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Investigating the Influence of Service Quality on Patient Satisfaction in Public and Private Multispecialty Hospitals in India: An Empirical Study

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Abstract

This study measures and compares satisfaction among patients of selected public and private multispecialty hospitals and examines the relationship between service quality dimensions and patient satisfaction. A quantitative descriptive research design was adopted by collecting primary data from 600 patients from 12 multispecialty hospitals located in various locations in Punjab and Chandigarh, with 50 patients selected from each hospital. Service quality was assessed using the SERVQUAL framework, while patient satisfaction was measured using statements adapted from Westbrook and Oliver. Independent-samples *t*-tests were employed to compare patient satisfaction between public and private hospitals, while PLS-SEM was used to examine the relationships between the five service quality dimensions and patient satisfaction. It revealed that patient satisfaction differed significantly between public and private hospitals across all six locations. Private hospitals reported higher satisfaction in five locations, whereas the public hospital in Chandigarh recorded higher satisfaction. Among public-hospitals, all five service quality dimensions were positively and significantly associated with patient satisfaction. Empathy showed the strongest relationship (β = .430), followed by assurance (β =0.294) and reliability (β = 0.208), with the model explaining 71 percent of the variance in patient satisfaction. Among private hospitals, reliability demonstrated the strongest relationship (β = 0.265), followed by responsiveness (β = 0.208), while the model explained 32 percent of the variance. The findings indicate that patient satisfaction should be evaluated alongside the specific service-quality dimensions associated with it. The differences in the service-quality relationships across the two sectors further suggest the need for both sectors to adopt specific strategies to improve patient satisfaction.

Keywords: Patient satisfaction; service quality; SERVQUAL; public hospitals; private hospitals; multispecialty hospitals; PLS-SEM.

1. Introduction

Healthcare is a service-intensive sector in which patients evaluate not only the clinical component of care but also the way in which services are delivered, making patient satisfaction an important concern for both patients and hospital administration. Patient satisfaction has been discussed as an evaluative judgment that develops through comparison between expectations and experienced performance (Oliver, 1977; Oliver, 1980; Linder-Pelz, 1982). The expectation-disconfirmation perspective provides a useful foundation for understanding satisfaction in healthcare, as patients enter hospital encounters with expectations concerning physical facilities, reliability of service, responsiveness of employees, assurance and interpersonal attention, and their evaluation of actual service performance contribute to overall satisfaction. Service quality is closely connected with this evaluation process. Parasuraman, Zeithaml and Berry (1985) conceptualized service quality through the comparison of customer expectations and perceptions, and their SERVQUAL framework was subsequently operationalized around tangibles, reliability, responsiveness, assurance and empathy. The relevance of these dimensions to healthcare has been repeatedly examined in the previous related studies. Desai (2011) reported positive effects of all service-quality dimensions on patient satisfaction in public and private hospitals, while Basu and Biswas (2011) identified a broad set of healthcare quality attributes and reported a positive relationship between service quality and satisfaction. Similarly, Naik et al. (2013) found that healthcare service quality strongly influenced satisfaction among patients of private hospitals. Comparative evidence further indicates that public and private hospitals may not perform uniformly across service dimensions. Vanniarajan

and Arun (2010) reported higher service-quality evaluations for corporate hospitals than non-corporate hospitals, while Zamil et al. (2012) found significant differences in the impact of service quality on patient satisfaction between public and private hospitals. At the same time, Irfan et al. (2012) reported that service quality in public hospitals requires improvement, whereas other research has shown that individual dimensions can be particularly important in particular settings. For example, Sivakumar et al. (2010) highlighted reliability and assurance as important dimensions, while Kitapci et al. (2014) identified empathy and assurance as significant predictors of satisfaction in a public healthcare context. The present article brings together two objectives: first, to examine whether the level of patient satisfaction differs between selected public and private multispecialty hospitals and, second, to examine whether tangibles, reliability, responsiveness, assurance and empathy are significantly related to patient satisfaction within public and private hospitals. Thus, the study provides a combined assessment of whether patient satisfaction differs across hospital sectors and which service-quality dimensions are associated with satisfaction within each sector.

