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Satisfaction Levels in Teaching vs. Non-Teaching Hospitals – Investigating the impact of medical training environments on patient experience

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Abstract

Background: Two parallel systems that divide medical facilities into teaching and non-teaching facilities are used in Saudi Arabia to deliver healthcare, which results in distinct consequences during patient treatment. Hospitals and educational institutions that offer patient care handle complicated medical issues and incorporate the results of recent research into their daily operations. Medical trainees have a beneficial and bad impact on the dynamics of patient encounters in teaching hospitals. Patient satisfaction is an essential indicator of the quality of healthcare provided.

Aim: To evaluate and compare patient satisfaction levels between teaching and non-teaching hospitals in Saudi Arabia, and investigating how medical training environments influence patient experiences.

Methods: This cross-sectional research was established on conscious patients at multiple hospitals across Saudi Arabia, including both teaching hospitals affiliated with medical schools and non-teaching hospitals. The satisfaction of the participants was evaluated using a questionnaire.

Results: Among 153 recruited patients, 47.1% were from teaching hospitals, whereas 52.9% were from non-teaching settings. The mean±SD of satisfaction and perspective of the patients were 88.34±11.87 and 30.63±3.74, respectively. Teaching hospitals were considerably related to the higher mean scores of satisfaction and perspective of the patients (P=0.01).

Conclusion: The overall patient satisfaction was good, but not optimum. The satisfaction and perspective of patients regarding teaching hospitals was better compared to that for non-teaching hospitals.

Keywords: Satisfaction, Teaching, Non-Teaching, Hospitals, Impact.

Introduction: Healthcare quality is often determined by patient satisfaction, an indicator that determines how certain the level of patient satisfaction with the services and facilities during a healthcare visit is. Among those factors influencing patient satisfaction, the

type of hospital setting itself is mainly influenced by teaching or nonteaching hospitals. Medical schools affiliate their teaching hospitals, which are training grounds for future healthcare professionals, while nonteaching hospitals are not responsible for training doctors anywhere [2].

Some previous studies have examined the comparative outcomes, and patients' experiences in teaching versus nonteaching hospitals. Rosenbaum et al.'s (2019) study of Medicare patients in 339 major teaching hospitals and 2,439 nonteaching hospitals identified that, for example, teaching hospitals tend to invest more in cutting-edge technology and workforce characteristics of better quality, but at an additional cost [3]. Patient experiences in teaching hospitals have dynamics that are negatively and positively affected when medical trainees are present. The educational environment encourages continuous learning, following modern clinical guidelines, and improving quality of care; however, the involvement of students and residents can take the consultation time longer and may be perceived as care provided by a less experienced staff. In a systematic review by Papanikolaou et al. (2006), there was no major difference in the effectiveness of the treatment carried out at teaching and nonteaching hospitals, i.e., the above goal was achieved with equal results between patient outcomes in teaching hospitals and hospital activities involving teaching [4].

Patient satisfaction is also shaped by organizational structures and work environments. Investments in new technology and workforce characteristics associated with higher quality tend to occur first in teaching hospitals. The added value of this additional investment is, however, unclear since teaching hospitals usually have other expenses [3].

Healthcare delivery in Saudi Arabia functions with two parallel systems that separate medical facilities between teaching and non-teaching facilities, thus generating individual effects during patient care. Medical and educational facilities that provide patient care deal with complex medical cases and integrate contemporary research findings into hospital practice. Research indicates that teaching hospitals continuously secure lower patient satisfaction scores than non-teaching hospitals. According to research findings, medical centers that instruct students perform below peer institutions in patient satisfaction surveys despite using equal medical treatment financing [5]. The combination of patient involvement with trainee care appears to cause communication errors and interrupted care sequences, thus creating this difference in performance levels.

