



# QUALITY PARAMETERS OF PATIENT MEALS SERVED AT PRIVATE HOSPITALS

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## ABSTRACT

*If people's attention is going to be directed on the treatment of different ailments, health is more important than money. A total of 592 participants were recruited from 101 different private hospitals in Delhi for this study. According to the government's own website, these private hospitals are all members of the Central Government Health Scheme (CGHS). Survey research was employed to assemble the data for this exploratory, descriptive, and causal investigation. To achieve another goal, we employed a qualitative research approach to determine what makes a difference in how satisfied patients are with their hospital meals.*

**Keywords:** Private Hospital, Government Hospital, Affordability, Accessibility, Facility, Patient.

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## INTRODUCTION

Having a healthy populace is like gold for a country. After India gained its independence, only about 15% of the population opted for private healthcare. However, a recent study by the World Bank found that private hospitals in India are now used by far more people than public ones. Boyd discovered that just 15% of public hospital patients were younger than 19, 59% were aged 20–44, and 26% were aged 45 and over.

Because of this, 41% of patients visited a hospital that was within 30 miles of their home. According to Duggal, for-profit and non-profit entities both control hospitals, with the former providing more than 80 percent of the country's outpatient services.

People with low incomes and little assets are the primary beneficiaries of public hospitals. While most Indians prefer private hospitals, this is because public facilities often have long wait times, lack of available physicians and nurses, inadequate services, unpleasant personnel, unclean environments, etc. However, the private hospital offers superior care and cleanliness.

A person's financial position, race, and geographic region often all play a role in determining their preferred medical care facility. The government often foots the bill for primary medical care, while private companies shoulder the cost of secondary and tertiary facilities.

When compared to other service industries, health care is unique. Cost management, quality delivery, security, service access and equality, provider responsibility, continuing training, and an appropriate public-private balance are only some of the worldwide structural and administrative difficulties now facing the health care industry. Health care administrators are working to improve the system's value for patients and the public at large by doing things like expanding access to care and making the system more patient- and community-focused.

As such, survey-based research was conducted with 15 patients at a private dialysis clinic to shed light on the indeterminacy of service quality based on an insufficient sample size and a lack of statistical representation. To determine whether or not the two are independent concepts, a grey relational analysis (GRA) model with 10 quality criteria has been devised.

## LITERATURE AND REVIEW

Somayeh Tavanazadeh (2014) Once considered secondary to physical goods, companies now prioritize services above everything else they provide. There has been a long-term trend toward reorienting economies away from physical goods and toward services, especially in developed nations. The goal of this research is to give a more in-depth explanation of customer satisfaction by analyzing the interaction between the many aspects of service quality and customer satisfaction. Participants were selected using a random sample approach, and the study's design is a descriptive survey. Two hundred and seven questionnaires were sent to Saderat Bank customers in Tehran. Correlation and regression were used to examine the data. The statistical analysis of the data showed that there is a positive and substantial correlation between the different indicators of service quality and clients' overall happiness.

Peter Anabila et al (2018) The goal of the research was to learn more about how SQ affects patients' happiness and future actions. A total of 614 participants were used to form the sample. Patients from 20 different public hospitals in Ghana were randomly selected using a convenience sample. The study's constructs' connections were investigated using structural equation modeling with smart partial least squares. Patients were more satisfied when SQ was high, according to the research. The study also found that patient satisfaction mediates the favorable relationship between customer satisfaction and BI. This study provides a useful roadmap for the development of healthcare sector strategies and policies by assessing the SERVQUAL model's viability as a tool for launching continuous service improvement in Ghana's public healthcare sector. Managers in public healthcare settings and policymakers at national and international levels may also benefit from the findings.

Christine Nya-Ling Tan et al (2019) Patients' expectations of service quality are rising, creating increased competition in the healthcare sector. The study's goal is to simulate the ways in which different characteristics of service quality affect patients' satisfaction. A standardized questionnaire was used to gather data from 194 patients in both public and private hospitals in Melaka and Johor. SmartPLS, an analytical program of the second generation, was used to examine the data. The data reveal that 58% of the variation in ratings of care received by patients may be explained by the model. Significant indicators of patient satisfaction were a hospital's reputation, the safety of its patients, the quality of its employees, and its commitment to the community. The best predictor was the caliber of the staff. The consequence is that hospitals should spend more money on staff training if they want pleased, returning patients.