2. Literature Review

2.1 Patient Satisfaction in Healthcare

Patient satisfaction is a multidimensional evaluation of patients' experiences with healthcare services and reflects how patients assess the quality and delivery of care. Linder-Pelz (1982) provided a theoretical perspective on patient satisfaction, while Pascoe (1983) emphasized the importance of patients' evaluations of healthcare encounters. Gill and White (2009) further highlighted the conceptual and measurement complexities associated with patient satisfaction, indicating that satisfaction encompasses patients' evaluations of different aspects of their healthcare experiences. These evaluations may be shaped by multiple service encounters rather than by a single aspect of care. Mishra and Mishra (2014), for instance, examined patient satisfaction in relation to admission and reception, room preparation, nursing services, cleanliness, doctors, diet and staff behaviour, demonstrating the multidimensional nature of patients' evaluations. Thus, patient satisfaction provides an important basis for assessing how patients perceive the overall delivery of hospital services.

2.2 Service Quality in Healthcare

Service quality has been widely examined as an important determinant of patients' evaluations of healthcare services. Parasuraman et al. (1985) conceptualized service quality through the comparison of expectations and perceptions, providing the foundation for the SERVQUAL framework. Subsequent healthcare studies have applied this framework to assess different dimensions of service quality. Lim and Tang (2000) identified gaps between patient expectations and perceptions across service-quality dimensions in Singapore hospitals, while Uzun (2001) reported negative gaps across SERVQUAL dimensions in nursing care. Similarly, Suki et al. (2011) found that patient perceptions did not exceed expectations in private healthcare settings. However, the relative importance and structure of service-quality dimensions may differ across healthcare contexts. Yesilada and Direktor (2010), for example, identified a four-factor structure when comparing public and private hospitals rather than the original five-factor SERVQUAL structure. Zaim (2010) found significant relationships between reliability, courtesy and empathy and patient satisfaction, whereas assurance and tangibles were not significant. These findings indicate that the individual dimensions of service quality may contribute differently to patients' evaluations and therefore warrant separate examination.

2.3 Service Quality-Patient Satisfaction Relationship

Previous research has generally established a positive relationship between service quality and patient satisfaction, although the strength of individual dimensions varies across contexts. Desai (2011) reported positive relationships between all service-quality dimensions and patient satisfaction in public and private hospitals, while Basu and Biswas (2011) found a positive and significant relationship between healthcare service quality and satisfaction. Amin et al. (2013) similarly reported that higher hospital service quality was associated with higher patient satisfaction, and Sabir et al. (2014) found significant positive relationships between SERVQUAL dimensions and satisfaction across public, private and military hospitals. However, the relative contribution of individual service-quality dimensions is not consistent across sectors. Andaleeb (2001) identified discipline, assurance and responsiveness as important dimensions in the Bangladeshi healthcare context,

whereas Boshoff and Gray (2004) found empathy of nursing staff and assurance to be particularly influential in private healthcare. Sivakumar et al. (2010) highlighted reliability and assurance in a multispecialty hospital, while Kitapci et al. (2014) reported significant positive relationships between empathy, assurance and patient satisfaction. Such variation suggests that the relationship between service quality and patient satisfaction is context-dependent and that examining individual service-quality dimensions can provide greater insight than considering service quality as a single construct.

2.4 Public-Private Comparison in Healthcare

Differences between public and private healthcare providers have received considerable attention because organizational context may shape patients' evaluations of service delivery. Vanniarajan and Arun (2010) reported higher service-quality evaluations for corporate hospitals than non-corporate hospitals, while Zamil et al. (2012) found more favourable evaluations of private healthcare than public healthcare in Jordan. Singh (2013) also examined patient perceptions across public and private hospitals in Varanasi, and Raj Arul Edison Anthony et al. (2013) compared government and private hospitals in Mayiladuthurai. These studies demonstrate the relevance of examining patient satisfaction across hospital ownership types, while also indicating that differences may vary according to geographical and organizational settings. Sharma and Jiwan (2016) further examined the relationship between healthcare service quality and patient satisfaction in selected hospitals in Punjab, providing a relevant regional context for understanding healthcare service evaluations. Building on this body of evidence, the present study examines patient satisfaction across selected public and private multispecialty hospitals while simultaneously investigating the relationships between the five SERVQUAL dimensions and patient satisfaction within the two sectors.

3. Conceptual Framework, Objective and Hypothesis Development

3.1 Expectation-Disconfirmation Perspective

The expectation-disconfirmation perspective provides the principal theoretical foundation for understanding patient satisfaction in this study. Oliver (1977, 1980) conceptualized satisfaction as an outcome of the comparison between prior expectations and perceived performance. When perceived service performance meets or exceeds expectations, patients are more likely to develop favourable evaluations, whereas a shortfall between expectations and actual performance may result in dissatisfaction. In healthcare settings, this perspective is particularly relevant because patients enter hospital encounters with expectations regarding the quality and manner of service delivery and subsequently evaluate their experiences based on the services received. Thus, patient satisfaction reflects patients' overall evaluation of whether the healthcare experience corresponds with their expectations.

