

Care Redefined: A HEALTHQUAL-Based Exploration of Public and Private Hospital Services

^[1]Ms. Razeena ^[2]Dr. Shareena P

^[1]Research Scholar, Yenepoya (Deemed to be) University **Associate Professor, Yenepoya (Deemed to be) University

Abstract: The landscape of healthcare service quality evaluation has gained substantial attention in recent years, prompting the development of comprehensive assessment tools. The research seeks to enhance scholarly discussion by employing the HEALTHQUAL scale designed by D. Lee (2016), to assess and compare the service quality between private and public hospitals. The central objective of this study is to conduct comprehensive exploration of the landscape of healthcare service provision between private and public hospitals, two distinct categories within the healthcare sector.

Employing a cross-sectional research design, this study engaged in a meticulous examination of healthcare services. Utilizing a judgmental sampling technique, the researcher distributed a questionnaire to 200 respondents who possessed direct exposure to both private and public hospital services. The diligent data collection process yielded a substantial 186 responses, reflecting an impressive response rate of 93%.

Multiple regression analysis was used to assess the relationship between combined influence of empathy, tangible, safety quality aspects, efficiency quality aspects and improvements of care service. The findings of this research are anticipated to contribute substantively to both academic literature and practical healthcare management, ultimately fostering improved healthcare service quality and patient-centric care strategies in both private and public hospital contexts.

Key words: Healthcare Service Quality, HEALTHQUAL scale, Private and Public Hospitals, Service Quality Assessment

1. Introduction

Assessing the quality of healthcare services assumes significance when viewed through the lens of patients. The primary emphasis lies on the health service recipient, whose objectives encompass both satisfaction with received services and the enhancement of overall health. healthcare service quality hinges on intricate factors such as patient-provider interactions, the healthcare service process, and patients themselves (McLaughlin and Kaluzny 2006; Naveh and Stern 2005). While the widely-used SERVQUAL scale has been adopted in healthcare studies, its application has not consistently delved into the psychometric dimensions, often prioritizing managerial aspects. It's observed that in healthcare, modifications are necessary to align with the unique context. To address this, the authors propose a modified version called HEALTHQUAL, building upon the traditional SERVQUAL to better suit the healthcare environment (Black (2000), Camilleri and O'Callaghan (1998), Juwaheer and Kassean (2006) and Donabedian (1998).

Diverse approaches including SERVQUAL, SERVPERF, and mixed models have been employed in assessing healthcare service quality. Amidst these, Lee (2016) introduces HEALTHQUAL, a comprehensive model that emphasizes care processes and outcomes. Comprising five key components—empathy, tangibles, safety, efficiency, and the extent of care service enhancements—HEALTHQUAL offers a nuanced perspective on measuring healthcare service quality.

The primary aim of this research endeavour is to embark on an in-depth journey into the realm of healthcare service delivery, with a particular focus on the contrasting dynamics between private and public hospitals, which represent two distinct pillars within the healthcare sector.

2. Related Study And Hypothesis

There have been several attempts to compare service quality in public vs. private hospitals. Andaleeb (2000) argue that private hospitals were more motivated than public hospitals to offer higher service quality since these hospitals depend on income from patients. Many researchers supported this view in their findings regarding patients' perceptions of private and public hospitals' service quality (Yarimoglu E and Ataman G (2022); Ahmed

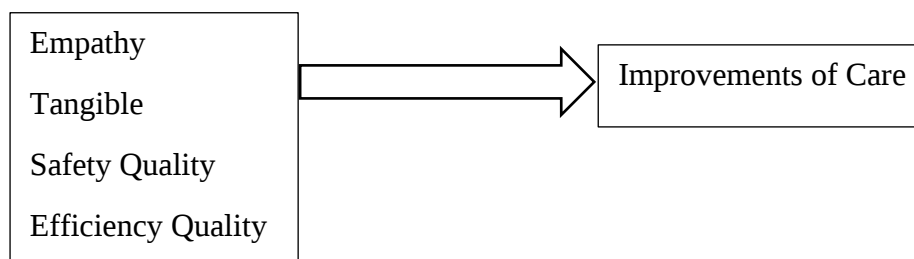
S et al (2017); Camilleri D, O'Callaghan M (1998); Irfan SM and Ijaz A (2011); Kwateng KO et al (2019); Swain S (2019); Taner T and Antony J (2006). However, other studies argued that the reverse is true (Jabnoun N and Chaker M (2003); Tayyem RF (2017); Yucesan M and Gul M (2020). Rahim et al. (2021) found that patients in Malaysia were generally satisfied with the services provided by public hospitals though they did not compare with private hospitals.

Therefore, although adaptations of the HEALTHQUAL survey are frequently used to measure perceived satisfaction, to date, no studies have been conducted using the HEALTHQUAL scale in Private and public hospitals in Karnataka.

