



## **A STUDY ON SERVICE QUALITY, PATIENTS' SATISFACTION AND LOYALTY TOWARDS GOVERNMENT HOSPITALS IN COIMBATORE DISTRICT, TAMIL NADU**

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### **Abstract**

*A Government hospital is typically the major health care facility in its region, with a large number of beds for intensive care and long-term care, facilities for surgery and childbirth, bio assay laboratories, and so forth. The correlation analysis shows that the service quality dimension of empathy, tangible, assurance, reliability and responsiveness are positively and significantly associated with patients' satisfaction of Government hospitals. The regression indicates that responsiveness, reliability, tangible, empathy and assurance dimensions have a positive and significant impact on patients' loyalty towards Government hospitals. In order to improve the service quality of Government hospitals, staff and nurses should care the patient, hospital put their best efforts to provide comfort to patients and hospital should be neat and clean. The Government hospitals should improve the waiting facilities for attendants and patients, healthy environment at hospital, cleanliness of toilets/bathrooms and cleanliness in wards / rooms (sheets, floor) and hygienic conditions of the hospitals. In order to increase the patients' satisfaction and loyalty, the Government hospitals must improve the admissions and discharge services, nursing services, nutritional services, diagnostic services and aftercare instructions.*

**Key Words:** *Government Hospital, Loyalty, Patients' Satisfaction, Service Quality.*

### **1. INTRODUCTION**

Today hospitals are centers of professional health care provided by physicians and nurses. The best-known is the Government hospital, which is set up to deal with many kinds of diseases and injuries, and typically has an emergency ward to deal with immediate threats to health and the capacity to dispatch emergency medical services to public. A Government hospital is typically the major health care facility in its region, with a large number of beds for intensive care and long-term care, facilities for surgery and childbirth, bio assay laboratories, and so forth.

Patients just come for diagnosis and/or therapy and then leave (outpatients), but some others stay the nights (inpatients). Putting the patient first is a challenge that requires not just a huge change in the mindset of all the stakeholders in health care provision, but also the means by which to measure the levels of satisfaction of patients, and to discover what matters to them before, during and after their visit to Government hospital.

The quality of service in health means an inexpensive type of service with minimum side effects that can cure or relieve the health problems of the patients. Patient satisfaction depends up on many factors such as quality of clinical services provided, availability of medicine, behaviour of doctors and other health staff, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences. Keeping this in view, an attempt has been made to study the service quality, patients' satisfaction and loyalty towards Government hospitals in Coimbatore district.

### **2. METHODOLOGY**

Among the different districts in Tamil Nadu, the Coimbatore district has been purposively selected for the present study. The 600 patients of Government hospitals have been selected for the present study by adopting random sampling technique and the data and information pertain to the year 2014-2015. In order to examine the socio-economic profile of patients of Government hospitals, the frequency and percentage analysis have been carried out. The mean and standard deviation have been worked out for service quality and patients' satisfaction about Government hospitals. In order to examine the difference between the socio economic profile of patients and service quality of Government hospitals, the ANOVA (Analysis of Variance) has been employed. The correlation analysis has been applied to study the relationship between service quality dimensions of Government hospitals and patients' satisfaction. In order to examine the impact of service quality dimensions of Government hospitals on patients' loyalty, the multiple linear regressions have been employed.