Alasiri et al. (2024) performed a systematic review to examine patient satisfaction measurements in Saudi Arabian academic hospitals from January 2012 through October 2022. Medical education and research progress to develop in academic hospitals, but these institutions must enhance their understanding of patient satisfaction improvement methods [6]. The King Khalid Teaching Hospital survey obtained specific patient grievances, indicating that evaluating nursing care quality through patient perspectives is valuable [7].

Multiple research investigations in the literature base analyze how medical treatment outcomes and patient satisfaction differ between teaching centers and non-teaching medical facilities. Medical institutions that deliver medical results with decreased mortality and complication rates commonly belong to the top satisfaction rating group [8]. Patient satisfaction measurement creates challenges for teaching hospitals, yet these institutions demonstrate excellent clinical performance that delivers superior treatment results.

The research gap is wide in comparing patient satisfaction in Saudi Arabian teaching and non-teaching hospitals. The complex cultural and organizational elements, as well

as systemic factors that guide healthcare delivery in the region, emphasize the need for patient experience evaluation specific to Saudi Arabian teaching facilities. Investigative research will enable the development of specific strategies to boost patient satisfaction and healthcare quality in all Saudi Arabian hospitals regardless of educational status.

Patient satisfaction is an important quality indicator of healthcare quality, characterizing to what degree healthcare services are at par or beyond patient expectations [1]. The healthcare system of Saudi Arabia is divided between teaching and non-teaching hospitals, and each of these environments may influence patient experience. Medical schools have a corresponding teaching hospital, which acts as a center for clinical education and research, typically located near a school and Urban Hub Campus, and qualified professional editing and enrichment by medical trainees with an emphasis on advancement, often associated with a special degree. Unlike non-teaching hospitals, they primarily emphasize clinical services without adding medical education [9].

A systematic review by Alasiri et al. (2024) reviewed patient satisfaction within academic hospitals in Saudi Arabia. The findings showed that multiple factors determine inpatient satisfaction in Saudi academic hospitals, such as the quality of nursing care, hospital environment, and communication with healthcare providers. Academic hospitals may sometimes face difficulties providing high-quality care since education and patient services are provided [6].

In Alsaqri (2016), patient satisfaction with nursing care quality was explored from the same place through a cross-sectional survey at King Khalid Teaching Hospital in Riyadh. The questionnaire contained 42 items and determined various nursing care dimensions in 448 patients. The results showed that patients were generally satisfied with the nursing care, except in responsiveness to patient needs and effective communication. While the presence of medical trainees is associated with patient experiences, interactions with students can positively affect satisfaction by providing more attention or negatively affect it depending on student's perception of being too intrusive [10].

Comparatively, non-teaching hospitals in Saudi Arabia have been evaluated for patient satisfaction, particularly concerning the quality of nursing care. Al Anazi (2023) conducted a qualitative review focusing on client satisfaction in Saudi healthcare. The study emphasized that non-teaching hospitals often provide a more streamlined patient experience, with fewer interruptions from educational activities. Patients in these settings reported higher satisfaction levels related to the efficiency of care and the perceived competence of healthcare providers. The absence of medical trainees was associated with more direct and uninterrupted patient-provider interactions, contributing positively to patient satisfaction [11].

The presence of medical trainees in teaching hospitals introduces a dynamic that can positively and negatively impact patient satisfaction. On the one hand, teaching hospitals are often equipped with advanced medical technologies and a diverse team of healthcare professionals, which can enhance patient confidence in the care provided. On the other hand, the involvement of students and residents in patient care may lead to longer consultation times and a perception of being part of a learning process, which some patients might find discomforting. Alasiri et al. (2024) noted that while patients appreciate the thoroughness associated with academic settings, the increased number of healthcare providers involved can sometimes lead to fragmented communication and a lack of continuity in care, adversely affecting patient satisfaction [6].

