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# PATIENTS PERCEPTIONS TOWARDS THE SERVICES OF THE HOSPITALS – A STUDY IN VELLORE DISTRICT, TAMILNADU

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#### **ABSTRACT**

Customer satisfaction remains the most fascinating topic. The primary objective of organizations is to maximize profits while trying to reduce costs. Increasing sales with lower costs can increase profits. Customer satisfaction, which promotes customer loyalty, is part of sales growth. Patient satisfaction regarding health care is a multidimensional concept that now becomes a very crucial health care outcome. The behaviours of healthcare service providers have altered significantly in recent years as a result of technology innovation. Due to intense rivalry in the industry, the health care system is currently a challenge for all governments, states, political parties, and insurance companies. The private sector, previously dominated by non-profit/public hospitals, is now playing a larger role in health care delivery. This study the researcher has attempted to analyse the level of satisfaction of patients and their perceived quality of services provided by the hospitals. It is hoped that the health care providers would pay attention to quality in every aspect of patient care, both medical and non medical. As the patient satisfaction is the valuable asset of the health care providers, understanding the patient and believing that he is most important, goes a long way towards the success of every health care provider.

Key Words: Patients, Satisfaction, Hospital, Healthcare, Perspective, etc,

#### INTRODUCTION

The behaviours of healthcare service providers have altered significantly in recent years as a result of technology innovation. Due to intense rivalry in the industry, the health care system is currently a challenge for all governments, states, political parties, and insurance companies. The private sector, previously dominated by non-profit/public hospitals, is now playing a larger role in health care delivery. Through increased service quality metrics, building trust and a favourable reputation, this rivalry culminates in patient satisfaction. In achieving these important goals in healthcare organizations, some issues have arisen that need to be addressed. For example, who wants to improve the quality of healthcare services? Who makes changes and develops new methods?

In India, the growth rate of the share of the services sector increased dramatically after 1980, peaking in the last decade of the 20th century. Peaking around 1985, it overtook agriculture and now accounts for his 47.9% of gross domestic product. The service sector is now close to the size of the primary and secondary sectors combined. Over the last decade (1994-2004), the services sector grew at a CAGR of 7.9%, followed by agriculture at 3% and manufacturing at 5.2%3. The tendency to present both threats and opportunities is inherent in an increasingly competitive market. This requires service providers to market their services more professionally in order to be successful.

HEALTH EXPENDITURE -INDIA AND OTHER DEVELOPING COUNTIRES

S.No.	Countries	Total Expenditure On health as % GDP	Per Capita total Expenditure on health at International Dollar rate	Government Expenditure as% of total expenditure on health	Private Expenditure as% of total expenditure on health	Government Expenditure of Health as % of total Government Expenditure
1.	Brazil	7.6	597	45.3	54.7	10.3
2.	China	5.6	278	36.2	63.8	9.7
3.	India	4.8	82	24.8	75.2	3.9
4.	Korea	5.6	1074	49.4	50.6	8.9
5.	Thailand	3.3	260	61.6	38.4	13.5

#### HEALTH MANPOWER AND HOSPITAL BEDS

S.No	Countries	Physicians Per 1,000 population	Nurses per 1,000 population	Midwives Per 1,000 population	Hospital beds Per 1000 population
1.	Indian Public sector	0.2	_	0.2	0.4
2.	India Total	1.0	0.9	0.2	0.7
3.	World	1.5	3.3	0.4	3.3
4.	Low income Countries	1.0	1.6	0.3	1.5
5.	Middle-income	1.8	1.9	0.6	4.3
	countries				
6.	High-Income countries	1.8	7.5	0.5	7.4

#### HEALTH INDICATORS INDIA AND DEVELOPING COUNTRIES

S.No	Country	Life expectancy at birth year	Infant Mortality Rate
1.	Brazil	70	34
2.	China	72	31
3.	India	62	38
4.	Republic of korea	77	6
5.	Thailand	70	21