### **3. RESULTS AND DISCUSSION**

#### **3.1. Socio-Economic Profile of Patients of Government Hospitals**



The socio-economic profile of patients of Government hospitals was analyzed and the results are presented in Table-1. The results show that about 59.83 per cent of patients of Government hospitals are males and the rest of 40.17 per cent of patients of Government hospitals are females. It is observed that about 36.17 per cent of patients of Government hospitals belong to the age group of 36 – 45 years followed by 26 – 35 years (30.33 per cent), 46 – 55 years (13.33 per cent), 15 – 25 years (11.33 per cent) and 56 – 60 years (8.84 per cent). The results indicate that about 34.00 per cent of patients of Government hospitals have the educational qualification of secondary education followed by higher secondary (25.50 per cent), primary (19.83 per cent), diploma (9.50 per cent), graduation (7.33 per cent) and post-graduation (3.84 per cent). It is clear that about 38.33 per cent of patients of Government hospitals are working in private sector followed by agriculture (21.67 per cent), business (18.67 per cent), Government Sector (15.00 per cent) and retired (6.33 per cent). It is apparent that about 34.33 per cent of patients of Government hospitals belong to the monthly income of Rs.3,001 – Rs.6,000 followed by Rs.6,001 – Rs.9,000 (24.83 per cent), below Rs.3,000 (18.33 per cent), Rs.9,001 – Rs.12,000 (15.17 per cent) and Rs.12,001 – Rs.15,000 (7.34 per cent).

**Table -1. Socio-Economic Profile of Patients of Government Hospitals**

Socio-Economic Profile	Frequency	Percentage
<b>Gender</b>		
Male	359	59.83
Female	241	40.17
<b>Age Group</b>		
15 – 25 years	68	11.33
26 – 35 years	182	30.33
36 – 45 years	217	36.17
46 – 55 years	80	13.33
56 – 60 years	68	11.33
<b>Educational Qualification</b>		
Primary	119	19.83
Secondary	204	34.00
Higher Secondary	153	25.50
Diploma	57	9.50
Graduation	44	7.33
Post Graduation	23	3.84
<b>Occupation</b>		
Agriculture	130	21.67
Business	112	18.67
Government Sector	90	15.00
Private Sector	230	38.33
Retired	38	6.33
<b>Monthly Income</b>		
Below Rs.3,000	110	18.33
Rs.3,001 – Rs.6,000	206	34.33
Rs.6,001 – Rs.9,000	149	24.83
Rs.9,001 – Rs.12,000	91	15.17
Rs.12,001 – Rs.15,000	44	7.34

### 3.2. Patients' Perception on Service Quality of Government Hospitals

The patients' perception on service quality of Government hospitals was analyzed and the results are hereunder presented.

#### 3.2.1. Empathy Dimension

The patients' perception on empathy dimension of Government hospitals was analyzed and the results are presented in Table-2.



**Table -2. Patients' Perception on Empathy Dimension of Government Hospitals**

Empathy Dimension	Mean Score	Standard Deviation
Doctors have genuine concern about patients	3.67	1.02
Doctor care their patients	3.61	0.90
Staff and nurses care the patient	3.40	1.08
Hospital put their best efforts to provide comfort to patients	3.43	1.07
Hospital is neat and clean	3.45	1.12

The results show that the patients of Government hospitals are agreed with doctors have genuine concern about patients and doctor care their patients, while, they are neutral with staff and nurses care the patient, hospital put their best efforts to provide comfort to patients and hospital is neat and clean.

### 3.2.2. Tangible Dimension

The patients' perception on tangible dimension of Government hospitals was analyzed and the results are presented in Table-3.

**Table -3. Patients' Perception on Tangible Dimension of Government Hospitals**

Tangible Dimension	Mean Score	Standard Deviation
Hygienic conditions at hospital	2.41	1.49
Waiting facilities for attendants and patients	3.43	1.09
Healthy environment at hospital	3.27	1.21
Cleanliness of toilets/bathrooms	3.19	1.28
Cleanliness in wards/rooms (sheets, floor)	3.36	1.16
Lab and pharmacy facilities within the hospital	3.69	0.68

The results indicate that the patients of Government hospitals are agreed with lab and pharmacy facilities within the hospital, while, they are neutral with waiting facilities for attendants and patients, healthy environment at hospital, cleanliness of toilets/bathrooms and cleanliness in wards/rooms (sheets, floor). Meanwhile, they are disagreed with hygienic conditions at hospital.

### 3.2.3. Assurance Dimension

The patients' perception on assurance dimension of Government hospitals was analyzed and the results are presented in Table-4.