Ann N Kihuro et al (2018) The health care industry is essential to national prosperity. Over the last two decades, Kenya's private health industry has expanded rapidly, becoming a vital provider of medical services for many people. When public hospitals are unable to meet the demand for medical services owing to financial restrictions, the private sector steps in to provide this essential service. Some of these private hospitals, however, have been showing signs of diminishing performance. This study set out to answer the question, "How does product strategy impact the success of private hospitals in Kenya's Nyeri County?" in the context of that region of the country. Descriptive research methods were employed to collect the information for this study. There were 56 department heads and/or assistants polled from the five private hospitals in Nyeri County. The Medical and Dental Practitioners Board of Kenya sent self-administered questionnaires to private hospitals in Nyeri County. Two private hospitals in Kirinyaga County participated in a pilot program. If the instrument's Cronbach Alpha coefficient was at least 0.70, its reliability may be assumed to be high. Fifty-one (51) respondents filled out the survey out of a total of fifty-six (56), for a response rate of 91.1%. Descriptive and inferential statistics were generated from the analyzed data using SPSS, a statistical software for the social sciences. The coefficient of determination for the bivariate linear regression was set at 95%. The research found that product strategies significantly improved the efficiency of private hospitals. The research also found that most private hospitals provide high-quality care and employ doctors and nurses who treat patients with dignity and respect. Based on the findings, the authors suggest that private hospitals develop a health care delivery charter to improve the quality of their services and their overall effectiveness. The findings of this study call for further investigation into the difficulties encountered by private hospitals when they attempt to execute product strategies.

Azam, et al, (2012) A health service is any service provided by medically trained professionals with the goal of improving an individual's health in any way.

## METHODOLOGY

The purpose of this sample size calculation is to determine the percentage of hospitalized patients who were satisfied with the quality of their hospital meals and the elements comprising that quality. The following parameters were established for the sample size calculation:

1. Sampling Error less than 5%.
2. CI (Conf. Interval) – 95 %
3. Assumption - 0.5 for

Margin of error = 1.96 times of the SE i.e standard error

Standard error =

$$\sqrt{\frac{\hat{p}(1-\hat{p})}{n}} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$ME = z \sqrt{\frac{p(1-p)}{n}}$$

Formula for margin of Error is=

Using the values of z=1.96 and p.05 as the margin of error,  $\hat{p} = 0.5$

$$0.05 = 1.96 \sqrt{\frac{0.5 \times 0.5}{n}}$$

The calculated sample size, accounting for a.05 percentage point margin of error, is 384. The calculated sample size of 384 prompts the consideration of a larger sample size of 400.

**Correlation is applied between Meal Quality as Dependent variable and Individual meal Quality Attributes - Temperature, Taste, texture, Eye Appeal & Nutritional Balance as independent variables.**

**Table 1: Correlation between Meal Quality & Meal Quality Attributes (Temperature, Taste, texture, Eye Appeal & Nutritional Balance)**

		Temperature	Taste	Texture	Eye Appeal	Nutritional Balance
Meal Quality	Pearson Correlation	.607**	.646**	.542**	.368**	.332**
	Sig. (2-tailed)	.000	.000	.000	.000	.000

\*\*.

Correlation is significant at the 0.01 level (2-tailed).; N=400

**Table 2.: Cross Tabulation - Meal Attribute: Temperature with meal quality**

Cross tabulation				
Count				
		Meal quality		Total
		NO	YES	
Temperature	NO	152	39	191
	YES	23	186	209
Total		175	225	400

**Table 3.: T Test - Temperature with meal quality T-Test**

	Meal Quality	N	Mean	Std. Deviation	Std. Error Mean	t-value	p-value
Temperature	1	175	.1314	.33884	.02561	<b>19.04</b>	<b>.000</b>
	2	225	.8267	.37938	.02529		

It was found that there was a substantial difference between participants who reacted positively to both questions about the overall quality of the meal they were given and the food's temperature: those who answered "yes" to both questions had a far more positive experience than those who answered "no" to both questions.