#### **Medical Tourism in India**

# TREATMENT COSTS (\$)

S.No.	Procedure	U.S.	India	South	Thailand
				Africa	
1	Facelift	8000 -	10,000-	1252	2682
		20,000	20,000		
2	Hip replacement	17,000	2,500	6671	N.A.
3	Open Heart Surgery	1,50,000	5,000- 10,000	13,333	7,500
4	Eye (lasik)	3,100	7,000	2,166	730

#### Health Care in Tamilnadu

Tamil Nadu boasts of super fitness care offerings which cater to the wishes of the humans even with inside the faraway regions of the nation. The nation has located fitness care excessive on its precedence listing and has taken every attempt to make sure that nice fitness care is to be had to all its humans. Basic fitness centres are prolonged to the mass of the populace, Endemic diseases are eliminated or properly below control.

# **HEALTH INDICATORS OF TAMIL NADU**

S.No.	Indicator	Status 2008	Goal 2017
1	Life Expectancy at birth years	65	70
2	Crude Birth rate per 1000 population	19.2	15
3	Crude death rate per 100 population	7.9	6
4	Infant Mortality rate per 1000 live births	57	28
5	Maternal Mortality rate per 1000 live births	1.3	<1

#### SOURCE OF HEALTH CARE

S.No	No Particulars Standard of Living				
		LOW	MEDIUIM	HIGH	ALL
1	Public Medical Sector	53.5	32.9	6.9	37.9
2	Private Medical Sector	45.4	66.5	91.8	61.1
3	NGO/Trust	0.5	0.5	0.3	0.5
	Hosptials/Clinics				

4	Other Sources	0.6	0.2	0.1	0.5
	TOTAL	100	100	100	100

# PUBLIC HEALTH FACILITIS IN TAMIL NADU

Health Facilities	2018-2019
Hospitals	315
Dispensaries	213
Other Medical Institutions	29
Primary Health Centres	1,415
Beds in Hosptials and Dispenaries	51,765
Doctors	9,543
Nurses	9757
Village Health-Nurses	10,366
	Hospitals  Dispensaries  Other Medical Institutions  Primary Health Centres  Beds in Hospitals and Dispenaries  Doctors  Nurses

#### STATEMENT OF PROBLEM

Patient satisfaction is the health care recipient's reaction to aspects of his or her service experience. Patient satisfaction belongs to the service dimension as opposed to the technical dimension of quality of care. Most patients report few problems related to technical quality of care in hospitals and more over do not feel qualified to judge technical quality and therefore assume technical competence. The study suggested that the management should put more effort in improving the facilities and cleanliness. As a health care institution, hygiene is very important to prevent any infection and worsen the patient's condition. Both government and private hospital are controlled by Ministry of Health (MOH). They are referring to the same standard but it depends on the management to implement it and to serve the patients. As revenue affects the survival of private hospital, the management must monitor the service quality continuously to ensure that the patients are satisfied and willing to revisit again. Customer loyalty is influenced by the satisfaction. Thus, identify the service quality that affecting the patients' satisfaction is helpful in planning the marketing strategy. The policy-makers are able to implement and provide better service to the patient so that they will visit the same health care institution again.

#### **OBJECTIVES OF THE STUDY**

1. To review the growth and development of health care services in India in general and Vellore district in particular.

- 2. To study the awareness of patients towards health care services of the private hospitals.
- 3. To study the criteria used by the patients in choosing the hospital service providers.
- 4. To examine the level of satisfaction of patients and the factors influencing their level of satisfaction.
- 5. To evaluate the quality of health care services provided by the private hospitals.
- 6. To offer suggestions in enhancing the quality of hospital services and patient satisfaction.

