Research Article

"Analyzing The Factors of Perception About the Service Quality in Selected Public and Private Hospitals of The Raipur City"

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Abstract

When we talk about the service quality of any public and private hospital we mean to say the quality of the services provided by the hospitals. The quality of any hospital is directly proportional to the quality of the services provided. If the quality of the services provided in hospitals is good, the customers are happy and satisfied and if the quality of the services provided by the hospitals is unsatisfactory, the customers are unhappy. This results in retarded growth of an organization, less profitability, bad marketing, and poor treatment and care. This paper will discuss the analysis of the perception parameter on service quality (SQ) of selected public and private hospitals of Raipur city. The dimensions of the perception will be studied here, the reliability of the dimensions, followed by the exploratory factor analysis and then confirming or retaining the final factors by confirmatory factor analysis. The data used in the analysis is the primary data and it was collected from the three stakeholders i.e, in-patients, OPD patients (Follow-up patients), and the attendants of the patients.

Key Words: Perception, Service quality, Public and private, Hospitals,

Introduction

Health is the basis of every individual's well-being. Hospital is one of the parts of healthcare and is the basic pillar of the health care industry. The major focus of today's era is the quality of the services being offered and the profitability factor as far as private or corporate hospitals are concerned and cost reduction. The major focus of today's time is the profitability factor as far as private or corporate hospitals are concerned and cost reduction. The quality of results (patients and the attendants) depends upon many factors and dimensions and each factor contributes to the growth, success, survival, and performance of these organizations.Involvement of the human factor (health, wellbeing, treatment, and cure) is of great importance in hospitals and their management. The characteristics of incoming patients and their attendants vary widely concerning their emotion, economic, and culture quotient and if a hospital system aspires to work efficiently, there is no element on which it can compromise. That means the hospital-like organizations have to look for every service and to improve those services, to satisfy their patients and the attendants, and provide good quality of services.

Literature Review

Lim and Tang (2000) in their study, determined with the help SERVQUAL model. A questionnaire was designed using 22 statements with a few to a selected set of. A pilot survey was conducted in two hospitals with 20 respondents including 5 of each in-house patient, outpatients, observers, and CEOs/doctors..Therefore, the redesigned questionnaire now had 6 dimensions with a set of 25 statements for both expectations and perceptions and an additional question on the overall rating of each dimension for both expectations and perceptions. The scoring system was done. The data collection was done with a convenience sampling method. A sample size of respondents was approached by targeting 4 general practitioners' clinics with 200 questionnaires and 2 specialist clinics with 100 questionnaires. Out of 300 responses, 252 were satisfactory resulted in a response rate of 84%. The data were analyzed by simple statistical methods like mean and standard deviations for computation of SERVQUAL score.

Sohail (2003) assessed the dimensions of the SERVQUAL model that influenced the perception of patients in Malaysia. The model's usefulness was evaluated in these hospitals. Empirical research was conducted. A

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questionnaire was designed using the modified version of the SERVQUAL model consisting of the 5 dimensions with a set of 15 statements for each perception and expectation of the patients. A sample size of 1000 patients discharged from 5 private hospitals within 6months wasapproached. Out of which 186 responses were received out of which 150 complete resulted in a response rate of 18.6%.

Eleuch (2011) used functional and technical quality parameters in Japan. Researchers from various countries have used the dimensions according to the needs, wants, and perceptions of the patients and businesses in those specific populations.

Murthy (2012), found that nurses who are with patients 24 hours a day and doctors who provide core services as their liability are important deciding factors in establishing patient satisfaction. The vital factors on which private hospitals proved to be better were empathy and advanced technology being used by them. According to the researcher, hospital service delivery is a complex process and overall a set of variables, some hospitals may excel in some factors and may lag in others at the same time, so the hospitals must try to analyze the required needs of patients and should improve quality of services accordingly.

Research Methodology

Statement of problem

This paper discusses the perception parameters of the patients and the attendants of the hospital who determine the overall service quality of selected public and private hospitals of Raipur city. The quality of services being provided by the hospitals is determined by the level of perception perceived by the patients and the attendants. In the healthcare industry especially Hospitals, the quality of services determines the outcome of an organization. If the quality of services, perceived by the patients and the attendants are good, the patients and attendants are satisfied which means more profitability, growth, good marketing, better treatment and cure, and better wellbeing. If the level of perception perceived is low or poor the patients and the attendants are dissatisfied or unhappy.