Hypothesis 1: There is no significant relationship between the combined influence of empathy, tangible aspects, safety quality aspects, and efficiency quality aspects and improvements in care service of private hospital

Hypothesis 2: There is no significant relationship between the combined influence of empathy, tangible aspects, safety quality aspects, and efficiency quality aspects and improvements in care service of Government hospital

3. Conceptual Model



4. Methodology

In this study, researcher analysed the quality of healthcare service using five dimensions HEALTHQUAL adapted from Lee (2016). Thus, HEALTHQUAL scale comprises of five constructs and a total of 32 items: (1) empathy (7 items); (2) tangible (5 items); (3) safety quality aspects (6 items); (4) efficiency quality aspects (6 items); (5) improvements of care service (8 items).

A descriptive, exploratory, cross-sectional study was carried out during 2023. Utilizing a judgmental sampling technique, the researcher distributed a questionnaire to 200 respondents who possessed direct exposure to both private and public hospital services. The diligent data collection process yielded a substantial 186 responses, reflecting an impressive response rate of 93%. All items were measured on a 5-point Likert scale, where five was “strongly agree” and one was “strongly disagree.” Respondents to the questionnaire were informed that the data collection was anonymous and the purpose of this research is only of scientific objectives.

5. Data Analysis

Table 1: Demographic characteristics of respondents

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender	186	1.00	2.00	1.5591	.49783
Age	186	1.0	5.0	2.914	1.0517
Income	186	1.00	5.00	3.3387	1.18473
Occupation	186	1.00	5.00	3.1290	1.30468
Valid N (listwise)	186				

Source: Survey Data

The provided dataset consists of information from 186 individuals, encompassing gender, age, income, and occupation. In terms of gender, it appears that there are two categories represented, male and female, with a mean gender value of 1.56, suggesting a slight imbalance. The age of the individuals ranges from 1.0 to 5.0, with a mean age of 2.91. Income levels vary between 1.00 and 5.00, with an average income of 3.34. In terms of occupation, the dataset shows diversity, ranging from 1.00 to 5.00, with a mean occupation value of 3.13. These statistics provide a snapshot of the dataset's central tendencies and spread, which can be useful for further analysis and understanding the characteristics of the sampled population.

Hypothesis Testing:

Hypothesis 1: There is no significant relationship between the combined influence of empathy, tangible aspects, safety quality aspects, and efficiency quality aspects and improvements in care service of private hospital

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.234 ^a	.055	.034	.18184

a. Predictors: (Constant), PriEF, PriEmp, PriTan, PriSA

b. Dependent Variable: PriDI

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.348	4	.087	2.631	.036 ^b
	Residual	5.985	181	.033		
	Total	6.333	185			
a. Dependent Variable: PriDI						
b. Predictors: (Constant), PriEF, PriEmp, PriTan, PriSA						

Source: Survey Data

The multiple regression analysis results reveal that the combined impact of the independent variables, including Efficiency, Empathy, Tangibility, and Safety quality aspects for a limited 5.5% of the variance in improvements in care of Private Hospital. While the overall model is statistically significant, suggesting that at least one independent variable has a significant relationship with improvements in care, the low R-squared value indicates that the model has modest explanatory power.

Among the individual predictors, Empathy appears to have the most substantial positive association with improvements in care, while Efficiency has a slight negative impact. These findings imply that other unexamined factors likely play a substantial role in influencing improvements in care, and further exploration or the inclusion of additional variables may be necessary to gain a more comprehensive understanding of this relationship.

Hypothesis 2: There is no significant relationship between the combined influence of empathy, tangible aspects, safety quality aspects, and efficiency quality aspects and improvements in care service of Government hospital

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.107 ^a	.011	-.010	.41110

a. Predictors: (Constant), PubF, PubT, PubE, PubS

b. Dependent Variable: PubD

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.354	4	.088	.524	.719 ^b
	Residual	30.590	181	.169		
	Total	30.944	185			
a. Dependent Variable: PubD						
b. Predictors: (Constant), PubF, PubT, PubE, PubS						

Source: Survey Data

The results of the multiple regression analysis suggest that the combination of independent variables, including Efficiency, Tangibility, Empathy, and Safety, collectively explains a very limited 1.1% of the variance in improvements in care in Government Hospital. The overall model lacks statistical significance as indicated by a p-value of 0.719, suggesting that the included variables do not significantly contribute to explaining improvements in care.

Among the individual predictors, none demonstrate substantial associations with PubD, with coefficients close to zero. This implies that the model, as specified, does not provide meaningful insights into the factors influencing patient-doctor interaction in public hospitals. Additional research or the inclusion of other relevant variables may be necessary to gain a better understanding of this relationship.