**Table 4: Chi-Square Tests - Temperature with meal quality Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
<b>Pearson Chi-Square</b>	<b>1.907E2<sup>a</sup></b>	1	.000		
Continuity Correction <sup>b</sup>	187.931	1	.000		
Likelihood Ratio	210.015	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	190.231	1	.000		
N of Valid Cases <sup>b</sup>	400				

**Table 5: Meal Attribute: Taste with Meal quality**

Cross tabulation				
Count		Meal Quality		Total
		No	Yes	
Taste	No	160	39	199
	Yes	15	186	201
Total		175	225	400

**Table 6: T- Test – Taste & Meal Quality**

T-Test							
	Meal Quality	N	Mean	Std. Deviation	Std. Error Mean	t-value	p-value
Taste	1	175	.0857	.28074	.02122	<b>21.45</b>	<b>.000</b>
	2	225	.8311	.38720	.02581		

Participants who replied positively to both questions about their overall pleasure with the meal and their level of satisfaction with the meal's flavor were substantially different from those who reacted negatively to both questions.

**Table 7: Chi Square Test – Taste with meal quality**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
<b>Pearson Chi-Square</b>	<b>2.162E2<sup>a</sup></b>	1	.000		
<u>Continuity Correction<sup>b</sup></u>	213.225	1	.000		
Likelihood Ratio	244.620	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	215.638	1	.000		
<u>N of Valid Cases<sup>b</sup></u>	400				

**Table 8: Cross-tabulation - Meal Attribute: Texture with meal quality**

Cross-tabulation				
Count				
		Meal Quality		
		No	Yes	Total
Texture	No	138	42	180
	Yes	37	183	220
Total		175	225	400

**Table 9. T- Test - Texture with meal quality**

T-Test							
	Meal Quality	N	Mean	Std. Deviation	Std. Error Mean	t-value	p-value
Texture	1	175	.2114	.40949	.03095	<b>14.97</b>	.000
	2	225	.8133	.39051	.02603		

Differences between participants who were positive about the overall quality of the meal they were given and those who were negative about both the overall quality and the food's texture were statistically significant.

**Table 10: Chi-Square Tests - Texture with meal quality**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
<b>Pearson Chi-Square</b>	<b>1.441E2<sup>a</sup></b>	1	.000		
<u>Continuity Correction<sup>b</sup></u>	141.671	1	.000		
Likelihood Ratio	153.357	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	143.732	1	.000		
N of Valid Cases <sup>b</sup>	400				

**Table 11: Meal Attribute: Eye appeal with meal quality**

Cross-tabulation				
Count		Meal Quality		Total
		No	Yes	
Eye Appeal	No	127	67	194
	Yes	48	158	206
Total		175	225	400

**Table 12: T-Test - Eye appeal with meal quality**

T-Test							
	Meal Quality	N	Mean	Std. Deviation	Std. Error Mean	t-value	p-value
Eye Appeal	1	175	.2743	.44743	.03382	<b>09.37</b>	.000
	2	225	.7067	.46599	.03107		

Those who were satisfied with both the overall quality of their food and its aesthetic appeal (responded "yes") were substantially different from those who were dissatisfied with both aspects (responded "no" to both questions).

**Table 13: Chi-Square Tests - Eye appeal with meal quality**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	72.172 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	70.469	1	.000		
Likelihood Ratio	74.505	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	71.992	1	.000		
N of Valid Cases <sup>c</sup>	400				

**Table 14: Meal Attribute: Nutritional balance with meal quality**

Cross-tabulation				
Count		Meal Quality		Total
		No	Yes	
Nutritional balance	No	67	15	82
	Yes	108	210	318
Total		175	225	400

**Table 15: T- Test - Nutritional balance with meal quality**

T-Test							
	Meal Quality	N	Mean	Std. Deviation	Std. Error Mean	t-value	p-value
Nutritional Balance	1	175	.6171	.48748	.03685	<b>08.41</b>	<b>.000</b>
	2	225	.9333	.25000	.01667		

Participants who showed a favorable response with overall meal quality and also responded "No" on the Nutritional Balance of meal served differed significantly from those who showed a negative response with both questions.



**Table 16: Chi-Square Tests - Nutritional balance with meal quality Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
<b>Pearson Chi-Square</b>	<b>60.386<sup>a</sup></b>	1	.000		
Continuity Correction <sup>b</sup>	58.462	1	.000		
Likelihood Ratio	62.681	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	60.235	1	.000		
N of Valid Cases <sup>b</sup>	400				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 35.88.

b. Computed only for a 2x2 table

## CONCLUSION

In addition to boosting patients' nutritional status, hospital meals help in recuperation and play a critical role in their treatment, on par with pharmaceuticals and surgical treatments. Even if a patient is on a normal diet and does not need any invasive procedures or medications, they should not anticipate restaurant-quality meals while receiving care in a hospital. Finding that "Food budget make a significant impact on the quality of patient meals" is in line with the study's comparison of financial and operational parameters across different food service systems, which found that "there is difference between the systems with regard to critical variable such as food cost and labor."