# REVIEW OF LITERATURE

- 1. **Liga Surydana (2017)** the motive of this study is to research the impact of provider high-satisfactory on consumer cost in addition to on public health facility affected person delight. Population research has been carried out in authority's hospitals. Data evaluation used structural equation modelling partial least square. Sample on this studies are 158 sufferers from authorities hospitals with inside the district Bandug, Indonesia. The effects confirmed a large impact on provider high-satisfactory on consumer cost and affected person delight. Furthermore, the effects additionally confirmed that gender performs a position as moderating variable among consumer cost and affected person delight. This suggests that the offerings supplied via way of means of public hospitals can improve consumer cost implications on affected person delight.
- 2. **B.Thulasi Priya .et al., (2018)** studied the look at is to pick out carrier high-satisfactory and affected person delight in non-public hospitals with unique connection with the town Coimbatore. Data have been accumulated from 250 sufferers in Coimbatore the use of handy sampling approach. Statistical equipment consisting of percentage evaluation and chi-rectangular evaluation has been used to research the information. The findings of the look at display that there's no considerable dating among age, gender, marital status, schooling, career, month-to-month own circle of relatives earnings and delight degree in non-public hospitals.
- 3. **Dr.k.veeraraghavan (2021)** Analyses the general public fitness coverage must be making sure the accessibility and affordability to number one fitness take care of all the humans. Health care is the essential proper of the humans then most effective the humans can stay with inside the international for a protracted time. In this look at the bulk of the sufferers happy with the fitness offerings supplied with the aid of using Private Hospitals in Thirualluvar District.
- 4. **Babatola et al. (2022)** This look at assessed affected person delight with fitness care offerings and identifies elements related to affected person delight in decided on fitness centres in Ondo State. Gender, degree of schooling and career are predictors of delight with fitness offerings. Health care vendors want to paintings on fitness care transport to enhance care recipients' delight with care.

# RESEARCH METHODOLOGY RESEARCH DESIGN

Descriptive research

A pilot study was conducted with 78 respondents to test for its reliability. For the study the final Questionnaire was framed checking the alpha (Cronbash) values. Respondents were selected from different zones in Vellore district of Tamilnadu. The reliability for the pilot study was tested statistically using Cronbach's Alpha and it was found to be 0.795.

In the current research study the sampling technique, used is stratified convenient. In which Vellore district is stratified. In each of the zone in the Vellore district were considered as strata, the samples were chosen from each strata using convenient sampling technique. The population is all the private hospital patients belong to Vellore district. Respondents were contacted personally and administered the questionnaire.

Table showing the factor loading values of various dimensions and its attributes

Dimensions/		Factor	Dimension
Factors	Item	Loading	Loading
Registration	Reception Services	0.89	
Service	Availability of information	0.77	0.77
	Waiting time for admission	0.81	
Physicians'	Professional competence of doctors	0.90	
competence	Time spent by the doctor for diagnosis	0.89	
and medical care	Explanation about the health and treatment	0.75	
	Attitude and behaviour	0.69	_
	Willingness to listen/answer patient's questions	0.75	0.79
	Psychological support	0.84	_
	Health education provided	0.91	
	Daily visit	0.71	
	Professional appearance	0.64	
Nursing	Nursing skill	0.86	
care	Attitude and behaviour	0.79	
	Promptness in meeting needs	0.77	
	Medication at regular intervals is in time	0.69	0.78
	Psychological support	0.75	
	Professional appearance	0.84	
Room	Calm and Quietness in room	0.91	
environment	Bed size and quality	0.75	
	Facilities (Fan, water, sanitation, etc)	0.90	0.86
	Cleanliness	0.89	0.80
	Appearance	0.82	
	Ventilation	0.79	
Dietary	Timeliness of food served	0.81	
Services	Diet	0.79	
	Menu	0.92	0.85
	Taste	0.84	
	Temperature of food served	0.88	
	Containers	0.89	
	Presenting and explanation of the bill	0.75	0.77

Discharge	Discharge instructions	0.84	
process and	Discharge summary	0.91	
Billing	Time taken for the patient to leave the	0.75	
Dilling	hospital	0.73	
Supporting	Skill & knowledge of the supportive	0.90	
staff	staff	0.90	
	Promptness in meeting needs	0.79	0.80
	Care & concern	0.81	
	Appearance	0.79	