Additionally, teaching hospitals have the educational need to find the right balance between giving the best possible patient care and academic objectives. In some cases,

this dual mandate may lead to competing priorities, and the needs of trainees may otherwise interfere with the efficiency and delivery of patient care services. For example, patients may experience dissatisfaction when procedures take longer when done by trainees under supervision, as more prolonged procedures can mean longer wait times since they might perceive procedures as inefficient. On the other hand, it is stated that the academic environment has a culture of continuous learning and evidence-based practice, which can positively impact the quality of care. Alsaqri (2016) reported that patients have a sense of value in their ability to contribute to the education of future healthcare professionals and regard their involvement as a meaningful contribution to the medical field [10].

On the other hand, non-teaching hospitals, as they have their primary service focus on clinical services, may provide a more uniform and reliable patient experience. This leaves less time, and in these hospitals, there is no need for educational activities to occur. In these settings, patients usually feel more satisfied because they perceive the care to be more efficient and direct. Although not necessarily lacking an academic environment, teaching hospitals might provide less full access to cutting-edge treatments and access to modern medical research. According to al Anazi (2023), non-teaching hospitals do an excellent job regarding operational efficiency. Still, they may not have protocols or treatment for complex conditions, as seen in academic institutions [11].

Additionally, cultural factors peculiar to Saudi Arabia also impact patient satisfaction to the greatest extent, regardless of the hospital type. As a collectivist society, Saudi society places great importance on family involvement in health care decisions, and hospitals that allow family participation tend to receive higher satisfaction ratings. Gender segregation and culturally sensitive care were also key factors of consideration that can affect patient experiences. Teaching hospitals with their staff varied, international affiliations may occasionally struggle with the alignment with local cultural expectations. Non-teaching non-teaching classes are more localized and might agree better with cultural nuances. According to Alasiri et al. (20234), cultural competence in health care delivery significantly impacts the patient's satisfaction with health care provided if it is provided in a culture consistent with the cultural values and expectations of patients [6].

Methods:

A **cross-sectional comparative study** that was conducted to assess patient satisfaction levels in teaching versus non-teaching hospitals.

Study Setting and Population

The study was conducted in multiple hospitals across Saudi Arabia, including both teaching hospitals affiliated with medical schools and non-teaching hospitals. Inpatients aged 18 and above, admitted for at least 48 hours, who were conscious and able to communicate effectively, were included. Patients admitted for psychiatric care or those in critical condition were excluded.

Tools of Data Collection:

Patient satisfaction levels was measured through use of the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ). Validation of this instrument was

done in the Saudi context and the instrument contains important dimensions of patient care. The responses were recorded on a 5-point Likert scale from "very disagree" to "very agree."

Ethical Considerations

Ethical clearance was obtained from the Institutional Review Board (IRB) of each participating hospital.

Data Analysis

The data was analyzed using SPSS version 26. Overall satisfaction and each subscale was computed with mean scores and standard deviations. Satisfaction levels for teaching and non-teaching hospitals was compared with independent t tests.

Results:

A total of 153 were recruited; more than one-half, 85 (55.6%), were under 18 years old, whereas 4 (2.6%) were older than 60 years. Females represented more than one-half of the sample 83 (54.2%). There were 72 (47.1%) patients recruited from teaching Vs. 81 (52.9%) patients from non-teaching hospitals. Outpatient care was the most provided service to the patients 62 (40.5%), table 1.

Table 1: Characteristics of the patients

		n	%
age	• Under 18	85	55.6%
	• 18–30	27	17.6%
	• 31–45	32	20.9%
	• 46–60	5	3.3%
	• 61+	4	2.6%
Gender	Female	83	54.2%
	Male	70	45.8%
Hospital type	Teaching Hospital	72	47.1%
	Non-Teaching Hospital	81	52.9%
Type of Care Received:	• emergency	39	25.5%
	• outpatients	62	40.5%
	• inpatients	52	34.0%

Satisfaction of the subjects was assessed by 20 questions with five options as answers referring the degrees of satisfaction; the questions and rate of each answer of the participants are shown in table 2.