The expectation-disconfirmation perspective also provides a theoretical link between service quality and patient satisfaction. Parasuraman et al. (1985) conceptualized service quality around the comparison between customer expectations and perceptions, with SERVQUAL subsequently operationalizing service quality through tangibles, reliability, responsiveness, assurance and empathy. In this study, these five dimensions represent the major service attributes through which patients evaluate hospital services, while patient satisfaction represents the overall outcome of these evaluations. Accordingly, the conceptual framework proposes that evaluations of tangibles, reliability, responsiveness, assurance and empathy are positively associated with patient satisfaction.

3.2 Conceptual Model of the Study

The conceptual model (See figure 1) integrates the two analytical components of the study within a single framework. The five SERVQUAL dimensions, 'assurance', 'empathy', 'tangibles', 'reliability' and 'responsiveness' are positioned as service-quality dimensions associated with patient satisfaction. These relationships are examined separately for selected public and private multispecialty hospitals, allowing the relative importance of the service-quality dimensions to be examined within each sector. In addition, patient satisfaction is compared between public and private hospitals across the selected locations. The framework therefore combines a sector-level comparison of patient satisfaction with a dimension-level examination of the

service quality-satisfaction relationship. The model does not assume that hospital ownership moderates the relationships; rather, the same relationships are estimated separately for public and private hospitals.

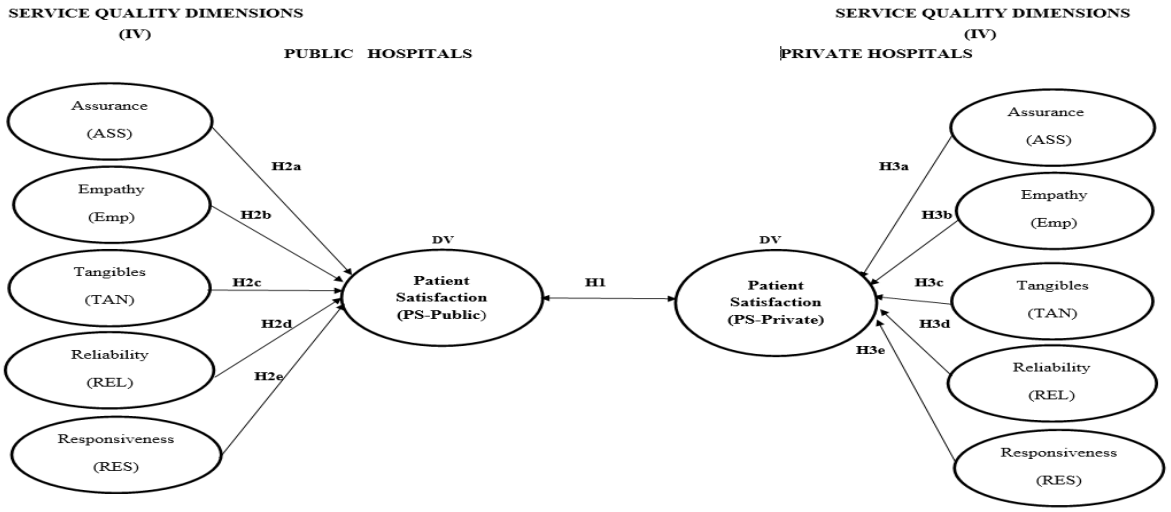


Fig 1. Conceptual Model

3.3 Objective of the Study

This study attempts to measure and compare satisfaction among patients of selected public and private multispecialty hospitals and examines the relationship between service quality dimensions and patient satisfaction

3.4 Hypothesis

The literature indicates that service-quality dimensions are positively associated with patient satisfaction, although their relative importance may vary across healthcare sector (Desai, 2011; Basu & Biswas, 2011; Amin et al., 2013; Sabir et al., 2014). Evidence also suggests that public and private hospitals may differ in patients' evaluations of healthcare services (Vanniarajan& Arun, 2010; Zamil et al., 2012). Based on the expectation-disconfirmation perspective and the empirical evidence, the following hypothess are proposed:

H1: There is a significant difference in patient satisfaction between selected public and private multispecialty hospitals.

H2a: Assurance significantly influences patient satisfaction in selected public hospitals.