**Table-4. Patients' Perception on Assurance Dimension of Government Hospitals**

Assurance Dimension	Mean Score	Standard Deviation
Doctor's expertise and skills	3.70	0.71
Thorough investigations of the patient	3.34	1.07
Doctors almost make right diagnoses	3.65	0.79
Doctors go for expert opinion in critical cases	3.43	1.00
Accuracy in lab reports	3.44	1.07
Special attention to emergency patients	3.66	1.84

It is observed that the patients of Government hospitals are agreed with doctor's expertise and skills, doctors almost make right diagnoses and special attention to emergency patients, while, they are neutral with thorough investigations of the patient, and doctors go for expert opinion in critical cases and accuracy in lab reports.



### 3.2.4. Reliability Dimension

The patients' perception on reliability dimension of Government hospitals was analyzed and the results are presented in Table-5.

**Table-5. Patients' Perception on Reliability Dimension of Government Hospitals**

Reliability Dimension	Mean Score	Standard Deviation
Specialized and experienced doctors are available	3.66	0.91
The hospital has good facilities	3.60	0.95
The ambulance service is available for 24 hours	3.72	0.90
Doctors are performing their duties correctly and sincerely	3.33	1.20
The blood bank is available in the hospital	3.71	0.68

It is clear that the patients of Government hospitals are agreed with specialized and experienced doctors are available, the hospital has good facilities, the ambulance service is available for 24 hours and the blood bank is available in the hospital, while, they are neutral with doctors are performing their duties correctly and sincerely.

### 3.2.5. Responsiveness Dimension

The patients' perception on responsiveness dimension of Government hospitals was analyzed and the results are presented in Table-6.

**Table - 6. Patients' Perception on Responsiveness Dimension of Government Hospitals**

Responsiveness Dimension	Mean Score	Standard Deviation
Doctors/staff efficiently respond to the patients	3.62	0.80
Doctors/Staff are willing to help/facilitate the patients	3.36	1.13
Hospital gives the immediate treatment in the case of emergency	3.69	0.72
Hospital has simple procedure for admission	3.24	1.15
Doctors monitors the health of patients regularly	3.43	0.99

It is apparent that the patients of Government hospitals are agreed with doctors/staff efficiently respond to the patients and hospital gives the immediate treatment in the case of emergency, while, they are neutral with doctors/staff are willing to help/facilitate the patients hospital has simple procedure for admission and doctors monitors the health of patients regularly.

### 3.3. Socio Economic Profile of Patients and Their Perception on Service Quality of Government Hospitals

In order to examine the difference between socio economic profile of patients and their perception on service quality of Government hospitals, the ANOVA (Analysis of Variance) has been employed and the results are presented in Table-7.

**Table -7. Difference between Socio Economic Profile of Patients and Their Perception on Service Quality of Government Hospitals**

Particulars	F-Value	Sig
Gender and Service Quality	6.319	.012
Age and Service Quality	2.480	.043
Educational Qualification and Service Quality	7.313	.000
Occupation and Service Quality	35.116	.000
Monthly Income and Service Quality	19.193	.000

The F- value of 6.319 is significant at one per cent level indicating that there is a significant difference between gender of patients and their perception on service quality in Government hospitals. The F- value of 2.480 is significant at five per cent level indicating that there is a significant difference between age group of patients and their perception on service quality in Government hospitals. The F- value of 7.313 is significant at one per cent level indicating that there is a significant difference between educational qualification of patients and their perception on service quality in Government hospitals. The F- value of 35.116 is significant at one per cent level indicating that there is a significant difference between occupation of patients and their perception on service quality in Government hospitals. The F- value of 19.193 is significant at one per cent level indicating that there is a significant difference between monthly income of patients and their perception on service quality in Government hospitals.



### 3.4. Patients' Satisfaction about Government Hospitals

The patients' satisfaction about Government hospitals was analyzed and the results are presented in Table - 8.