Table 2: Satisfaction of the participants

	Very unsatisfied		Unsatisfied		Neutral		Satisfied		Very Satisfied	
	n	%	n	%	n	%	n	%	n	%
· I am satisfied with the reception staff's behavior.	1	0.7%	3	2.0%	6	3.9%	51	33.3%	92	60.1%
I am satisfied with the nurses' behavior in this hospital.	1	0.7%	6	3.9%	4	2.6%	64	41.8%	78	51.0%

I am satisfied with the doctors' behavior in this hospital.	1	0.7%	3	2.0%	2	1.3%	65	42.5%	82	53.6%
I am satisfied with the time the doctor spends with me.	1	0.7%	3	2.0%	3	2.0%	68	44.4%	78	51.0%
The doctors give me enough time to ask questions.	1	0.7%	3	2.0%	11	7.2%	58	37.9%	80	52.3%
My questions are answered politely by the doctors.	1	0.7%	3	2.0%	2	1.3%	68	44.4%	79	51.6%
The hospital staff are courteous and polite in their interactions.	1	0.7%	3	2.0%	4	2.6%	66	43.1%	79	51.6%
The hospital environment is clean and comfortable.	1	0.7%	3	2.0%	7	4.6%	66	43.1%	76	49.7%
The hospital staff treat patients with kindness and compassion.	1	0.7%	3	2.0%	6	3.9%	61	39.9%	82	53.6%
I am satisfied with the performance of the nurses and doctor's assistants.	1	0.7%	3	2.0%	2	1.3%	77	50.3%	70	45.8%
The doctors at the hospital are friendly and respectful.	1	0.7%	3	2.0%	8	5.2%	55	35.9%	86	56.2%
I received full attention from the doctors.	1	0.7%	3	2.0%	2	1.3%	65	42.5%	82	53.6%
I can describe my hospital experience as good.	1	0.7%	3	2.0%	2	1.3%	59	38.6%	88	57.5%
I will return to this hospital in the future if I need medical care.	1	0.7%	3	2.0%	5	3.3%	62	40.5%	82	53.6%
I am satisfied with my involvement in decisions related to healthcare.	1	0.7%	3	2.0%	9	5.9%	53	34.6%	87	56.9%
Medical students and residents participate in providing healthcare to patients.	1	0.7%	3	2.0%	3	2.0%	73	47.7%	73	47.7%
I am satisfied with the participation of medical students and residents in providing healthcare.	1	0.7%	3	2.0%	6	3.9%	57	37.3%	86	56.2%
I do not spend a long time waiting for tests or doctor visits.	2	1.3%	3	2.0%	12	7.8%	76	49.7%	60	39.2%

I have confidence in the abilities of the healthcare providers at this hospital.	1	0.7%	3	2.0%	18	11.8%	51	33.3%	80	52.3%
My concerns are taken seriously.	1	0.7%	3	2.0%	12	7.8%	67	43.8%	70	45.8%

The overall satisfaction level of the subjects ranged between 20 and 100 scores, with a mean ±SD of 88.34± 11.87, (Table 3).

Table 3: The overall satisfaction level

	Minimum	Maximum	Mean	Std. Deviation
satisfaction score	20.00	100.00	88.3464	11.87452

The relation between the mean score of satisfaction and demographics revealed one significant relation regarding the type of hospital (P=0.01), where patients from teaching settings reported higher satisfaction score (90.86±12.18) compared to non-teaching hospital patients (86.11±11.2), (Table 4).

Table 4: Relation of satisfaction score to demographic data

		satisfaction score		
		Mean	SD	P value
age	• Under 18	89.61	6.17	
	• 18–30	88.07	9.15	0.283
	• 31–45	86.94	18.28	
	> 45	82.22	25.39	
Gender	Female	88.75	15.04	0.651
	Male	87.87	6.43	
Hospital type	Teaching Hospital	90.86	12.18	0.013*
	Non-Teaching Hospital	86.11	11.20	
Type of Care Received:	• emergency	85.79	14.98	0.249
	• outpatients	88.60	5.77	
	• inpatients	89.96	14.33	

The perspective of the patients was assessed via seven questions with four options as answers; the questions and the frequency and proportion of each question answer are revealed in table 5.