H2b: Empathy significantly influences patient satisfaction in selected public hospitals.

H2c: Tangibles significantly influences patient satisfaction in selected public hospitals.

H2d: Reliability significantly influences patient satisfaction in selected public hospitals.

H2e: Responsiveness significantly influences patient satisfaction in selected public hospitals.

H3a: Assurance significantly influences patient satisfaction in selected private hospitals.

H3b: Empathy significantly influences patient satisfaction in selected private hospitals.

H3c: Tangibles significantly influences patient satisfaction in selected private hospitals.

H3d: Reliability significantly influences patient satisfaction in selected private hospitals.

H3e: Responsiveness significantly influences patient satisfaction in selected private hospitals.

4. Methodology

The study adopted a quantitative and descriptive research design to measure patient satisfaction and service-quality perceptions and the examination of relationships among constructs across public and private multispecialty hospitals. It compared the selected public and private hospitals to determine whether patient satisfaction differed between the two healthcare sectors. The study was conducted across six places namely Bathinda, Ludhiana, Jalandhar, Mohali, Amritsar from Punjab and Chandigarh. The sample comprised of 12 multispecialty hospitals with capacity of more than 100 beds, with one public and one private hospital purposively selected from each location.The data was collected from OPD patients who visited these hospitals for availing medical services in the year 2019. Purposive sampling was considered appropriate because the study required hospitals meeting specific characteristics, particularly multispecialty status, bed capacity and representation of both public and private sectors across the selected locations. Fifty patients were selected from each hospital, producing a total sample of 600 respondents (See table 1), equally distributed between public and private hospitals (300 in each sector). The balanced allocation ensured comparable representation of the two sectors and provided a consistent basis for the public-private comparison and for estimating the structural models separately within each sector.

Table 1. Demographic Profile of Respondents

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Female	305	50.8
	Male	295	49.2
Age (years)	18–25	20	3.33
	25–40	342	57.00
	40–55	166	27.67
	55 and above	72	12.00
Educational qualification	Senior secondary	6	1.0
	Graduation	383	63.8
	Post-graduation	210	35.0
	Any other	1	0.2
Monthly income (in Rs)	Below 10,000	12	2.0
	10,000–30,000	141	23.5
	30,000–50,000	268	44.7
	50,000–70,000	161	26.8
	70,000 and above	18	3.0
Healthcare service availed	Dentistry	53	8.8
	Dermatology	49	8.2
	ENT	119	19.8
	Gastroenterology and hepatology	43	7.2
	Obstetrics and gynecology	124	20.7
	Orthopedics	81	13.5
	Physiotherapy and rehabilitation	28	4.7
	Ophthalmology	94	15.7
	Dietician	9	1.5
Total respondents		**600**	**100.0**

Primary data were collected through adapted structured questionnaire comprising 44 SERVQUAL-based statements, including 22 expectation and 22 perception statements covering dimensions namely ‘assurance’, ‘empathy’, ‘tangibles’, ‘reliability’ and ‘responsiveness’, while patient satisfaction was assessed using nine

statements adapted from Westbrook and Oliver scale (1991), together with an additional statement measuring overall feelings toward hospital services. Responses were recorded on a five-point Likert scale. Independent-samples *t*-tests were employed for the public-private comparison of patient satisfaction. Relationships between service-quality dimensions and the latent construct of patient satisfaction were examined simultaneously through measurement and structural models. PLS-SEM was conducted separately for public and private hospital samples to identify the service-quality dimensions associated with patient satisfaction within each sector and to observe whether the relative strength of these relationships differed across the two sectors. The analysis included indicator loadings, internal consistency reliability, convergent validity, discriminant validity, collinearity, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and model fit, following the PLS-SEM criteria reported by Hair et al. (2011, 2014, 2019).

5. Results and Discussion

5.1 Patient Satisfaction among public and private hospitals

Table 2. Comparison of Patient Satisfaction between Public and Private Hospitals

Location	Private M	Private SD	Public M	Public SD	t	p
Bathinda	4.51	0.5	2.29	0.64	19.28	< .001
Ludhiana	4.28	0.52	2.39	0.73	14.83	< .001
Jalandhar	3.01	0.58	2.10	0.67	15.21	< .001
Mohali	4.36	0.58	1.88	0.65	20.04	< .001
Amritsar	4.16	0.42	2.08	0.55	21.11	< .001
Chandigarh	3.11	0.93	4.29	0.48	-10.88	< .001

