-Sheikh University Hospitals.

Methodology:

Study design and setting: A comparative cross-sectional study was conducted on a total sample of six hundred patients attending the outpatient clinics at Benha and Kafr El-Sheikh University Hospitals, seeking medical services and aged above 18 years. The fieldwork was carried out from April 1, 2023, to March 31, 2025.

Sample size: The sample size was calculated using Epi-Info (Epidemiological Information Package) software version 7.2.5.0. Based on a previous study (6) that reported a satisfaction rate of 85.1% among outpatients, with a margin of error of 5% and a 95% confidence level, the minimum required sample size was 195. To allow for potential non-response, dropouts, and missing data, and to increase the validity of the study results, the final sample size was adjusted to six hundred patients.

Sampling technique: Hospitals were selected by convenience sampling, primarily due to accessibility and feasibility constraints. While this approach ensured timely data collection, it may introduce selection bias and therefore represents a limitation of the study. Within each hospital, outpatient clinics were stratified into medical and surgical specialties, and three clinics were randomly chosen from each stratum. In each selected clinic, all patients fulfilling the inclusion criteria and consenting to participate were recruited consecutively until the required sample size was achieved.

Tool of Data Collection:

Data was collected using three parts:

Part 1: Demographic and socioeconomic questionnaire:

This included patient characteristics such as age, sex, residence, educational level,

occupation, income, and usual source of health care ⁽⁷⁾.

Part 2: Patient satisfaction questionnaire:

This assessed satisfaction across eight domains: facilities and environment, service procedure, physician performance, nursing staff performance, administrative staff performance, treatment effect, and information provided to patients. The questionnaire included fifty-one items, with a maximum score of 153. A total score ≥ 115 ($\geq 75\%$) indicated satisfaction, while a score < 115 ($< 75\%$) indicated dissatisfaction ⁽⁸⁾.

Part 3: Service quality questionnaire (modified SERVQUAL scale):

This tool measured five service quality dimensions: tangibility, reliability, responsiveness, empathy, and assurance. The questionnaire contained 22 items rated on a **3-point Likert scale** (0 = disagree, 1 = sometimes, 2 = agree). The maximum possible score was forty-four. For overall classification, scores ≥ 35.2 ($\geq 80\%$) indicated “satisfied,” scores between 26.4 and 34.8 (60%–79%) indicated “somewhat satisfied,” and scores < 26.4 ($< 60\%$) indicated “dissatisfied” ⁽⁹⁾. The modification from the original SERVQUAL 5-point scale to a 3-point scale was made to simplify patient responses; however, this adaptation may limit comparability with other studies and is acknowledged as a limitation ⁽⁹⁾.

Results:

Table (1) compares the sociodemographic characteristics of patients attending outpatient clinics at Benha and Kafr El-Sheikh University Hospitals. The two groups showed no statistically significant differences in their sociodemographic characteristics. The median age was comparable (45 vs. 43 years), with males representing 57.2% in Benha and 62.9% in Kafr El-Sheikh. In both hospitals, most patients were married, resided in rural areas, and belonged to extremely low or low social classes.

Ethical Consideration

An approval from Research Ethics Committee in Benha faculty of medicine was obtained **{M.D.1.6.2023}**.

An approval was obtained from the Research Ethics Committee, Faculty of Medicine, Benha University (Ref: M.D.1.6.2023). Written informed consent was secured from all participants after explaining the aim, design, setting, duration, and procedures of the study. Confidentiality and voluntary participation were assured.

Data Management

Data were coded and entered SPSS version 22 (SPSS Inc., Chicago, IL, USA).

- Normality was evaluated using Kolmogorov–Smirnov test; most variables were not normally distributed.
- Descriptive statistics included median and interquartile range (IQR) for quantitative data, and frequency with percentages for qualitative data.
- Group comparisons were performed using the Chi-square test for categorical variables and the Mann–Whitney U test for quantitative variables.
- Spearman’s correlation analysis was used to assess associations between variables.
- A p-value ≤ 0.05 was considered statistically significant.