The factors of current study identified are Registration Service, Physicians' competence and medical care, Nursing care, Room environment, Dietary Services, Discharge process and Billing, and supporting staff. The factor Registration Service has an overall loading of 0.77 and it ranges from 0.76 to 0.91. The factor Physicians' competence and medical care has an overall loading of 0.79 and it ranges from 0.64 to 0.9. The factor nursing care has an overall loading of 0.78 and it ranges from 0.75 to 0.86. The factor Room environment has an overall loading of 0.86 and it ranges from 0.75 to 0.91. The factor Dietary Services has an overall loading of 0.85 and it ranges from 0.81 to 0.92. The factor Discharge process and Billing has an overall loading of 0.77 and it ranges from 0.75 to 0.91. The factor Supporting staff has an overall loading of 0.80 and it ranges from 0.79 to 0.90. The overall factor loading to all the 38 attributes is 0.78.

#### **SAMPLING TECHNIQUES**

The research study used stratified convenient sampling technique, in which each of the zone in the Vellore district were considered as a strata, the samples were chosen from each strata using convenient sampling technique. The population is all the private hospitals patients belong to Vellore district. Respondents were contacted personally and administered the questionnaire.

#### SAMPLE SIZE

The sample size for the current study is 658

# FRAMEWORK OF ANALYSIS

The data collected were analysed using relevant statistical tools to make valid inferences based on the objectives of the study. Descriptive tables and percentages are used for analysis. Further the following specific tools are used.

- Chi-square analysis is used to test the influence of personal factors on the awareness of the respondents regarding the various types of health care services and their charges provided by the selected hospitals.
- A five point scale similar to Likert scale has been constructed to analyse the satisfaction level of the patients.
- Average score analysis is carried out to analyse the influence of personal factors on the level of patient satisfaction.

- Factor analysis is performed to study the impact of influencing factors on patient satisfaction.
- Average rank analysis is used to study the factors influencing the patients in choosing the hospitals for treatment.
- Gap analysis is carried out to evaluate the quality of health care services of the selected hospitals, t-test has been applied to test the significance of the gap between the expected and the perceived quality aspects at 5% level of significance.

#### **HYPOTHESIS**

H<sub>0</sub>: There is no significant relationship between age and the patient satisfaction in terms of the factors Registration Service, Physicians' competence and medical care, Nursing care, Room environment, Dietary Services, Discharge process and Billing, and Supporting staff.

H<sub>0</sub>: There is no significant relationship between monthly income and the patient satisfaction in terms of the factors Registration Service, Physicians' competence and medical care, Nursing care, Room environment, Dietary Services, Discharge process and Billing, and supporting staff.

 $H_0$ : There is a significant relationship exists among the various factors of patients satisfaction towards hospital services

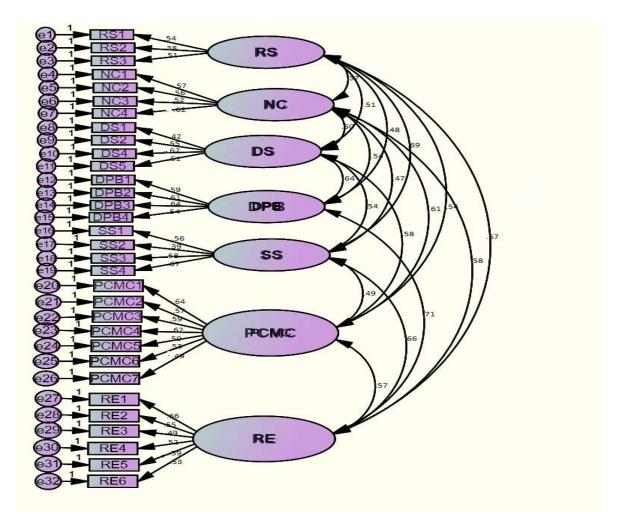


Figure 4.1.1 CFA Model and Evaluation of the patient's satisfaction model

Table 4.23 Table showing the values of SEM model fitness indices

S. No	Model Fitness Index	Value
1.	Chi-square / Degrees of Freedom	1.018
2.	Significance Value	0.214
3.	Goodness of Fitness index (GFI)	0.901
4.	Goodness of Fitness index (AGFI)	0.906
5.	Comparative Fit Index (CFI)	0.942
6.	Root Mean Square Residuals (RMR)	0.009
7.	Root Mean Square Error of Approximation (RMSEA)	0.011