Purpose

The purpose of this paper is to study the perception parameter about the service quality in selected public and private hospitals of Raipur city.

Objectives of the Study

1. To identify the determinants/factors of perception in selected public and private hospitals at Raipur city.

2. To study the perception factors about the service quality of indoor patients in selected public and private hospitals at Raipur city.

3. To study the perception factors about the service quality for OPD patients (Follow-ups) in selected public and private hospitals at Raipur city.

4. To study the perception factors about the service quality for attendants in selected public and private hospitals at Raipur city.

Justification of the study
The study has been done to discuss the perception parameter of the patients and their attendants about the service quality of the hospitals. Perception plays a major part in the HSQ, hospital service quality as far as the satisfaction index is concerned. If the level of perception perceived by the patients and their attendants is good regarding the quality of the services, the result is positive satisfaction. Simultaneously, if the quality of the services of the hospitals is perceived low the result is a negative satisfaction index.
Variables used in the Study
The study has been conducted on perception parameters. The dimensions of the perception taken for study purposes are as follows:

Perception: Tangibility, Reliability, Assurance, Empathy, Responsiveness.
Population

The population of the study constitutes the indoor patients, attendants, and outdoor patients

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(Follow-up patients) of two major public and two major private hospitals of Raipur city.   :

Sample Area

The study has been conducted at Raipur city of Chhattisgarh.

Sample Size and Hospitals took for study purpose: The total sample size (N) is 500.

Hospitals	Name of the Hospital	Indoor Patients	Attendants	Outdoor Patients	Total
Public	Dr. Bhim Rao Ambedkar Memorial Hospital, Raipur.	50	50	25	**125**
	All India Institute of Medical Sciences, AIIMS, Raipur.	50	50	25	**125**
	TOTAL (A)	100	100	25	**250**
Private	Ramakrishna Care Hospital, Raipur.	50	50	25	**125**
	Narayana Hridulaya, MMI hospital, Raipur.	50	50	25	**125**
	TOTAL (B)	100	100	25	**250**
	GRAND TOTAL (A+B)				**500**

Results&Discussion

RELIABILITY

To validate the results empirically, appropriate reliability tests of the measurement instrument havebeen taken

Table: 1

SI.NO	Perception factors	Items	Cronbach's alpha value
1.	Tangibility	7	.862
2.	Reliability	4	.894
3.	Assurance	3	.889
4.	Empathy	4	.892
5.	Responsiveness	3	.870

Cronbach's Alpha	N of items
.939	21

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The reliability of the perception variable is .939 for 21 items that are significant and is fit for further analysis. It can be said that the questionnaire containing the perception factors is reliable and can be used for further collection of data and analysis to attain our research objectives.

FACTOR ANALYSIS

1. Exploratory Factor Analysis (EFA)

Exploratory factor analysis was done on perception parameters selected in the study.There wasa total of five perception parameters and in each parameter, there were at least three items per parameter. The KMO value is more than 0.6 suggesting that there is a considerable amount of intercorrelations among the variables and it is appropriate to run a factor analysis.

Table: 2

Table indicating KMO values and Bartlett's test significance

	.869
Kaiser Meyer- Olkin Measure of Sampling Adequacy	
Bartlett's Test of Sphericity Approx. Chi Square	4818.676
Df	91
Sig.	.000

Table: 3

Table showing communalities of the remaining14 items explaining more than 50% of the variation.

	Intial	Extraction
TAN 1	1,000	.816
TAN 2	1,000	.859
TAN 3	1,000	.771
RSD 8	1,000	.754
RSD 9	1,000	.812
RSD 10	1,000	.788
RSD 11	1,000	.714
ESD 15	1,000	.682
ESD 16	1,000	.841
ESD 17	1,000	.784
ESD 18	1,000	.731
RP 19	1,000	.792
RP 20	1,000	.847
RP 21	1,000	.784

Here, for 14 items of perception variable, the communalities are greater than .5 stating that all the 14itemsexplain at least 50 percent of the variation in the final factor solution.

