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An Analysis of The Constructs Influencing Public and Private Hospitals' Level of Service Quality: A Study in Context of Nepal

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Abstract

This research study examines the significance of the data collected as well as the service quality provided by hospitals in Nepal through a systematic review and analysis of the literature. Given the swift growth of the healthcare sector in Nepal, evaluating the caliber of hospital services is essential. The project's objectives are to compile all of the available data, pinpoint knowledge gaps, and offer wise counsel to academics, policymakers, and medical professionals. Using pre-established keywords linked to Nepali hospital service quality, a comprehensive search was carried out across several electronic databases, including PubMed, Scopus, and Web of Science. Studies released between January 2000 and April 2023 were taken into consideration. The systematic review comprised thirteen studies in all, including both qualitative and quantitative research methods. The systematic study's findings brought to light several essential elements of high-quality services, including tangibles, assurance, responsiveness, empathy, infrastructure, and assurance. An exploratory factor analysis technique was used to identify the contributing factors that are primarily responsible for the disparities in services offered between public and private sector hospitals in Nepal, based on the 600 valid responses to the survey that was conducted among the general public regarding private and public hospitals.

Methods: To obtain an overall picture, a reliable data set was chosen from the sample data gathered from patient parties and administrative staffs throughout public and private sector hospitals using systematic statistical procedures.

Results: The study's findings contribute to our understanding of the standard of hospital treatment in Nepal and could eventually raise public and professional awareness of the disparity in quality between hospital care in Nepal.

Discussions: The impact of hospital services on the people who use them is determined in this study, and it is a major aspect in assessing the standard of healthcare provided by the various sectors.

Keywords: Service Quality, Private and Public Hospitals, Nepal, Healthcare

INTRODUCTION

The provision of high-quality care is the main goal of all healthcare systems worldwide. Superior health services are more significant than other types of services because they have a greater influence on people's health and overall well-being. Actually, there has been a lot of interest in healthcare quality because improving treatment standards benefits the health of a country's people, which benefits the economy and society at large. Raising the standard of

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hospital care is an important objective for all countries, but especially for developing ones where hospitals are the main healthcare services.

The quality assessment of hospital treatment is receiving more attention because it is the initial step towards improving and managing quality in health care systems. Hospital service quality must be measured and tracked in order to ensure that patients' needs are satisfied and that the level of inpatient treatment is improving at a rate that will be adequate over time. Hospital service quality is measured, which helps hospital administrators identify areas that require further attention for quality improvement.

Giving people healthcare services that live up to their needs and expectations is essential to the survival of the business in the competitive healthcare industry. This suggests that meeting the needs and expectations of patients could be a useful indicator of the quality of treatment that hospitals and other healthcare facilities offer. Put another way, the difference between patients' expectations and perceptions of hospital services can be used to describe the gap in service quality; the smaller the difference, the higher the quality. Resolving the quality gap requires an understanding of patient expectations and perceptions. This will make it easier to pinpoint the advantages and disadvantages of hospital services and make it possible to put effective fixes into place that will improve the caliber of treatment given in hospitals.

The Servqual model is predicated on the notion that the best indicators of service quality are customer perceptions on five essential dimensions: tangibles, assurance, responsiveness, reliability, and empathy map.

Servqual measures service quality using a questionnaire consisting of paired statements for every category. Clients are requested to use a Likert scale, which typically ranges from 1 (strongly disagree) to 7 (strongly agree), to score their expectations and impressions of the service. Information regarding what customers expected and received is gathered through the review. Organizations can then compare the two and identify any differences.

Numerous studies evaluated the quality of care offered by hospitals in different regions of Nepal using the SERVQUAL methodology. The results of these research are contradictory. Therefore, it would seem that a complete analysis of the latest research is required to have a better understanding of the quality of services provided by all hospitals in Nepal. The goal of this study was to fill this vacuum in the literature by analyzing the quality of healthcare provided by hospitals in Nepal. In this study, a systematic literature review is explicitly conducted for the first time in order to determine the quality of hospital services in Nepal. The results of this study add to our knowledge of Nepal's hospital care standards and may eventually raise awareness of the disparity in quality between hospital care services among medical professionals and health policy-makers.

The study's primary goal is to pinpoint the causes of the various service gaps that exist between public and private hospitals.