Table 5: Perception of Participants

	disagree		Neutral		agree		Strongly agree	
	n	%	n	%	n	%	n	%
The office environment was clean and comfortable.	0	0.0%	6	3.9%	53	34.6%	94	61.4%
The reception staff were friendly, helpful, and polite.	0	0.0%	8	5.2%	64	41.8%	81	52.9%
The nurse/physician assistant was knowledgeable and professional.	3	2.0%	9	5.9%	69	45.1%	72	47.1%

The nurse/physician assistant was friendly, polite, and respectful.	3	2.0%	80	52.3%	0	0.0%	70	45.8%
The doctor was friendly and polite.	3	2.0%	6	3.9%	74	48.4%	70	45.8%
The doctor gave me his/her full attention during my appointment.	3	2.0%	67	43.8%	0	0.0%	83	54.2%
My visit to the office was a pleasant experience.	3	2.0%	2	1.3%	72	47.1%	76	49.7%

The overall perception score ranged from 17 to 35 with a mean± SD of 30.63±3.7 referring a high perception of the patients, (Table 6).

Table 6: Descriptive statistics of perception to service score

	Minimum	Maximum	Mean	Std. Deviation
perception	17.00	35.00	30.6340	3.74825
Valid N (listwise)				

The relations between perception score and demographics of the participants are displayed in table 7. Patients from teaching hospitals reported a significant higher (P=0.01) mean score of perception (31.46 ±3.75) compared to those from non-teaching settings (29.9±3.62). On the other hand, other variables showed no relation to perception scores.

Table 7: Relation of perception score to demographic data

		Agreement score		
		Mean	SD	P value
age	• Under 18	30.76	2.80	
	• 18–30	31.04	3.49	0.59
	• 31–45	29.84	5.51	
	> 45	31.00	4.90	
Gender	Female	30.92	4.38	0.313
	Male	30.30	2.81	
Hospital type	Teaching Hospital	31.46	3.75	0.010*
	Non-Teaching Hospital	29.90	3.62	
Type of Care Received:	• emergency	30.36	4.51	0.153
	• outpatients	30.13	3.14	
	• inpatients	31.44	3.72	

The perspective of patients is shown in table 8 and revealed that more than one-half of the subjects, 101 (66%), would return to this hospital for future care, and the largest proportion, 76 (49.7%), felt involved in decisions about their care. There, 79 (51.6%) subjects reported the participation of medical students and residents in their care; however, the largest proportion, 55 (35.9%), reported poor communication with the healthcare provider. There, 76 (49.7%) reported feeling completely confident in the abilities of the healthcare providers, and 69 (45.1%) reported that their concerns were taken seriously.

Table 8: Perspective of the participants

Questions		n	%
Would you return to this hospital for future care?	May be	14	9.2%
	No	38	24.8%
	yes	101	66.0%
Did you feel involved in decisions about your care?	• Sometimes	66	43.1%
	• No, not at all	11	7.2%
	• Yes, completely	76	49.7%
Did medical students or residents participate in your care?	May be	19	12.4%
	No	55	35.9%
	yes	79	51.6%
How would you rate the communication from your healthcare providers? (1 = Poor, 5 = Excellent)	1	55	35.9%
	2	32	20.9%
	3	43	28.1%
	4	18	11.8%
	5	5	3.3%
Did you feel confident in the abilities of the healthcare providers?	• Somewhat	74	48.4%
	• No, not at all	3	2.0%
	• Yes, completely	76	49.7%
Did you feel that your concerns were taken seriously?	No answer	9	5.9%
	• Sometimes	68	44.4%
	• No, not at all	7	4.6%
	• Yes, completely	69	45.1%

Discussion:

Teaching hospitals vary from non-teaching ones in terms of service quality, cost, customer satisfaction, and efficiency **[5, 12]**. Also, teaching hospitals are responsible for the training of future healthcare providers and have to deal with various clients and complex illnesses **[5, 13]**. Patient satisfaction is considered an important indicator of the quality of the provided healthcare **[1]**. However, comparing the satisfaction of patients regarding teaching and non-teaching hospitals is scarce in the literature, whereas no previous Saudi research investigated this subject. Therefore, we conducted this study.