Table:4
Eigen value and total variance explained for perception variable

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.862	49.013	49.013	6.862	49.013	49.013	3.047	21.767	21.767
2	1.917	13.695	62.708	1.917	13.695	62.708	3.029	21.638	43.405
3	1.157	8.262	70.970	1.157	8.262	70.970	2.540	18.144	61.550
4	1.040	7.425	78.396	1.040	7.425	78.396	2.358	16.846	78.396

5	.555	3.968	82.364				
6	.408	2.916	85.280				
7	.347	2.476	87.756				
8	.314	2.240	89.996				
9	.286	2.044	92.040				
10	.266	1.900	93.940				
11	.261	1.866	95.806				
12	.216	1.545	97.351				
13	.197	1.405	98.757				
14	.174	1.243	100.000				

The tableshows two important values (i.e.) the Eigenvalues and the total variance explained. The factors having Eigenvalues over one are taken as they only sufficiently contribute towards the overall variance and are considered significant. All the factors having Eigenvalues less than one wasdiscarded.The cumulative total variance explained after rotation is 78.39%. This states that around78% of the total variance in the variables is explained by 4 factors.
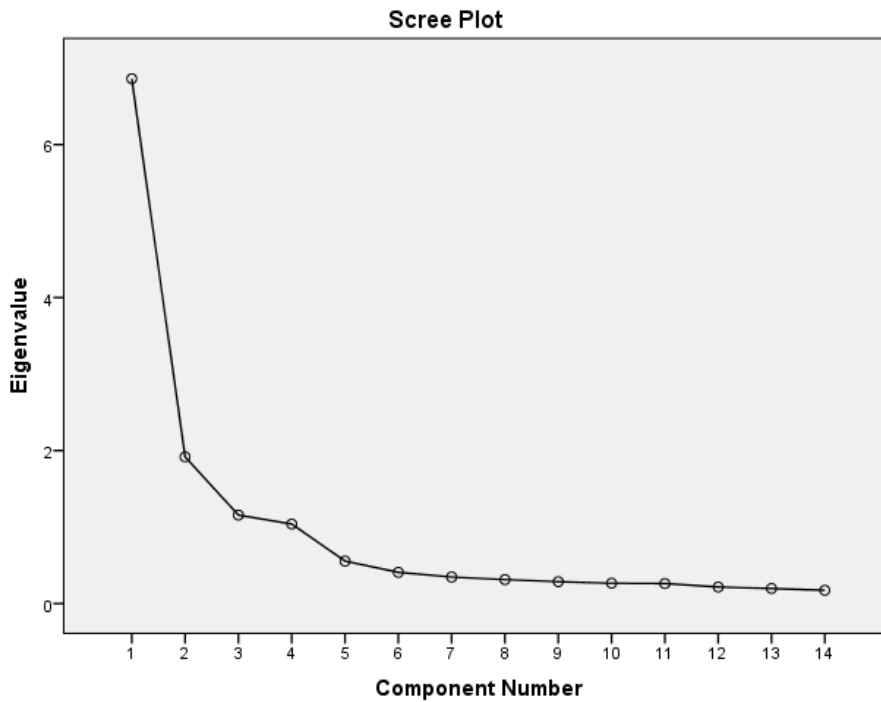
Figure :1
Scree plot for Perception items

.Table:5

Table indicating the rotated component matrix of perception

| | Component | | | |
	1	2	3	4
ESD 16	.856			
ESD 17	.807			
ESD 18	.798			
ESD 15	.721			
RSD 9		.847		
RSD 10		.804		
RSD 8		.779		
RSD 11		.758		
TAN 2			.891	

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TAN 1			.832	
TAN 3			.814	
RP 20				.837
RP 19				.806
RP 21				.781

After applying EFA on the collected data, the results were achieved where items got reduced to 14 and got distributed in the following four factors.

2. Confirmatory factor analysis (CFA)

The construct presented the values which were within the acceptable limits.