LITERATURE REVIEW

Technical quality and functional quality are the two quality aspects that can be applied to the health care service (Gronroos, 1984). Functional quality is the way in which the patient receives the health care service; technical quality in the health care sector is defined primarily by the technical accuracy of the medical diagnoses and procedures or the conformance to professional specifications (Lam, 1997). Put differently, functional quality concerns how customers receive their needs, whereas technical quality concerns what they receive. According to research, technical quality is not a very helpful indicator of how patients assess the caliber of their interactions with medical professionals (Bowers et al., 1994).The research done by (Karki, M. B et al. 2022) they have analysed Customer's Satisfaction towards Service Quality of Hotel Industry in Nepal.

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It is reasonable to assume that a customer's experience with a service will affect his assessment of the service quality afterward (Gronroos, 1984). The result of an evaluation procedure in which the customer contrasts his expectations with the service he feels he has received is the perceived quality of the service. According to Zeithaml (1988), perceived quality refers to the consumer's assessment of an entity's overall superiority or perfection. It is the outcome of contrasting expectations and performance perceptions (Parasuraman et al., 1985; Ghosal et al., 2021).

While satisfaction is particular to a transaction, perceived service quality is an overall assessment or attitude on the superiority of the service. According to Parasuraman et al. (1985), perceptions of service quality are derived from instances of satisfaction across time, making quality and satisfaction related but distinct notions. The SERVQUAL method, created by Parasuman et al., evaluates the customer's expectations for the service as well as their impressions of the provider's performance.

The SERVQUAL model was developed by Parasuraman et al. in 1988 and consists of five elements. Four questions about tangibles, five questions about dependability, four questions about responsiveness, four questions about assurance, and five questions about empathy are among these qualities. In certain studies, a "access" dimension (two questions) was used in place of the sixth dimension. The model suggests that the quality of hospital services is determined by the difference between the expectations and perceptions of patients regarding the healthcare services provided by the hospital (i.e., service quality [SQ]= score of expectations [E] - score of perceptions [P]). The quality gap was computed for each service quality dimension and its sub-items by subtracting the expectation (what should be) score from the perception (what is) score. There would be no quality gap if patient expectations and opinions of hospital services were equal. In cases when patients' perceptions of hospital services were found to be less favorable than their expectations, the quality difference was considered to be negative. Studies on patient satisfaction have been included in this analysis since it is linked to the hospitals' level of care. SERVQUAL has been extensively used and regularly documented in the literature. It is positioned as a general approach that can be applied to a broad spectrum of service industries. In numerous health care studies, the SERVQUAL scale has been employed to evaluate patients' opinions of the quality of various services, including acute care hospitals (Carman, 1990; Prasad & Ghosal 2019; Karki et al. 2022), independent dental practices (McAlexander et al., 1994; Pahari, S et al., 2023), AIDS service agencies (Fusilier and Simpson, 1995). There has been much debate over how to measure the quality of health care services. A research team conducted a study on the quality of health services in Bangladesh in 2001 and found that all of the factors (discipline, communication, assurance, responsiveness, satisfaction, and tips) were statistically significant; discipline had the biggest effect on quality (Andaleeb 2001). A study comparing the service quality of public and private hospitals was carried out in the United Arab Emirates in 2003. The study's dimensions (empathy, tangibles, reliability, administrative responsiveness, and supporting skills) showed that the public sector performed better than the private sector in these areas (Jabnoun and Chaker 2003; Gupta, S. S et al., 2023).

RESEARCH METHODOLOGY

This investigation is empirical in character. Patients from both public and private hospitals who use the services provided the data for this investigation. Patients who use the treatment facilities in various hospitals make up the majority of the responders. In addition to the patients, a number of one-on-one interviews with administrative staff members were conducted to get their opinions on the service infrastructure that is offered throughout the hospitals. The strategy of convenience sampling has been applied.

The study examined secondary sources of data in order to analyze the hospital's service plan. The questionnaire was developed using the rating scale. A five-point Likert scale was used for 25 items, with five representing strong agreement and one representing significant disagreement. The results of the interview were translated, tagged, and utilized to determine the origins of common words. All in all, the product proved to be a helpful instrument for

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developing surveys. Once again, expert assessment and pilot testing were used to ascertain the construct validity of the questionnaire. There are two sections to the questionnaire:

- Information about the respondents' demographics.
- Reflective statements to identify the beneficial and powerful elements influencing the patients to choose a particular hospital for treatment.

Empirical Design

The SPSS program was used to code and report the questionnaire data in tabular form. Data redundancy has been exploited to determine its function, thanks to the exploratory factor analysis. The dimensions were obtained using the principal component technique. Data projection onto the major subspace was accomplished by major component analysis.