## REFERENCE

- [1] Tavanazadeh, Somayeh. (2014). Investigation of Relationship between Service Quality Dimensions and Customers' Satisfaction (Case study: Saderat Bank Branches in Tehran City, Iran). *Mediterranean Journal of Social Sciences*. 10.5901/mjss.2014.v5n20p3116.
- [2] Anabila, Peter & Anome, Janet & Kumi, Desmond. (2018). Assessing service quality in Ghana's public hospitals: evidence from Greater Accra and Ashanti Regions. *Total Quality Management and Business Excellence*. 31. 10.1080/14783363.2018.1459542.
- [3] Tan, Christine Nya-Ling & Ojo, Adedapo & Hwa, Cheah & T., Ramayah. (2019). Measuring the Influence of Service Quality on Patient Satisfaction in Malaysia. *Quality Management Journal*. 26. 129-143. 10.1080/10686967.2019.1615852.
- [4] Kihuro, A. N., Sang, A., & Ngure, S. (2018). Product Strategies Influencing Performance of Private Hospitals in Nyeri County, Kenya. *International Journal of Academic Research in Business and Social Sciences*, 8(8), 327–345.
- [5] Azam, M., Rahman, Z., Talib, F., & Singh, K. J. (2012). A critical study of quality parameters in health care establishment: developing an integrated quality model. *International Journal of Health Care Quality Assurance*, 25(5), 387-402.

- [6] Hahn U., Krummenauer F. (2017). Results and methodology of cost-utility evaluation of cataract surgery in developed countries: Quality-adjusted life years and cataract. *Cataract of refractive Surgery*, 43, p.p.839-847. ISO, INTERNATIONAL STANDARDIZATION FOR ORGANIZATION (2017). [online] Available at: <https://www.iso.org> [Accessed 1 Nov. 2017].
- [7] Ka AM, Sow AS, Diagne JP, Ndoeye Roth PA, Kamara K, De Medeiros ME, Ba EA, Diallo HM, Wane AM, Kane H, Ndiaye JM, Sow S, Sy EM, Ndiaye PA. (2017). Patients' quality of life after cataract surgery. *French Journal of Ophthalmology*, 40(8), pp.629-635.
- [8] Kalaja, R., Myshketa, R. and Scalera, F. (2016). Service Quality Assessment in Health Care Sector: The Case of Durres Public Hospital. *Procedia - Social and Behavioral Sciences*, 235, pp.557-565.
- [9] Karatzaferi, V. (2017). Campaign for Cataract: «You have still much to see». [online] *Healthmag*. Available at: <http://healthmag.gr/post/8839/ekstrateia-gia-ton-katarrakthexeis-tosakoma-na-deis> [Accessed 31 Oct. 2017].
- [10] Lamoureux, E., Fenwick, E., Pesudovs, K. and Tan, D. (2011). The impact of cataract surgery on quality of life. *Current Opinion in Ophthalmology*, 22(1), pp.19-27.
- [11] LASER EYE SURGERY HUB (2017). Can you get Laser Eye Surgery for free on the NHS? [online] Available at: <https://www.lasereyesurgeryhub.co.uk/can-you-get-laser-eyesurgery-for-free-on-the-nhs/> [Accessed 27 Nov. 2017].
- [12] Stefko, R., Gavurora, B. & Kocisova, K. (2018). Health care efficiency assessment using DEA analysis in the Slovak Republic. *Health economic Review* (<http://creativecommons.org/licenses/by/4.0/>) Referenced on 2/4/18
- [13] Sutter, K. (2012). The growing importance of more sustainable products in the global health care industry. *Journal of Business Review in Service Sector*. 111-116.
- [14] Shameen, B., & Gupta, S. (2012) Marketing strategies in life insurance; *International Journal of Marketing, Financial Services & Management Research* 1 (11) 98-123.
- [15] Ngangue, N. & Manfred, K. (2015) Impact of life expectancy on the growth of Gross National Income. *Asian Economic and Financial Review* 5(4): 653-665