Chi- square= 328.327
Degree of freedom= 71
Probability level= .000
Table:6

Fit indices of Perception variable

Model	CMIN/DF	GFI	AGFI	NFI	TLI	RMSEA
Default model	4.624	.909	.866	.933	.931	.085
Independence model	53.543	.258	,144	.000	.000	.324

Note: "default model refers to the hypothesized model under testing while the independence model also known as the null model, is a model in which all correlations among variables are zero" (Bryne, 2009)

Table :7
Model Fit Measures

Measure	Estimate	Threshold	Interpretation
CMIN	328.327	--	--
DF	71.000	--	--
CMIN/DF	4.624	Between 1 and 3	Acceptable
CFI	0.946	>0.95	Acceptable
SRMR	0.049	<0.08	Excellent
RMSEA	0.085	<0.06	Excellent
PGFI	0.615	>0.8	Acceptable
PClose	0.610	>0.05	Excellent

*Note: Hu and Bentler (1999, "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives") recommend combinations of measures. I prefer a combination of CFI>0.95 and SRMR<0.08. To further solidify evidence, add the RMSEA<0.06.
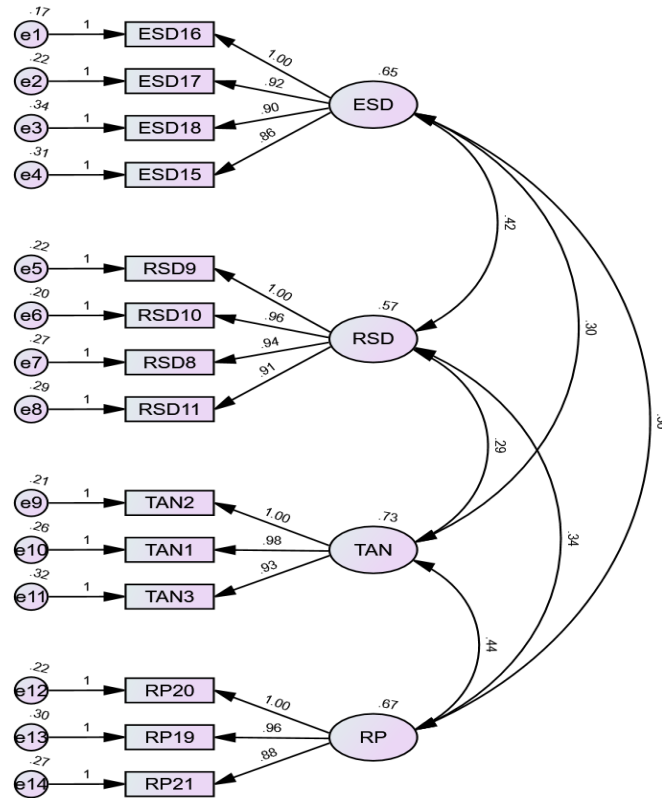
**If you would like to cite this tool directly, please use the following: Gaskin, J. & Lim, J. (2016), "Model Fit Measures", AMOS Plugin. Gaskination'sStatWiki.

The AMOS output of the perception scale was taken out considering the factors and items retained after the application of EFA.

Figure: 2

Final Confirmatory factor Analysis (CFA) construct of perception.

CFA output:

Table:8

			Estimate	S.E.	C.R.	P	Label
ESD16	<---	1	1.000				
ESD17	<---	1	.919	.037	24.548	***	
ESD18	<---	1	.899	.042	21.486	***	
ESD15	<---	1	.863	.040	21.475	***	
RSD9	<---	2	1.000				
RSD10	<---	2	.960	.042	23.081	***	
RSD8	<---	2	.942	.044	21.482	***	
RSD11	<---	2	.907	.044	20.619	***	
TAN2	<---	3	1.000				
TAN1	<---	3	.977	.042	23.419	***	
TAN3	<---	3	.934	.042	22.065	***	
RP20	<---	4	1.000				
RP19	<---	4	.958	.045	21.267	***	
RP21	<---	4	.879	.042	21.077	***	

Conclusion

The level of perception perceived by the patients and the attendants is of utmost importance as far as overall satisfaction is concerned.When a patient or their attendant visit any hospital, he has the perception in his mind about that hospital and when he avails the services of the hospital that determines the actual outcome of those services. If the level of perception perceived by them is good, the patients and attendants are happy and satisfied. If the level of perception perceived is low or not good, the patients and the attendants are unhappy or dissatisfied. Perception level is an important factor when we discuss the patient or attendant satisfaction, this parameter judges the quality of the services provided by the hospital.

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