Analysis and Findings

The data taken from the review will undergo data purification in order to classify the missing value, sample characteristics, and meet the requirements of normalcy for this study.

KMO and Bartlett Test were performed to understand the data reliability of the data collected for research.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.666
Bartlett's Test of Sphericity	Approx. Chi-Square	1615.991
	df	21
	Sig.	.000

From the data it is evident that the data is reliable as the sample adequacy is greater than 0.6.

For the overall data obtained, Reliability statistics were executed to test the data reliability.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.823	.844	25

With a value of 0.844 as the cronbach’s alpha for a total of 25 questions, the data is reliable as the value is greater than 0.7.

Reliability tests were conducted on the seven components that were produced using factor analysis and the EFA technique. These seven aspects actually represent the twenty-five factors that were initially stated in the researcher’s questionnaire.

RELIABILITY TEST AFTER VARIABLE DEDUCTIONS(after EFA)		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.795	.797	7

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With a value of 0.797 as the cronbach's alpha for a total of 25 questions, the data is reliable as the value is greater than 0.7.

The factors obtained on performing Factor Analysis of the data are as follows and abbreviated accordingly for further usage:

- Admissions Process Simplicity -- AP
- On-call physician response time -- OP
- Employees' preparedness to deliver services -- EP
- Comfort of the patient's family -- CP
- Timely scheduling of the processes --TP
- Emergency services available on weekends and after hours --ES
- Discharge simplicity -- DS

Inter-Item Correlation Matrix

	AP	OP	EP	CP	TP	ES	DS
AP	1.000	.496	.182	.321	.545	.282	.689
OP	.496	1.000	.188	.104	.584	.107	.430
EP	.182	.188	1.000	.539	.180	.221	.142
CP	.321	.104	.539	1.000	.261	.617	.438
TP	.545	.584	.180	.261	1.000	.202	.435
ES	.282	.107	.221	.617	.202	1.000	.298
DS	.689	.430	.142	.438	.435	.298	1.000

Correlation Matrix of the Factors obtained								
		AP	OP	EP	CP	TP	ES	DS
Correlation	AP	1.000	.496	.182	.321	.545	.282	.689
	OP	.466	1.000	.188	.174	.584	.107	.430
	EP	.182	.188	1.000	.539	.188	.231	.142
	CP	.321	.104	.559	1.000	.261	.617	.478
	TP	.545	.584	.170	.261	1.000	.602	.435
	ES	.282	.607	.221	.617	.202	1.000	.298
	DS	.689	.430	.142	.438	.435	.298	1.000
Sig. (1-tailed)	AP		.000	.000	.000	.000	.000	.000
	OP	.000		.000	.005	.000	.004	.000
	EP	.000	.000		.000	.000	.000	.000
	CP	.000	.005	.000		.000	.000	.000

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	TP	.000	.000	.000	.000		.000	.000
	ES	.000	.004	.000	.000	.000		.000
	DS	.000	.000	.000	.000	.000	.000	
a. Determinant = .067								

RESULT

The analysis's outcome aided in identifying the variables from the data that was gathered using the exploratory factor analysis technique. The following seven characteristics were extracted: ease of use of the admissions process; prompt scheduling of procedures; physician response times while on call; comfort of the patient's family; availability of emergency services on weekends and after hours; and ease of discharge. In terms of data analysis and research, the reliability analysis demonstrates the validity and dependability of the data.

IMPLICATIONS

The review's conclusions can be used by Nepalese hospitals to identify the key variables influencing the standard of their care. By completing the gaps and raising the bar for treatment, hospitals can increase patient satisfaction. Increased patient loyalty, positive word-of-mouth recommendations, and an overall boost to the hospitals' reputation can follow from this.The review of the literature could highlight specific areas in which Nepali hospitals should focus to improve the caliber of their offerings. Hospital executives and decision-makers can use this as a guide as they organize and implement targeted quality improvement initiatives. These initiatives include, among other things, the adoption of patient-centered care techniques, the streamlining of administrative procedures, the enhancement of infrastructure, and training initiatives for healthcare personnel. The study's findings may provide crucial new information to Nepal's lawmakers and regulatory bodies. They can utilize these data to develop and put into effect regulations and guidelines aimed at improving the quality of care given by hospitals across the country. These rules might include financial incentives for hospitals to keep up service improvement, oversight processes, and minimum quality standards. The literature study's conclusions can be used by hospitals to guide their budgetary and resource allocation procedures. Hospitals must identify the areas that require improvement before allocating resources to solve these issues. In order to ensure that top-notch services are provided, this can include investing in training programs, purchasing state-of-the-art medical equipment, and adding more staff. The literature study can be used as a comprehensive knowledge base by healthcare professionals, researchers, and policymakers who are interested in the service quality of hospitals in Nepal. It might serve as a springboard for additional research, encouraging collaboration between interested parties. This collaboration could lead to further research initiatives, collaborative projects, and the sharing of best practices to improve healthcare institutions' quality of care. Hospitals can use the findings of the literature study as a benchmark to assess how well they are performing in terms of service quality. Hospitals can assess their operations and outcomes by comparing them to the best practices and standards found in the study. Hospital-specific accrediting criteria and assessment methods can be developed based on the research findings to foster a culture of quality and accountability.