6. Discussion

The outcomes of the multiple regression analyses for hospitals in the private and public sectors show significant disparities. While certain characteristics have a greater impact on treatment improvements in private hospitals, they are less significant in the setting of public hospitals. It is necessary to conduct more research into the particular dynamics and elements influencing changes in care in both settings. These could result in a rise in the standard of government hospitals' services (Yarimoglu E, Ataman G, 2022). Further exploration and inclusion of additional variables may be necessary to gain a more comprehensive understanding of this relationship.

7. Conclusion

Based on the provided results, researcher concluded that the factors included in the multiple regression models have a limited ability to explain improvements in care in both private and public hospitals. In private hospitals, the model accounts for a small 5.5% of the variability in improvements in care, with some individual predictors showing moderate associations. However, in government hospitals, the model's explanatory power is even lower, at 1.1%, and none of the individual predictors demonstrate substantial relationships with improvements in care. These findings suggest that the dynamics influencing improvements in care differ between private and public healthcare settings. Further research is needed to explore and identify the specific factors that play a significant role in shaping improvements in care within each context.

Reference:

- [1] D. Lee, "HEALTHQUAL: a multi-item scale for assessing healthcare service quality," *Serv. Bus.*, vol. 11, no. 3, pp. 491–516, 2016, doi: 10.1007/s11628-016-0317-2
- [2] McLaughlin CP, Kaluzny AD. Continuous quality improvement in health care. Sudbury, MA: Jones and Bartlett Publishers; 2006.
- [3] Naveh E, Stern Z. How quality improvement programmes can affect general hospital performance, *Int J Health Care Qual Assur.* 2005; 18(4): 249-70.
- [4] Black B. The application of SERVQUAL in a district nursing service. Scotland: PTM Publishers; 2000
- [5] Camilleri D, O'Callaghan M. Comparing public and private hospital care service quality, *Int J Health Care Qual Assur Inc Leadersh Health Serv.* 1998; 11(4-5): 127-33. doi: 10.1108/09526869810216052.
- [6] Juwaheer TD, Kassean H. Exploring quality perceptions of health care operations: a study of public hospitals of Mauritius. *J Hosp Mark Pub Rel.* 2006; 16(1–2): 89-111. doi: 10.1300/J375v16n01_07.

- [7] Donabedian A. Quality assessment and assurance: unity of purpose, diversity of Means. *Inquiry*. 1988 Spring; 25(1): 173-92
- [8] Andaleeb SS. Public and private hospitals in Bangladesh: Service quality and predictors of hospital choice. *Health Policy Plan*. (2000) 15:95– 102. doi: 10.1093/heapol/15.1.95
- [9] Yarimoglu E, Ataman G. How service quality in hospitals varies based on hospital ownership and demographics: a study on Turkish patients living urban areas. *Total Quality Management and Business Excellence*. (2022) 33:777– 93. doi: 10.1080/14783363.2021.1890576.
- [10] Ahmed S, Tarique KM, Arif I. Service quality, patient satisfaction and loyalty in the Bangladesh healthcare sector. *Int J Health Care Qual Assur*. (2017) 30:477–88. doi: 10.1108/IJHCQA-01-2017-0004.
- [11] Irfan SM, Ijaz A. Comparison of service quality between private and public hospitals: Empirical evidences from Pakistan. *J Qual Technol Manag*. (2011) 7:1– 22.
- [12] Kwateng KO, Lumor R, Acheampong FO. Service quality in public and private hospitals: A comparative study on patient satisfaction. *Int J Health Care Manag*. (2019) 12:251–8. doi: 10.1080/20479700.2017.1390183.
- [13] Swain S. Do patients really perceive better quality of service in private hospitals than public hospitals in India? *Benchmark Int J*. (2019) 26:590–613. doi: 10.1108/BIJ-03-2018-0055.
- [14] Taner T, Antony J. Comparing public and private hospital care service quality in Turkey. *Leadership Health Serv*. (2006) 19:1–10. doi: 10.1108/13660750610664991.
- [15] Jabnoun N, Chaker M. Comparing the quality of private and public hospitals. *Managing Service Quality: An International Journal*. (2003) 13:290– 9. doi: 10.1108/09604520310484707.
- [16] Tayyem RF, Mrayyan MT, Heath DD, Bawadi HA. Assessment of nutritional status among ESRD patients in Jordanian hospitals. *J Ren Nutr*. (2008) 18:281– 7. doi: 10.1053/j.jrn.2007.12.001.
- [17] Yucesan M, Gul M. Hospital service quality evaluation: an integrated model based on Pythagorean fuzzy AHP and fuzzy TOPSIS. *Soft Computing*. (2020) 24:3237–55. doi: 10.1007/s00500-019-04084-2.
- [18] Rahim AI, Ibrahim MI, Musa KI, Chua SL, Yaacob NM. Assessing patient perceived hospital service quality and sentiment in malaysian public hospitals using machine learning and facebook reviews. *Int J Environ Res Public Health*. (2021) 18:9912. doi: 10.3390/ijerph18189912