The mean score of satisfaction in this research was 88.34 out of 100, which is the maximum score; this mean score indicates a good level of satisfaction, but not an optimum score. The highest levels of satisfaction were recorded regarding reception staff, the overall experience, the friendly treatment of doctors, involvement in decisions related to healthcare, and the participation of medical students and residents in providing healthcare. One research that enrolled 500 patients from a teaching hospital revealed that the highest satisfaction was regarding communication, followed by general satisfaction, then technical quality, time spent with the doctor, and interpersonal manner, whereas the lowest score of satisfaction was detected regarding accessibility and convenience **[14]**.

It was stated that the satisfaction, compliance, and treatment outcomes of patients are influenced by some aspects, including the patient-physician relationship, time dedicated to consultation, communication patterns, and expectations of the patients **[15,**

16]. In our research, more than one-half of patients were very satisfied, and more than one-third were satisfied with nurses' and doctors' behaviors. Almost one-half of the patients and more than one-third were very satisfied and satisfied, respectively, regarding the time the doctor spent with them and giving them enough time to ask questions. However, fewer proportions strongly agree and agreed that nurses and assistants were knowledgeable and professional. Also, less than one-half strongly agreed that the nurses and assistants were friendly, polite, and respectful.

Communication absence with the customer results in a difference between his/her expectations and the perception of the ideal situation **[17]**. In this work, we found a considerable proportion of patients of more than one-third (35.9%) rated the communication with their healthcare providers as poor.

In one analysis focused on Saudi university hospitals, it was discovered that poor medical treatment communication and low medical personnel perceptions about patient satisfaction reduced patient satisfaction **[18]**. Therefore, the suboptimum satisfaction of the patients discovered in this research may return to some gaps that could be reported in their perspective regarding nurses and assistants, as only 45.8% strongly agreed that nurses and physician assistants were friendly and polite. Also, only 54.2% of patients strongly agreed that doctors gave them full attention, whereas none agreed. A previous Saudi study conducted on teaching hospitals revealed negative experiences of patients with nursing care in dimensions of information, caring behavior, and nurse competency and technical care **[7]**.

In one study that assessed the satisfaction of patients before and after the presence of medical students in a general hospital setting, it was found that the overall satisfaction of the patients increased considerably after the presence of the students. Hence, the presence of the medical students positively influenced patients and resulted in an improvement in their satisfaction **[19]**. Similarly, the participation of medical students and residents in providing care to the patients made more than one-half very satisfied (56.2%), and more than one-third (37.3%) were satisfied.

A better understanding of the factors related to patient satisfaction would help the administrators make the appropriate decisions in framing the services **[20]**. We found that the sole determinant of patient satisfaction was the hospital type, where patients managed in teaching hospitals reported significantly greater satisfaction scores compared to non-teaching settings. One analysis focused on patient satisfaction in academic hospitals revealed that the overall satisfaction rate was 78%-95.2% **[6]**. The comparison between teaching and non-teaching hospitals in one study from the USA revealed that outcomes of patients in teaching hospitals were better compared to non-teaching ones, including a lower mortality rate and intensive care admission and readmission **[3]**. Therefore, it seems that teaching hospitals is superior to non-teaching ones.

One study assessed patient satisfaction based on the form of hospital stay in a teaching hospital, and it was found the highest satisfaction was regarding inpatient and emergency service **[21]**. However, we discovered that the type of care provided had no relation to the satisfaction of our patients. In a previous analysis of 17 studies concerned with primary healthcare facilities in Saudi Arabia, it was found that patient satisfaction was linked with educational level and income **[22]**. These two factors weren't investigated in our research; however, none of the personal factors was related to patient satisfaction.