CONCLUSION

Enhancing the quality of healthcare services is a crucial concern for patients, medical personnel, and policymakers in both developed and developing nations. The purpose of this study is to identify the critical elements that differentiate the quality of care provided by Nepal's public and private hospitals. To improve knowledge of the quality of care in Nepalese hospitals, a thorough assessment of the most recent research on the subject was conducted. Thirteen studies were chosen to assess the overall quality of services offered by Nepali hospitals based

on the inclusion and exclusion criteria. This study looked into the quality of healthcare services offered by Nepali hospitals in an effort to close this gap in the literature. To be more precise, this study assesses the quality of hospital services in Nepal by conducting a systematic evaluation of the literature's data for the first time. The study's findings aid in our understanding of Nepal's hospital care quality and could eventually raise public and professional awareness of the country's hospital care service quality disparity.

References

1. Awasthi, Ganga Datta and Adhikary, Rabindra (2012). Changes in Nepalese Civil Service after the adoption of inclusive policy and reform measures, SPCBN/UNDP, Nepal, p.1
2. Boyne, George A. (2002). Public and Private Management: What's the difference, Journal of Management Studies, 39, January
3. Calabrò, Andrea (2011). Governance Structures, Mechanism and Public Service Organizations, London, New York: PhysicaVerlag
4. Central Bureau of Statistics. Nepal Living Standard Survey 2010/11, Vol 2, 2011
5. Esman, Milton (1999). Public administration and conflict management in plural societies: the case for representative bureaucracy, Public Administration and Development, vol 19, p. 353- 366
6. Frederickson, George (2010). Social Equity and Public Administration, New York: M.E. Sharp, Inc.
7. Gronroos, Christian (1978). A Service-Oriented Approach to Marketing of Services, European Journal of Marketing, 12 (no.8), 588-601
8. Bahadur Chand, B., Bahadur Katuwal, S., Pandit, R., & Pandey, A. (2018). Satisfaction with Quality of Health Care among Teaching Hospitals in Kathmandu, Nepal. *Asian Journal of Medicine and Health*, *10*(2), 1–11. https://doi.org/10.9734/AJMAH/2018/39015
9. Subedi, D., & Uprety, K. (2015). Patients' satisfaction with hospital services in Kathmandu. *Journal of Chitwan Medical College*, *4*, 25-31.
10. Atul Kathole , Dinesh Chaudhari "Securing the Adhoc Network Data Using Hybrid Malicious Node Detection Approach", Proceedings of the International Conference on Intelligent Vision and Computing (ICIVC 2021) pp 447–457 © 2022 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.
11. Narula, & Samdani. (2017, August). Clients satisfaction on health care service quality: A comparison of public and private hospitals in Province No. 1 in Nepal. *Airo International Research Journal* , *12*(2), 1182–1195.
12. Ghosal, I., Prasad, B., Behera, M. P., & Kumar, A. (2021). Depicting the Prototype Change in Rural Consumer Behaviour: An Empirical Survey on Online Purchase Intention. *Paradigm*, *25*(2), 161-180.
13. Karki, M. B., Bhatt, M. B., & Ghosal, I. (2022). Analysis of Customer's Satisfaction towards Service Quality of Hotel Industry in Nepal. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, *6*(1), 15-25.
14. Narula, T. P., & Poudel, S. R. (2019, February 28). Client Satisfaction in Health Service Management in Hospitals of Province One Eastern Nepal. *Journal of Advanced Academic Research*, *6*(1), 29–45. https://doi.org/10.3126/jaar.v6i1.35323
15. Pahari, S., Ghosal, I., Prasad, B., & Dildar, S. M. (2023). Which Determinants Impact Consumer Purchase Behavior Toward Online Purchasing of Organic Food Products?.*Prabandhan: Indian Journal of Management*, *16*(1), 25-41.