Note: significant at p< 0.001

The output of independent-samples t-test result indicates that private hospitals have higher satisfaction means in Bathinda (4.51 vs. 2.29), Ludhiana (4.28 vs. 2.39), Jalandhar (3.01 vs. 2.10), Mohali (4.36 vs. 1.88) and Amritsar (4.16 vs. 2.08) (see table 2). Chandigarh reverses this pattern whereby PGI record a substantially higher mean (4.29) than Eden Hospital (3.11). The t-statistics are large in absolute value and all reported p-values are below 0.001, indicating statistically significant differences among selected public and private hospitals at every location. Mohali recorded the largest private-over-public gap in satisfaction level (2.48 points), followed by Bathinda (2.22), Amritsar (2.08), Ludhiana (1.89) and Jalandhar (0.91). In Chandigarh, Public hospitals outscored private counterpart by 1.18 score. Thus, the findings support H1 thereby indicating that the satisfaction level among selected public and private hospitals differ significantly.

5.2 Relationship between Service Quality and Patient Satisfaction

The PLS-SEM results were estimated separately for public and private hospitals.

5.2.1 Measurement Model assessment

Table 3. Reliability and convergent validity of the measurement models

Construct	Public α	Public CR	Public AVE	Private α	Private CR	Private AVE
Assurance	0.85	0.87	0.70	0.81	0.87	0.74
Empathy	0.89	0.90	0.76	0.89	0.82	0.70
Tangibles	0.89	0.89	0.76	0.82	0.88	0.65

Reliability	0.82	0.84	0.76	0.90	0.82	0.71
Responsiveness	0.87	0.89	0.77	0.90	0.83	0.74
Patient satisfaction	0.86	0.88	0.80	0.86	0.87	0.79

All six constructs show satisfactory internal consistency in both sectors (see table 3). Cronbach's alpha values range from 0.82 to 0.89 in the public sector and from 0.82 to 0.90 in the private sector, while composite reliability ranges from 0.84 to 0.90 and from 0.82 to 0.88, respectively. AVE values are above 0.50 across the constructs in both models, indicating adequate convergent validity(Hair et. al.2014). This study also reports acceptable indicator loadings and satisfactory discriminant validity through cross-loadings, Fornell-Larcker criteria and HTMT. In both public and private sectors, HTMT values were below 0.85 thereby confirming discriminant validity in both models. The results indicate that the constructs are sufficiently reliable and empirically distinguishable for structural analysis.

5.3 Structural Model: Public Hospitals

The path coefficients and PLS SEM estimation of how service quality dimensions affect patient satisfaction in public hospitals is shown in fig 2

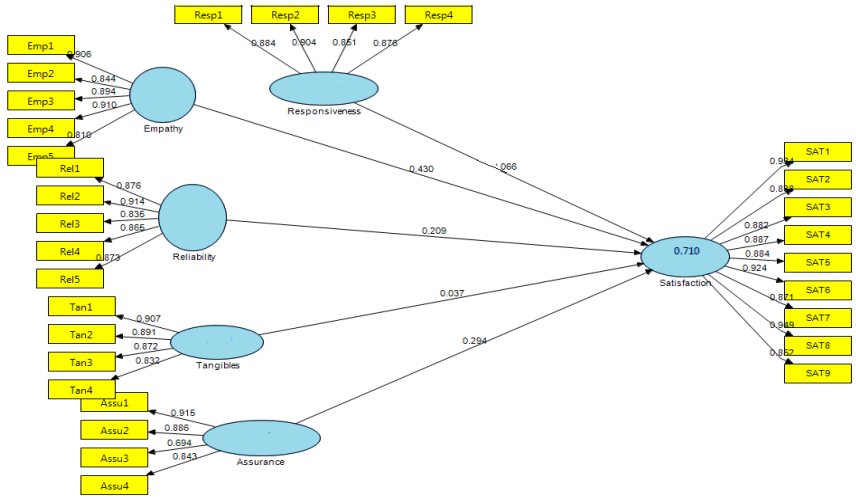


Fig 2 Relationship among service quality and patient satisfaction

Table 4. Structural relationships between service-quality and patient satisfaction in public hospitals

Predictor	VIF	β	t	p	R^2	f^2	Q^2	Decision
Assurance (H2a)	4.424	0.294	11.205	<0.05	0.710	0.050	0.565	Supported
Empathy(H2b)	4.352	0.430	16.908	<0.05		0.110		Supported
Tangibles(H2c)	1.976	0.037	3.096	<0.05		0.000		Supported
Reliability(H2d)	3.119	0.208	13.673	<0.05		0.040		Supported
Responsiveness(H2e)	3.976	0.066	3.169	<0.05		0.003		Supported