**Table -8. Patients' Satisfaction about Government Hospitals**

Patients' Satisfaction	Mean Score	Standard Deviation
Admissions and Discharge Services	3.15	0.87
Nursing Services	3.08	0.96
Physician Services	4.16	0.50
Nutritional Services	3.11	0.95
Diagnostic Services	3.26	0.83
Accommodations/ Physical Facility	4.30	0.28
Emergency Services	4.64	0.17
Health Information Materials	4.34	0.26
Outcomes of Care	4.31	0.39
Aftercare Instructions	3.37	0.90

The results show that the patients of Government hospitals are highly satisfied with emergency services, while, they are satisfied with physician services, accommodations/ physical facility, health information materials and outcomes of care. Besides, they are neutral with admissions and discharge services, nursing services, nutritional services, diagnostic services and aftercare instructions.

### 3.5. Relationship between Service Quality Dimensions of Government Hospitals and Patients' Satisfaction

The relationship between service quality dimensions of Government hospitals and patients' satisfaction was analyzed by employing correlation analysis and the results are presented in Table-9.

**Table - 9. Relationship between Service Quality Dimensions of Government Hospitals and Patients' Satisfaction**

Particulars	Empathy	Tangible	Assurance	Reliability	Responsiveness	Patients' Satisfaction
Empathy	<b>1.00</b>					
Tangible	0.31**	<b>1.00</b>				
Assurance	0.33**	0.39**	<b>1.00</b>			
Reliability	0.29**	0.37**	0.37**	<b>1.00</b>		
Responsiveness	0.36**	0.38**	0.34**	0.34**	<b>1.00</b>	
Patients' Satisfaction	0.53**	0.56**	0.55**	0.54**	0.59**	<b>1.00</b>

Note: \*\* indicates significance at one per cent level.

The results show that the correlation co-efficient between empathy dimension and patients' satisfaction is 0.53, which is moderately and positively associated with each other at one per cent level of significance.

The tangible dimension and patients' satisfaction is moderately and positively correlated with each other with the value of 0.56, which is significant at one per cent level of significance.

The results indicate that the correlation co-efficient between assurance dimension and patients' satisfaction is 0.55, which is moderately and positively associated with each other at one per cent level of significance.

The reliability dimension and patients' satisfaction is moderately and positively correlated with each other with the value of 0.54, which is significant at one per cent level of significance.

The results show that the correlation co-efficient between responsiveness dimension and patients' satisfaction is 0.59, which is moderately and positively associated with each other at one per cent level of significance.



The analysis reveals that there is a significant and positive relationship between service quality dimensions of Government hospitals and patients' satisfaction. Hence, the null hypothesis of there is no significant relationship between service quality dimensions of Government hospitals and patients' satisfaction is rejected.

### 3.6. Patients' Loyalty towards Government Hospitals

The patients' loyalty towards Government hospitals was analyzed and the results are presented in Table-10.

**Table - 10. Patients' Loyalty towards Government Hospitals**

Patients' Loyalty	Mean	Standard Deviation
I would recommend the hospital to my friends	3.39	0.92
I say positive things about the hospital to other people	3.69	0.72
I would continue to seek medical services from the hospital	4.02	0.54
I refuse to change to another hospital	3.34	0.86

The results indicate that the patients of Government hospitals are agreed with they say positive things about the hospital to other people and they would continue to seek medical services from the hospital, while, they are neutral with they would recommend the hospital to their friends and they refuse to change to another hospital.

### 3.7. Impact of Service Quality Dimensions of Government Hospitals on Patients' Loyalty

In order to examine the impact of service quality dimensions of Government hospitals on patients' loyalty, the multiple linear regression has been applied and the results are presented in Table-11. The service quality dimensions are considered as independent variables and the patients' loyalty is considered as dependent variable.

The results indicate that the coefficient of multiple determinations ( $R^2$ ) is 0.58 and adjusted  $R^2$  is 0.57 indicating the regression model is good fit. It is inferred that about 57.00 per cent of the variation in dependent variable (Patients' Loyalty) is explained by the independent variables (Service Quality Dimensions). The F-value of 164.237 is statistically significant at one per cent level indicating that the model is significant.