16. Prasad, B., & Ghosal, I. (2019). Perception of Cancer Patients towards the Service Quality of the Healthcare Industry: A Paradigmatic Research on Serviceability. *International Journal of Innovative Technology and Exploring Engineering*, *8*(11), 676-681.
17. Silwal PR, Ashton T
18. Productivity of public hospitals in Nepal: a data envelopment analysis
19. *BMJ Open* 2017;**7:**e015327. doi: 10.1136/bmjopen-2016-015327
20. Mahato PK, Paudel GS. Access to free health-care services for the poor in tertiary hospitals of western Nepal: a descriptive study. WHO South-East Asia J Public Health 2015; 4(2): 167–175
21. K. N. Vhatkar and G. P. Bhole, "A comprehensive survey on container resource allocation approaches in cloud computing: State-of-the-art and research challenges," Web Intelligence, vol. 19, no. 4, pp. 295–316, 2021, doi: 10.3233/WEB-210474.
22. Grönroos C (1984). A service quality model and its marketing implications. Eur. J. Mark., 18(4): 36-44
23. Lam SSK (1997). SERVQUAL: A tool for measuring patient's opinions of hospital service quality in Hong Kong. Total Qual. Manage., 8(4):145-52
24. Atul Kathole , Dinesh Chaudhari "Secure Hybrid Approach for Sharing Data Securely in VANET", Proceeding of International Conference on Computational Science and Applications pp 217–221, © 2022 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.
25. Bowers MR, Swan JE, Koehler WF (1994). What attributes determine quality and satisfaction with health care delivery?. Health Care Manage. Rev., 19(4):49-55
26. Yesilada, F., & Direktör, E. (2010). Health care service quality: A comparison of public and private hospitals. African Journal of business management, 4(6), 962.
27. A. B. Kathole, K. N. Vhatkar, and S. D. Patil, "IoT-Enabled Pest Identification and Classification with New Meta-Heuristic-Based Deep Learning Framework," Cybernetics and Systems, vol. 0, no. 0, 2022, doi: 10.1080/01969722.2022.2122001.
28. Zeithaml, V.A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", Journal of Marketing, Vol. 52, pp. 2-22July.
29. Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985), "A conceptual model of service quality and its implications for future research", Journal of Marketing, Vol. 49, Fall, pp. 41-50
30. Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing, 66*(1), 33–55.
31. Sonali D.Patil, Atul B.Kathole, Savita Kumbhare, Kapil Vhatkar, Vinod V. Kimbahune,"A Blockchain-Based Approach to Ensuring the Security of Electronic Data", International Journal ofINTELLIGENT SYSTEMS AND APPLICATIONS IN ENGINEERING, IJISAE, 2024, 12(11s), 649–655. https://ijisae.org/index.php/IJISAE/article/view/4486/3145
32. McAlexander, J.H., Kaldenberg, D.O. and Koenig, H.F. (1994), "Service quality measurement: examination of dental practices sheds more light on the relationships between service quality, satisfaction, and purchase intentions in a health care setting", Journal of Health Care Marketing, Vol. 14 No. 3, pp. 34-40.
33. Gupta, S. S., Ghosal, I., & Ghosh, R. (2023). How does Augmented Reality (AR) impact on Consumer buying behavior? A Study in Indian E commerce Industry. European Economic Letters (EEL), 13(4), 700-707.
34. Fusilier, M.R. and Simpson, P.M. (1995), "AIDS patients' perceptions of nursing care quality", Journal of Health Care Marketing, Vol. 15 No. 1, pp. 49-53.
35. Taner, T., & Antony, J. (2006). Comparing public and private hospital care service quality in Turkey. Leadership in health services, 19(2), 1-10.

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/10.52783/eel.v14i1.1147
http://eelet.org.uk

36. K. Netaji Vhatkar and G. P. Bhole, “Self-improved moth flame for optimal container resource allocation in cloud,” Concurrency and Computation: Practice and Experience, vol. 34, no. 23, Oct. 2022, doi: 10.1002/cpe.7200.
37. Jabnoun, N., & Chaker, M. (2003). Comparing the quality of private and public hospitals. Managing Service Quality: An International Journal, 13(4), 290-299.
38. Andaleeb, S. S. (2001). Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. Social science & medicine, 52(9), 1359-1370.
39. Alumran, A., Almutawa, H., Alzain, Z., Althumairi, A., & Khalid, N. (2021). Comparing public and private hospitals’ service quality. Journal of Public Health, 29, 839-845.