Table (2) represents that the distribution of patients across different outpatient clinics at Benha and Kafr El-Sheikh University Hospitals reveals notable differences in service utilization patterns. In Benha University Hospital, most patients (59.5%) attended surgical clinics, with the highest proportions visiting general surgery (22.3%), urology (19.9%), and obstetrics and gynecology (17.3%) clinics. Conversely, 40.5% of patients attended medical clinics, particularly chest (27.6%) and psychiatric/neurological (9.4%) departments. At Kafr El-Sheikh University Hospital, a slightly higher

proportion (61.4%) sought care from medical clinics, with internal medicine (23.9%) and chest (19.9%) being the most visited. Meanwhile, 38.6% attended surgical clinics, with general surgery (15.8%) and orthopedics (12.3%) representing the largest groups.

Table (3) shows that there were no significant differences between the two hospitals regarding facilities, administrative staff, and information given ($p > 0.05$). In contrast, Benha University Hospital achieved significantly higher satisfaction in service procedure, treatment, doctors, and nursing staff performance, as well as total satisfaction ($p < 0.05$).

Table (4) and Figure (1) reveal that Benha University Hospital scored significantly higher than Kafr El-Sheikh University Hospital in reliability, responsiveness, empathy, assurance, and overall service quality ($p < 0.05$), while no

significant difference was observed in tangibility ($p = 0.264$).

Table (5) revealed no significant difference between Benha (69.8%) and Kafr El-Sheikh (68.0%) hospitals regarding tangibility. However, satisfaction levels were significantly higher in Benha compared to Kafr El-Sheikh in reliability (82.7% vs. 74.5%), responsiveness (75.7% vs. 66.0%), empathy (68.6% vs. 57.1%), assurance (73.5% vs. 65.8%), and overall service quality (73.6% vs. 64.1%).

Table (6) and Figure (2) demonstrate that Benha University Hospital achieved significantly higher median scores than Kafr El-Sheikh University Hospital in reliability, responsiveness, empathy, assurance, and the overall quality score ($p < 0.05$). However, no statistically significant difference was found between the two hospitals regarding tangibility ($p = 0.264$).

Table (1): Comparison Benha and Kafr El-Sheikh University Hospitals regarding Socio demographic characteristics:

Studied variables		Benha University Hospital N =341 %		Kafr El-Sheikh University Hospital N =259 %		Significance test	P-value
Age Median (IQR)		45 (33-58)		43 (31-54)		U	0.481
Sex	Female	146	42.8%	96	37.1%	$\chi^2 = 2.018$	0.155
	Male	195	57.2%	163	62.9%		
	Single	11	3.2%	5	1.9%	$\chi^2 = 1.575$	0.665
Marital status	Married	296	86.8%	224	86.5%		
	Divorced	17	5.0%	13	5.0%		
	Widowed	17	5.0%	17	6.6%	$\chi^2 = 3.826$	0.148
Educational Level	Illiterate	31	9.1%	36	13.9%		
	Middle	94	27.6%	62	23.9%		
	High	216	63.3%	161	62.2%	$\chi^2 = 3.983$	0.136
Jobs	Non- working	135	39.6%	94	36.3%		
	Manual worker	137	40.2%	124	47.9%		
	Professional	69	20.2%	41	15.8%	$\chi^2 = 0.493$	0.483
Residency	Rural	201	58.9%	160	61.8%		
	Urban	140	41.1%	99	38.2%		
	Extremely low	179	52.5%	113	43.6%	$\chi^2 = 5.184$	0.159
Social class	Low	115	33.7%	99	38.2%		
	Middle	28	8.2%	30	11.6 %		
	High	19	5.6 %	17	6.6 %		

*Significant

X2: Chi-square test

U: Mann-Whitney test

Table (2): Frequency distribution of outpatient clinic at Benha and Kafr El-Sheikh University Hospitals.:

		N = 600	%
Benha University hospitals	Medical clinic	138	40.5%
	Chest	94	27.6%
	Rheumatology	12	3.5%
	Psychiatric and Neurological	32	9.4%
	Surgical clinic	203	59.5%
	General surgery	76	22.3%
	Urology	68	19.9%
	Obstetrics and Gynecology	59	17.3%
	Medical clinic	159	61.4%
Kafr El-Sheikh University hospitals	Internal medicine	62	23.9%
	Dermatology	46	17.7%
	Chest	51	19.9%
	Surgical clinic	100	38.6%
	Orthopedic	32	12.3%
	ENT	27	10.4%
	General surgery	41	15.8%

Table (3): Prevalence of total patient satisfaction domains among studied group.