**Table-11. Impact of Service Quality Dimensions of Government Hospitals on Patients' Loyalty**

Service Quality Dimensions	Regression Co-efficients	t-value	Sig.
Intercept	2.986**	13.018	.000
Empathy ( $X_1$ )	.470**	9.385	.000
Tangible ( $X_2$ )	.537**	12.609	.000
Assurance ( $X_3$ )	.302**	3.312	.001
Reliability ( $X_4$ )	.585**	7.127	.000
Responsiveness ( $X_5$ )	.625**	6.802	.000
$R^2$	0.58	-	-
Adjusted $R^2$	0.57	-	-
F	164.237	-	.000
N	600	-	-

Note: \*\* Significance at one per cent level.

The results show that responsiveness, reliability, tangible, empathy and assurance dimensions have a positive and significant impact on patients' loyalty towards Government hospitals at one per cent level. Therefore, the null hypothesis of there is no significant impact of service quality dimensions of Government hospitals on patients' loyalty is rejected.

## 4. CONCLUSION

The study reveals that among empathy dimension, the patients of Government hospitals are agreed with doctors have genuine concern about patients and doctor care their patients, while, they are neutral with staff and nurses care the patient, hospital put their best efforts to provide comfort to patients and hospital is neat and clean.





Among tangible dimension, the patients of Government hospitals are agreed with lab and pharmacy facilities within the hospital, while, they are neutral with waiting facilities for attendants and patients, healthy environment at hospital, cleanliness of toilets/bathrooms and cleanliness in wards/rooms (sheets, floor). Meanwhile, they are disagreed with hygienic conditions at hospital.

Among assurance dimension, the patients of Government hospitals are agreed with doctor's expertise and skills, doctors almost make right diagnoses and special attention to emergency patients, while, they are neutral with thorough investigations of the patient, doctors go for expert opinion in critical cases and accuracy in lab reports.

Among reliability dimension, the patients of Government hospitals are agreed with specialized and experienced doctors are available, the hospital has good facilities, the ambulance service is available for 24 hours and the blood bank is available in the hospital, while, they are neutral with doctors are performing their duties correctly and sincerely.

Among responsiveness dimension, the patients of Government hospitals are agreed with doctors/staff efficiently respond to the patients and hospital gives the immediate treatment in the case of emergency, while, they are neutral with doctors/staff are willing to help/facilitate the patients, hospital has simple procedure for admission and doctors monitors the health of patients regularly.

The patients of Government hospitals are highly satisfied with emergency services, while, they are satisfied with physician services, accommodations/ physical facility, health information materials and outcomes of care. Besides, they are neutral with admissions and discharge services, nursing services, nutritional services, diagnostic services and aftercare instructions. The correlation analysis shows that the service quality dimension of empathy, tangible, assurance, reliability and responsiveness are positively and significantly associated with patients' satisfaction of Government hospitals.

The patients of Government hospitals are agreed with they say positive things about the hospital to other people and they would continue to seek medical services from the hospital, while, they are neutral with they would recommend the hospital to their friends and they refuse to change to another hospital.

The regression analysis indicates that responsiveness, reliability, tangible, empathy and assurance dimensions have a positive and significant impact on patients' loyalty towards Government hospitals.

In order to improve the service quality of Government hospitals, staff and nurses should care the patient, hospital put their best efforts to provide comfort to patients and hospital should be neat and clean. The Government hospitals should improve the waiting facilities for attendants and patients, healthy environment at hospital, cleanliness of toilets/bathrooms and cleanliness in wards/rooms (sheets, floor) and hygienic conditions of the hospitals.

Besides, the Government hospitals should concentrate thorough investigations of the patients doctors go for expert opinion in critical cases and accuracy in lab reports. Meanwhile, doctors must perform their duties correctly and sincerely and doctors/staff should be willing to help/facilitate the patients. The Government hospitals should simplify the procedure for admission and doctors should monitor the health of patients regularly. In order to increase the patients' satisfaction and loyalty, the Government hospitals must improve the admissions and discharge services, nursing services, nutritional services, diagnostic services and aftercare instructions.

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