Note: Significant at p<.05

The public-hospital model shows positive and statistically significant relationships for all five service-quality dimensions (see table 4). Empathy is the strongest predictor (β = 0.430, t = 16.908), followed by assurance (β = 0.294), reliability (β = 0.208), responsiveness (β = 0.066) and tangibles (β = 0.037). The VIF values range from 1.976 to 4.424 and remain below the threshold of 5, indicating no reported collinearity problem. The result reveals that the five service-quality dimensions collectively explain 71 percent of the variance in patient satisfaction in the public-hospital model (R^2 = 0.710). The model exhibit strong predictive relevance (Q^2=0.565). Effect sizes are generally small with empathy having the largest effect size among five predictors (f^2 =0.110). Assurance, empathy and reliability have small contribution to the variation in endogenous variable patient satisfaction. The model has nearly substantial explanatory and strong predictive characteristics even though the incremental contribution of individual dimensions is modest.

Table 5. Model-fit for the public-hospitals

Fit index	Saturated model	Estimated model
SRMR	0.045	0.045
Chi-square	778.417	778.417
NFI	0.925	0.925

The public sector model has an SRMR of 0.045 in both the saturated and estimated models (>0.08) thereby indicating a well-fitting model (Hair et al, 2019). The NFI value of 0.925 further supports and shows that the model has good explanatory fit.

5.4 Structural Model: Private Hospitals

The path coefficients and PLS SEM estimation of how service quality dimensions affect patient satisfaction in private hospitals is shown in fig 3

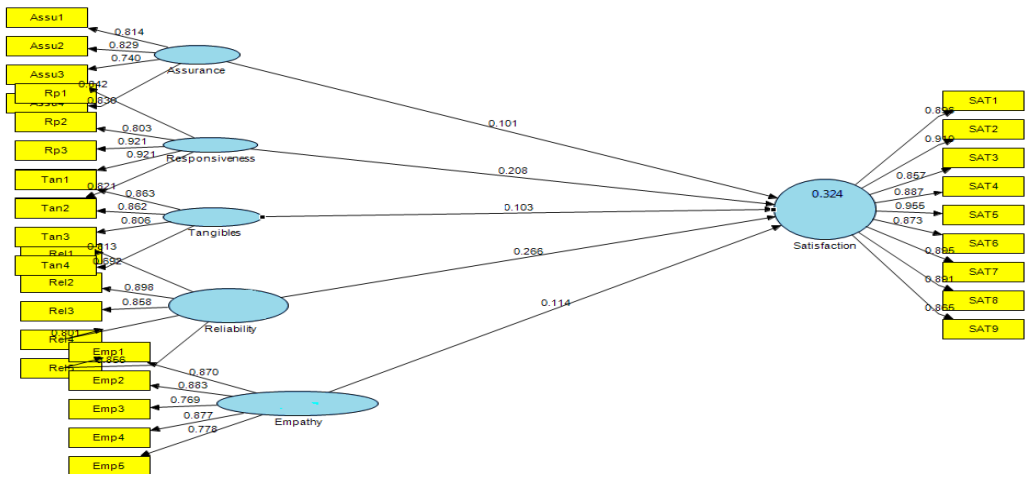


Fig 3 Relationship among service quality and patient satisfaction

Table 6. Structural relationships between service-quality and patient satisfaction in private hospitals

Predictor	VIF	β	t	p	R^2	f^2	Q^2	Decision
Assurance (H3a)	4.760	0.100	3.326	<0.05	0.324	0.002	0.251	Supported
Empathy (H3b)	3.456	0.114	4.489	<0.05		0.005		Supported
Tangibles (H3c)	2.273	0.102	5.221	<0.05		0.007		Supported

Reliability (H3d)	4.703	0.265	12.300	<0.05		0.022		Supported
Responsiveness(H3e)	4.013	0.208	9.031	<0.05		0.016		Supported

Note: Significant at p<.05

All five service-quality dimensions are positively and significantly associated with patient satisfaction in the private-hospital model (see table 6). Reliability is the strongest predictor (β = 0.265, t = 12.300), followed by responsiveness (β = 0.208), empathy (β = 0.114), tangibles (β = 0.102) and assurance (β = 0.100). VIF values ensure no issue with multi collinearity (>5).The five service quality dimensions were found to explain 32 percent of variance in patient satisfaction (R^2=0.324), while the model indicates medium predictive relevance(Q^2 = 0.251). The f^2 values are small for few dimensions, with reliability showing the largest effect size (0.022) indicating small contribution to variation in patient satisfaction. The model therefore indicates that the ability to perform the promised service dependably, accurately, and consistently over time is particularly important in the private hospitals, although all five dimensions have contributed significantly towards satisfaction.