Total patient satisfaction domains		Benha University Hospital		Kafr El-Sheikh University Hospital		Significance test	P-value
		N=341	%	N=259	%		
Facilities and environment	Satisfied	237	60.4%	186	64.5%	$\chi^2 = 0.379$	0.538
	Not satisfied	104	39.6%	73	35.5%		
Service procedure	Satisfied	184	54%	116	44.8%	$\chi^2 = 4.951$	0.026*
	Not satisfied	157	46%	143	55.2%		
Treatment	Satisfied	198	58.1%	124	47.9%	$\chi^2 = 6.142$	0.013*
	Not satisfied	143	41.9%	135	52.1%		
doctors' performance	Satisfied	224	65.7%	139	53.7%	$\chi^2 = 8.902$	0.003*
	Not satisfied	117	34.3%	120	46.3%		
Nursing staff performance	Satisfied	219	64.2%	141	54.4%	$\chi^2 = 5.871$	0.015*
	Not satisfied	122	35.8%	118	45.6%		
Administrative personnel	Satisfied	203	59.5%	142	54.8%	$\chi^2 = 1.329$	0.248
	Not satisfied	138	40.5%	117	45.2%		
Health information provided by health service providers	Satisfied	238	69.8%	167	64.5%	$\chi^2 = 1.902$	0.169
	Not satisfied	103	30.2%	92	35.5%		
General patient satisfaction	Satisfied	186	54.5%	116	44.8%	$\chi^2 = 5.609$	0.018*
	Not satisfied	155	45.5%	143	55.2%		
Total satisfaction score	Satisfied	212	62.2%	135	52.1%	$\chi^2 = 6.089$	0.014*
	Not satisfied	129	37.8%	124	47.9%		

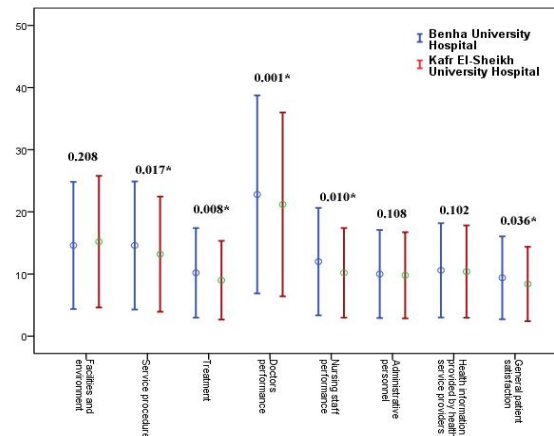


Figure (1): Comparison of Patient Satisfaction Domains Between Benha and Kafr El-Sheikh University Hospitals.

Table (4): Comparison of Patient Satisfaction Domains Between Benha and Kafr El-Sheikh University Hospitals:

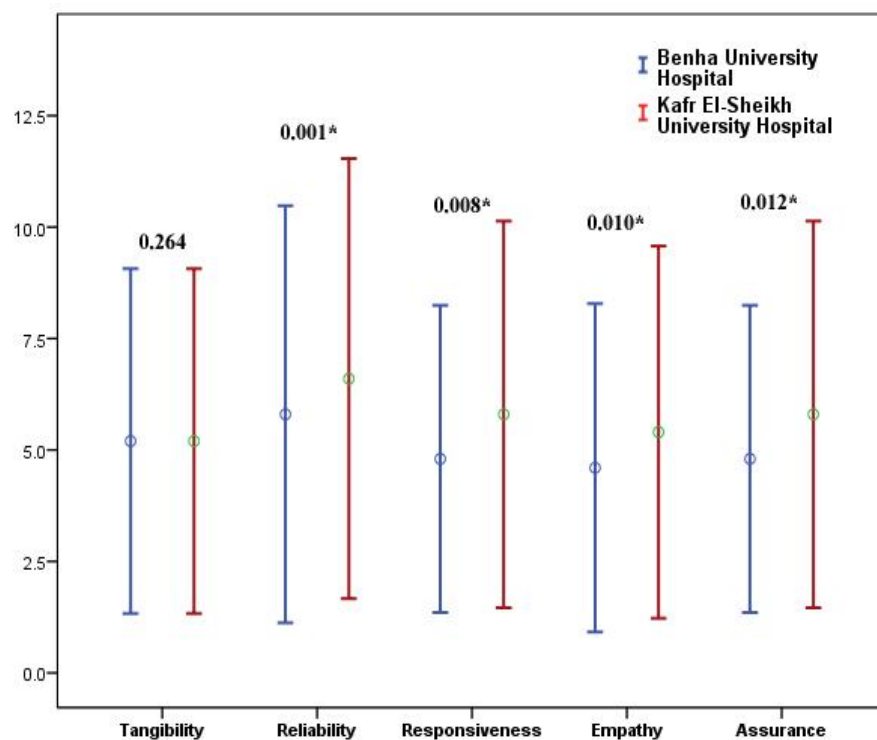
Studied variables	Benha University Hospital		Kafr El-Sheikh University Hospital		P-value
	median	IQR	median	IQR	
Facilities and environment	18	17 – 20	19	18 – 20	0.208
Service procedure	18	16 – 19	16	15 – 18	0.017*
Treatment	13	11 – 14	11	10 – 12	0.008*
doctors' performance	29	26 – 29	26	25 – 27	0.001*
Nursing staff performance	15	12 – 17	13	12 – 15	0.010*
Administrative personnel	12	11 – 14	12	11 – 14	0.108
Health information provided by health service providers	13	11 – 15	13	11 – 13	0.102
General patient satisfaction	12	10 – 13	10	9 – 12	0.036*
Total satisfaction score	126	115 – 138	119	110 – 131	0.031*