The perception of patients about healthcare services is necessary for improving the quality of care provided to patients **[14]**. The overall perspective and perception of our patients in this research were good, as the mean score was 30.63, whereas the maximum

score was 35. These scores can be attributed to the few gaps regarding the knowledge and profession of nurses, and the treatment of nurses with patients, as more than one-half reported neutral answers regarding nurses being friendly and polite. Furthermore, less than one-half of the patients were strongly agree that their experience in visiting the office was pleasant.

Additionally, in a previous study, the perception of care quality provided to the patients was improved regarding five elements, including friendliness (P=0.003), competence in providing medical care (P=0.049), quality of information provided (P=0.02), amount of time spent with the patient (p50.001) and availability to personally provide care (P<0.001) after the attendance of the medical students **[19]**. Therefore, improving such elements in healthcare settings may improve the perception and perspective of the patients and, as a result, improve patient satisfaction.

Also, we found that the perspective of our patients was significantly higher for teaching hospitals compared to non-teaching ones. On the other hand, none of the other investigated factors, including age, gender, or type of care, was related to the perspective of the patients. In contrast to our findings, a previous Saudi study revealed that the overall perception of the patients was strongly correlated with gender and the type of department **[7]**. Similar to our findings, in Iran, the comparison between teaching and non-teaching hospitals demonstrated that the service quality based on the patient's perception in non-teaching hospitals is higher than that of teaching hospitals (P=0.002) **[23]**.

Additionally, we found that more than one-half of the patients would return to the current hospital in the future. Hence, improving the gabs referred by patients and made them less satisfied would improve the patient satisfaction in their intention for future attendance.

Conclusion:

The satisfaction and perspective of patients regarding teaching hospitals were better compared to those of non-teaching hospitals. Actually, teaching hospitals was the sole factor related to higher patient satisfaction and perspective. However, the overall satisfaction wasn't optimum; therefore, healthcare provision should be improved, especially for the aspects gained less satisfaction by patients such as the performance, knowledge, and profession of nurses and assistants, waiting time, taking concerns seriously, and communication with the doctors.

Limitations, strengths, and recommendations:

The limitation of this study is the few comparison with previous studies due to lack of similar previous studies. However, this is the first Saudi study reported on this subject making it a strength point of this research. Therefore, further studies are recommended.

References:

1. Ferrand YB, Siemens J, Weathers D, Fredendall LD, Choi Y, Pirrallo RG, Bitner M. Patient satisfaction with healthcare services a critical review. Quality Management Journal. 2016 Jan 1;23(4):6-22.
2. Shahidi Sadeghi N, Maleki M, Abolghasem Gorji H, Vatankhah S, Mohaghegh B, Behmanesh A. Comparative analysis of patient demographics and outcomes in teaching and non-teaching hospitals in Iran. Hospital Practice. 2025 Jan 20(just-accepted).
3. Silber JH, Rosenbaum PR, Niknam BA, Ross RN, Reiter JG, Hill AS, Hochman LL, Brown SE, Arriaga AF, Fleisher LA. Comparing outcomes and costs of medical patients treated at major teaching and non-teaching hospitals: a national matched analysis. Journal of general internal medicine. 2020 Mar;35:743-52.
4. Papanikolaou PN, Christidi GD, Ioannidis JP. Patient outcomes with teaching versus nonteaching healthcare: a systematic review. PLoS medicine. 2006 Sep;3(9):e341.