Table 7. Model-fit for the private-hospital

Fit index	Saturated model	Estimated model
SRMR	0.062	0.062
Chi-square	781.362	781.362
NFI	0.914	0.914

The private-hospital model recorded an SRMR of 0.062 (>0.08) revealing a well fitted model. NFI of 0.914. indicates that the model has good explanatory fit. Compared with the public model, the private model has a somewhat higher SRMR and lower NFI.

Table 8. Summary of Hypothesis Testing

Hypothesis	Evidence	Decision
H1	Significant public-private satisfaction level difference in all six places of hospitals, p < .001	Supported
H2a	β=.294; t=11.205; p<.05	Supported
H2b	β=.430; t=16.908; p<.05	Supported
H2c	β=.037; t=3.096; p<.05	Supported
H2d	β=.208; t=13.673; p<.05	Supported
H2e	β=.066; t=3.169; p<.05	Supported
H3a	β=.100; t=3.326; p<.05	Supported
H3b	β=.114; t=4.489; p<.05	Supported
H3c	β=.102; t=5.221; p<.05	Supported
H3d	β=.265; t=12.300; p<.05	Supported
H3e	β=.208; t=9.031; p<.05	Supported

.

The satisfaction level comparison supports H1 as significant differences are observed at all six places of selected public and private hospitals. H2a,H2b,H2c,H2d & H2e related to public hospitals and H3a, H3b, H3c, H3d & H3 related to private hospitals are all supported as the relationship between service quality dimensions and patient satisfaction were found to be statistically significant(see table 8). Further, the path coefficients identified empathy as the leading public-hospital predictor and reliability as the leading private-hospital predictor.

5.5. Discussion

Although private hospitals recorded higher satisfaction across the selected locations, the satisfaction level in Chandigarh demonstrates that sector ownership alone does not determine how patients evaluate their hospital experience. This variation suggests that patient satisfaction is shaped by the quality-of-service delivery within a particular healthcare service provider rather than by the public or private label itself. The findings are broadly consistent with earlier evidence reported by Vanniarajan and Arun (2010), Zamil et al. (2012) and Singh (2013), while the contrasting satisfaction scores in Chandigarh hospital highlight the importance of considering institutional contexts when interpreting public-private differences. More importantly, the service-quality analysis explains why patients may respond differently within these sectors. All five SERVQUAL dimensions were positively associated with patient satisfaction in both sectors, confirming the central role of service quality in shaping patients' evaluations, as also suggested by Desai (2011), Basu and Biswas (2011), Amin et al. (2013) and Sabir et al. (2014). Yet, the pattern of importance was not identical across the two sectors. In public hospitals, the strongest association was observed for empathy, indicating that patients' evaluations may be particularly sensitive to interpersonal attention, understanding and personal care. This resonates with the emphasis on empathy and assurance reported by Boshoff and Gray (2004) and Kitapci et al. (2014). In private hospitals, reliability emerged as the most prominent dimension, followed by responsiveness, suggesting that consistent service delivery and prompt attention may be more central to how patients assess their experience in these settings. This pattern broadly corresponds with the importance of reliability and responsiveness reported in earlier healthcare research Sivakumar et al. (2010), Desai (2011) and Ahmed (2011). An interesting finding is the difference in explanatory power between the two sector-specific models. The service-quality dimensions explained substantially more variation in patient satisfaction among public-hospital patients than among private-hospital patients, suggesting that patients' satisfaction in the selected public hospitals may be more closely related to the five dimensions captured by SERVQUAL. It's an indication that the drivers of satisfaction work differently across healthcare sector. It is found that patient satisfaction has both a comparative dimension and a relational dimension. Although satisfaction can differ between hospitals, but the service quality dimensions that matter most within those hospitals can also change across sector. This suggests that evaluating healthcare performance solely through satisfaction scores may overlook important differences in what patients' value, reinforcing the need to examine both satisfaction levels and the specific service-quality dimensions underlying their performance.