Table (5): Prevalence of total quality score among studied groups.

Studied variables		Benha University Hospital		Kafr El-Sheikh University Hospital		Significance test	P-value
		N =341	%	N =259	%		
Tangibility	Satisfied	238	69.8%	176	68.0%	$\chi^2 = 0.281$	0.870
	Somewhat satisfied	94	27.6%	75	29.0%		
	Not satisfied	9	2.6%	8	3.0%		
Reliability	Satisfied	282	82.7%	193	74.5%	$\chi^2 = 13.231$	0.001*
	Somewhat satisfied	50	14.7%	42	16.2%		
	Not satisfied	9	2.6%	24	9.3%		
Responsiveness	Satisfied	258	75.7%	171	66.0%	$\chi^2 = 8.231$	0.016*
	Somewhat satisfied	31	9.1%	41	15.8%		
	Not satisfied	52	15.2%	47	18.1%		
Empathy	Satisfied	234	68.6%	148	57.1%	$\chi^2 = 8.502$	0.014*
	Somewhat satisfied	99	29.0%	104	40.2%		
	Not satisfied	8	2.3%	7	2.7%		
Assurance	Satisfied	261	73.5%	170	65.8%	$\chi^2 = 8.662$	0.013*
	Somewhat satisfied	48	14.1%	54	20.8%		
	Not satisfied	32	9.4%	35	13.5%		
Total quality score	Satisfied	251	73.6%	166	64.1%	$\chi^2 = 11.312$	0.003*
	Somewhat satisfied	68	19.9%	56	21.6%		
	Not satisfied	22	6.5%	37	14.3%		

Table (6): Comparison of Quality Domains Between Benha and Kafr El-Sheikh University Hospitals.

Studied variables	Benha University Hospital		Kafr El-Sheikh University Hospital		P-value
	median	IQR	median	IQR	
Tangibility	6	5 – 8	6	5 – 8	0.264
Reliability	8	6 – 9	6	5 – 8	0.001*
Responsiveness	8	5 – 9	6	5 – 8	0.008*
Empathy	7	5 – 8	5	4 – 7	0.010*
Assurance	8	6 – 8	6	5 – 7	0.012*
Total Quality score	35	29 – 42	30	24 – 35	0.008*