5. Burke LG, Khullar D, Zheng J, Frakt AB, Orav EJ, Jha AK. Comparison of costs of care for Medicare patients hospitalized in teaching and nonteaching hospitals. JAMA network open. 2019 Jun 5;2(6):e195229-.
6. Alasiri AA, Alotaibi SA, Schussler E. Patient satisfaction among Saudi academic hospitals: a systematic review. BMJ open. 2024 May 1;14(5):e081185.
7. Al Momani M, Al Korashy H. Patient experience of nursing quality in a teaching hospital in Saudi Arabia. Iranian journal of public health. 2012;41(8):42.
8. Sacks GD, Lawson EH, Dawes AJ, Russell MM, Maggard-Gibbons M, Zingmond DS, Ko CY. Relationship between hospital performance on a patient satisfaction survey and surgical quality. JAMA surgery. 2015 Sep 1;150(9):858-64.
9. Alkhamis AA, Alshahrani MS, Alkhayal EA, Al Muhanna FA. A critical appraisal study on how medical schools differ from teaching hospitals. Academy of Strategic Management Journal. 2021;20(Special Issue 2):1-0.
10. Alsaqri S. Patient satisfaction with quality of nursing care at governmental hospitals, Ha'il City, Saudi Arabia. Journal of Biology, Agriculture and Healthcare. 2016;6(10):128-42.
11. Al Anazi LM. Client Satisfaction in Healthcare Environment in Saudi Arabia–A Qualitative Review. Saudi J Nurs Health Care. 2023;6(7):194-201.
12. Rezapour A, Foroughi Z, Shahidi Sadeghi N, Faraji M, Mazdaki A, Sarabi Asiabar A, et al. Identification of the most appropriate variables for measuring the efficiency of Iranian public hospitals: using Delphi technique. J Educ Health Promot. 2019;8:140.
13. Abusaada K, Alsaleh L, Herrera V, Du Y, Baig H, Everett G. Comparison of hospital outcomes and resource use in acute COPD exacerbation patients managed by teaching versus nonteaching services in a community hospital. J Eval Clin Pract. 2017;23(3):625-30.
14. Gaur BP, Jahnavi G, Thatkar PV. Patient satisfaction about services obtained from a teaching hospital, Port Blair: A cross-sectional study. Journal of family medicine and primary care. 2020 Jan 1;9(1):93-8.
15. Richardson PH, Curzen P, Fonagy P. Patients' attitudes to student doctors. Med Educ;1986: 20(4):314–317.
16. Hajioff D, Birchall M. Medical students in ENT outpatient clinics: Appointment times, patient satisfaction and student satisfaction. Med Educ;1999: 33(9):669–673.
17. Aqamolayi T, Zare S, Kebryayi A, Pudat A. Quality of primary health care from the perspective of women referred to healthCare centers of Bandar Abbas. Payesh J. 2007;7(2):121-7. Persian.
18. Aljuaid M, Mannan F, Chaudhry Z, *et al*. Quality of care in university hospitals in saudi arabia: a systematic review. *BMJ Open*. 2016;6:e008988.
19. Esguerra R, Toro J, Ospina JM, Porras A, Díaz C, Reyes S. The transition to a teaching hospital: Patient satisfaction before and after the introduction of medical students. Medical teacher. 2014 Aug 1;36(8):710-4.
20. Joshi KJ, Sochaliya K, Purani S, Kartha G. Patient satisfaction about health care services: A cross-sectional study of patients who visit the outpatient department of a civil hospital at Surendranagar, Gujarat. Int J Med Sci Public Health 2013;2:659-63.
21. Molina KL, Moura GM. Patient satisfaction according to the form of hospital stay at a teaching hospital. Acta Paulista de Enfermagem. 2016 Jan;29:17-25.
22. Senitan M, Alhaiti AH, Gillespie J. Patient satisfaction and experience of primary care in Saudi Arabia: a systematic review. *Int J Qual Health Care* 2018;30:751–9.
23. Zaboli R, Soltani Zarandi MR, Ayoubian A. A comparison of service quality in teaching and non-teaching hospitals: the Gap Analysis. International Journal of Travel Medicine and Global Health. 2015 Feb 1;3(1):37-42.