6. Conclusion

This study provides an integrated understanding of patient satisfaction and service quality in selected public and private multispecialty hospitals. The findings demonstrate that patient satisfaction differed significantly across the two sectors, although the direction of this difference was not consistent across all locations. More importantly, the PLS-SEM results confirm that tangibles, reliability, responsiveness, assurance and empathy are all significantly associated with patient satisfaction in both public and private hospitals. However, their relative importance varies by sector, with empathy emerging as the strongest dimension in public hospitals and reliability in private hospitals. These findings indicate that improving patient satisfaction requires more than achieving a higher overall satisfaction score; it requires attention to the specific aspects of service delivery that patients value within different healthcare contexts. The study therefore highlights the value of combining comparative assessment of satisfaction with dimension-level analysis of service quality. For hospital administrators, this provides a basis for developing context-specific service improvement strategies, while theoretically, it reinforces the relevance of SERVQUAL and the expectation-disconfirmation perspective while highlighting the contextual nature of service-quality relationships. Overall, the study concludes that patient

satisfaction is shaped by both the level of service performance and the particular dimensions through which patients experience and evaluate healthcare services.

7. Theoretical and Practical Implications

The study attempts to understand healthcare service quality by examining patients' expectations and perceptions across the five SERVQUAL dimensions. The findings support the applicability of the SERVQUAL scale for evaluating service quality in the Indian healthcare sector, particularly in selected public and private multispecialty hospitals. However, the study also highlights the importance of considering the nature of the service when selecting and applying service-quality measurement scales, as different service sectors cater to different customer needs and expectations. Furthermore, the findings establish that service-quality dimensions are associated with patient satisfaction differently across public and private healthcare sector. Empathy emerged as the most influential dimension in public hospitals, whereas reliability was the strongest dimension in private hospitals. These findings provide a basis for future researchers to examine service-quality dimensions in other healthcare settings and explore alternative measurement scales to develop a broader understanding of service quality and patient satisfaction. The findings also address a gap in the literature by moving beyond the conventional public-versus-private comparison of overall satisfaction and examining the dimensions underlying satisfaction within each sector. The findings related to public hospital in Chandigarh challenges the notion that private hospitals necessarily generate higher satisfaction. Future research can focussed on this perspective by examining additional factors, such as perceived value, personal and behavioural factors and find out whether these factors explain the effect on satisfaction across public and private healthcare sector.

The findings offer several practical implications for hospital administrators and healthcare managers. First, the significant relationships between service-quality dimensions and patient satisfaction indicate that improving service quality should remain a central managerial priority in both public and private hospitals. However, the different patterns across sectors suggest that improvement strategies should be context-specific rather than uniform. In public hospitals, where empathy showed the strongest association with satisfaction, greater attention should be given to patient-centred communication, staff behaviour, understanding of patient needs and personalised care. In private hospitals, where reliability was the strongest dimension, managers should prioritise consistent service delivery, accuracy, dependability and fulfilment of service commitments, while responsiveness should also receive greater attention. The differences in satisfaction across locations further indicate that hospital managers should avoid relying solely on sector-wide assumptions and instead assess satisfaction and service-quality priorities at the individual hospital or local level. Finally, the findings suggest that patient satisfaction surveys should be used not only to measure overall satisfaction but also to identify the specific service dimensions requiring improvement. Such a dimension-based approach can help hospital administrators allocate resources more effectively and develop targeted strategies for improving patients' overall healthcare experience.

8. Limitations and Future Research Direction

This study has several limitations that provide opportunities for future research. The use of purposive sampling and a cross-sectional design limits the generalisability of the findings and does not allow changes in patient satisfaction to be examined over time. Future studies could employ probability sampling and longitudinal designs to improve representativeness and examine how service-quality perceptions and satisfaction evolve. The study considered only those patients who visit OPD to avail medical services. Future studies can include those patients too who are formally admitted in the hospital. The study was limited to selected multispecialty hospitals in Punjab and Chandigarh, and therefore the findings may not represent patients in other regions, hospital types or healthcare systems. Future research could extend the investigation to other states, geographical regions and healthcare settings. The analysis focused primarily on the five SERVQUAL dimensions as predictors of patient satisfaction. Future studies could incorporate additional factors such as perceived value and behavioural factors to provide a broader explanation of patient satisfaction. Finally, the study examined the public and private sectors separately but did not formally test whether hospital ownership changes the strength of individual service-quality relationships. Future research could therefore employ multi-group analysis or moderation

techniques to formally examine sector wise differences and provide stronger evidence of the service quality–patient satisfaction relationship.

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