**Figure (2):** Comparison of Quality Domains Between Benha and Kafr El-Sheikh University Hospitals.

Discussion

In the present study, most patients were married (86.6%), which is consistent with *El Sherbiny et al.*⁽¹⁰⁾, who reported that 85.7% of the studied participants were married, and with *De Salins et al.*⁽¹¹⁾, who found that 57% were married. Regarding education, 62.8% of participants had a higher education level, similar to *Yusri et al.*⁽¹²⁾, who found that 62% of their respondents were highly educated. However, other studies reported lower educational attainment, such as *El Sherbiny et al.*⁽¹⁰⁾, where 47.9% had secondary education, and *Ismail and Essa*⁽¹³⁾ where 30% were illiterate and another 30% had secondary education. Most participants in this study were from rural areas, likely because Benha and Kafr El-Sheikh University Hospitals primarily serve nearby villages and provide relatively low-cost healthcare services (Table 1). When comparing satisfaction levels between Benha and Kafr El-Sheikh University Hospitals, categorical analysis (Table 3) showed no statistically significant differences across most studied domains, although Benha tended to have slightly higher percentages. This similarity may be attributed to the fact that both hospitals are public institutions operating under comparable structures, resources, and policies, and both face common challenges such as overcrowding, limited resources, and high staff workloads. However, non-parametric median score analysis (Table 4) revealed significant differences between the two hospitals in several domains, particularly in facilities, service procedures, and physician performance, with Benha generally performing better. This apparent contradiction reflects the different statistical approaches: categorical comparisons may mask subtle variations, whereas median score analysis provides greater sensitivity to differences in patient perceptions. With respect to outpatient environment and facilities, 60.4% of

patients at Benha and 64.5% at Kafr El-Sheikh reported satisfaction (Table 3). These findings are comparable to studies conducted in Saudi Arabia, where the mean satisfaction scores for environment and facilities were 2.8 and 3.0 out of 5 in MOH and private hospitals, respectively⁽¹⁴⁾ and in China, where the mean score was 3.9 ± 0.8 out of 5⁽¹⁵⁾. In contrast, lower satisfaction levels were reported in Pakistan (2.4 ± 1.02 out of 5)⁽¹⁶⁾. Such variations may reflect differences in infrastructure quality, hospital organization, and national health system resources. Regarding service procedures, satisfaction was relatively low (42.5% in Benha and 37.8% in Kafr El-Sheikh). Dissatisfaction was attributed to overcrowding, early registration deadlines, lack of organization, and absence of a computerized hospital information system. Similar dissatisfaction levels were reported by *El Sherbiny et al.*⁽¹⁰⁾ where 58.6% were dissatisfied with service procedures, and by *Amman and Abbas et al.*⁽¹⁶⁾ who found a mean score of 2.5 ± 1.2 out of 5. Conversely, *Ismail and Essa*⁽¹³⁾ found that 75.1% of respondents were highly satisfied, which may be explained by more efficient registration systems in their setting. As for treatment, satisfaction scores were 58.1% in Benha and 57.9% in Kafr El-Sheikh, which aligns with findings from *El-Awady et al.*⁽⁶⁾ in Zagazig University Hospital (mean 2.3 ± 0.45 out of 3). And *Yu et al.*⁽¹⁵⁾ in China (4 ± 0.74 out of 5). These results highlight the importance of clinical performance and communication in shaping patient perception. Table (4) showed that median satisfaction scores differed significantly between Benha and Kafr El-Sheikh University Hospitals in several domains, including facilities and environment, service procedures, and doctors' performance, with Benha generally achieving higher scores. These findings suggest that although categorical analysis in Table (3) indicated broadly similar satisfaction rates, the median score

analysis revealed meaningful distinctions in the intensity of satisfaction. This discrepancy can be attributed to the different statistical approaches: Table (3) relied on categorical comparisons (satisfied vs. not satisfied), which may mask subtle variations, whereas the non-parametric analysis in Table (4) accounted for score distributions, providing greater sensitivity to detect differences ^(17,18). Table (5) further clarified these findings by examining SERVQUAL dimensions. Results indicated that Kafr El-Sheikh performed better in tangibility, while Benha outperformed in reliability, assurance, and overall service quality, with no significant differences in responsiveness and empathy. The higher tangibility scores in Kafr El-Sheikh may reflect its relatively newer infrastructure and modern facilities, which enhance patients' impressions of the environment ⁽²¹⁾. Conversely, Benha's higher reliability and assurance reflects its status as an older, established hospital with experienced staff and structured systems that build patient trust ^(22,23). The similarity in responsiveness and empathy across both hospitals could be explained by systemic challenges such as high patient load and limited staff-to-patient ratios, which reduce the ability to provide personalized care ⁽²⁴⁾. With respect to tangibility, more than half of patients were satisfied at both hospitals (63.6% at Benha and 68.0% at Kafr El-Sheikh). These results are higher than those reported in China (38.2%) ⁽¹⁷⁾. The difference may reflect variations in infrastructure investment and expectations across settings. Total tangibility scores showed a significant difference ($p = 0.044$), with higher satisfaction at Kafr El-Sheikh. However, a study in Pakistan reported a mean tangibility score of 3.7 ± 1.1 , higher than the current study's findings ⁽¹⁶⁾.

Regarding reliability, 82.7% of Benha patients and 76.1% of Kafr El-Sheikh patients were satisfied, with a significant difference ($p = 0.025$). This contrasts with

a study in India where only 14% of patients were satisfied with reliability ⁽¹⁸⁾. The present findings are supported by studies reporting that reliability significantly affects satisfaction ^(19,20), though others found no such relationship ⁽²¹⁾. For responsiveness, satisfaction levels were low at both hospitals (28.1% and 30.5%), with no significant difference ($p = 0.344$). These results align with findings from Ghana ⁽²²⁾, and with studies reporting responsiveness as an insignificant determinant of satisfaction ⁽²³⁾. In contrast, other studies found responsiveness to be a significant factor ⁽¹⁹⁾, suggesting contextual variation in its impact.

As for assurance, Benha recorded significantly higher scores, indicating greater confidence in staff competence and communication. This supports previous research highlighting assurance as a major predictor of satisfaction ⁽²⁰⁾. Concerning empathy, satisfaction levels were similar (58.1% at Benha and 56.0% at Kafr El-Sheikh, $p = 0.877$). This is consistent with results from Saudi Arabia ⁽²⁴⁾, which emphasized the role of empathy in building trust and improving treatment adherence. While some studies reported empathy had no significant effect ⁽²¹⁾, others confirmed its positive influence ⁽²³⁾. The overall quality score showed that 47.8% of Benha patients and 36.7% of Kafr El-Sheikh patients were satisfied. These results are close to findings from Iran (36%) ⁽²⁵⁾, but lower than those from Egypt and Saudi Arabia ^(10,26,27). By contrast, studies in Yemen and Indonesia reported even lower satisfaction rates ^(28,12), reflecting differences in health system performance across countries. Table (6) revealed no significant differences between the hospitals in tangibility, reliability, responsiveness, or empathy. However, Benha achieved significantly higher scores in assurance ($p = 0.044$) and in the total quality score ($p = 0.011$). These findings indicate that, while both hospitals offered broadly comparable services in most dimensions, Benha was

perceived more favorably in terms of patient trust and overall service quality.

Conclusion

- This study revealed that overall patient satisfaction was higher at Benha University Hospital compared with Kafr El-Sheikh University Hospital. Statistically significant differences were observed in service procedure, treatment, doctors' and nurses' performance, general satisfaction, and the total satisfaction score, all favoring Benha Hospital.
- With respect to service quality dimensions, Benha also performed significantly better in reliability, responsiveness, empathy, and assurance, whereas tangibility and the quality of administrative personnel and health information provision showed no significant difference between the two hospitals.
- In conclusion, Benha Hospital demonstrated stronger performance in both interpersonal and procedural aspects of care, while Kafr El-Sheikh University Hospital needs to improve its service delivery, particularly in reliability, responsiveness, empathy, and treatment-related aspects, to enhance overall patient satisfaction.

Recommendation

- 1- Patients should be informed about all methods of treatment, and their opinions should be taken into consideration during selection of the type of treatment.
- 2- Facilitate receiving patient complaints from the hospital in a confidential manner.
- 3- Doctors and nurses should be trained to provide clearer information about treatment, side effects, and patient involvement in decision-making, especially where agreement levels were low (e.g., "taking patient opinion", "drug dosage").

- 4- Strengthen staff training and human resource practices, Doctors and nurses should receive continuous training on communication, empathy, and professional appearance, particularly in domains with statistically significant dissatisfaction (e.g., nurses' attention and administrative staff appearance).
- 5- Application of a computerized Hospital Information system to facilitate registration process and decrease waiting time.
- 6- Patient satisfaction questionnaire should be applied routinely on a regular basis at all clinics at Benha and Kafr El-Sheikh University Hospitals to ensure being updated according to the opinion of patients.
- 7- The results of patient satisfaction questionnaire should be taken into consideration as they reflect directly what the patients feel so that they can identify areas that need to be improved, and quality improvement processes would be initiated.

Conflict of interest

None declared any conflict of interest.

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