According to the statistics shown in the table, when Chi-square is divided by the total number of degrees of freedom, the result is 1.018. This measure should never exceed 5, as doing so will prohibit models from being improperly fitted. The comparatively low number discovered in this inquiry indicates that the model fit was sufficient. Given that the value of significance is greater than 0.05, it is likely that the model is accurate in general. Both the GFI and AGFI index values are greater than 0.90, suggesting that an exact match exists. The value of the GFI index is 0.901, while the value of the AGFI index is 0.906. These numbers are both more than 0.90. However, it is also known that the RMR value is 0.009 and a number less than 0.08 indicates that a suitable match will be found. It is known that the RMR value is 0.009, in addition to the fact that the CFI index is 0.942, which suggests a strong fit. The Root Mean Square Error of Approximation, or RMSEA for short, is related to the model's residuals in some way. To indicate that the fit is satisfactory, the RMSEA should have a value of 0.011, which is the average value. Given that the RMSEA for this model is 0.012, which is less than 0.060, we may conclude that the model is well-fitting. It has been determined that the global Structural Equation Model incorporates the characteristics investigated in this particular research study and that this model is appropriate. This discovery was made feasible by the suitability of this model.

# **CONCLUSION**

This study the researcher has attempted to analyse the level of satisfaction of patients and their perceived quality of services provided by the hospitals. It is hoped that the health care providers would pay attention to quality in every aspect of patient care, both medical and non medical. In the present situation where the globe is facing the crises of Covid-19 and trying to overcome from it and India takes a better step towards the field of medical care and overcame the challenges and manage it in a better way. The services provided by the hospital are tremendous and the way of tackling the crises is also appreciated. In terms of patients satisfaction it is out of the services rendered by the hospital keeping the various factors which leads to the helping the patients in their tough time and leads to create the trust and faith of the patients. As the

patient satisfaction is the valuable asset of the health care providers, understanding the patient and believing that he is most important, goes a long way towards the success of every health care provider.

#### REFERENCES

- 1. Abusaleh Shariff et al., "Health Care Financing and Insurance: Perspective For The Ninth Plan, 1997-2002", Margin, Vol.31, No.2, January-March, 1999, pp. 38-64.
- 2. Chaitra N. Garalapuri and Ravi, S., "A New Measure of Customer Satisfaction," Indian Management, Vol. 44, No. 11, November, 2005, pp. 74-75.
- 3. Dagmara Scalise, "The Survey Says," Hospitals and Health Networks, Vol.79, No. 10, October, 2005, p.14.
- 4. Datta, P. and Krishnan G.S., "The Health Travellers," Business world, Vol.23, No.30, December, 2003, pp.30-38.
- 5. Deborah M. Cardello, "Improve Patient Satisfaction With a Bit of Mystery", Nursing Management, Vol. 32, No. 6, June, 2001, pp. 36-38.
- Dr.B.Thulasi Priya, M.Com., M.Phil.,Ph.D and S.Durai Eswari, "SERVICE QUALITY AND PATIENT SATISFACTION IN PRIVATE HOSPITALS WITH SPECIAL REFERENCE TO COIMBATORE CITY" published in International Journal of Pure and APPlied Mathematics Vol. 119 No. 18 2018, PP: 3639-3648, ISSN: 1314-3395
- 7. Dr.P.Venkatesh (2022). A Study on A Study on Customer's Perception towards Web Application Firewall with Special Reference to Strongbox IT Private Limited in Journal of Satraachee, ISSN: 2348-8425, Vol.37 (25), 191-202.
- 8. Dr.P.Venkatesh (2022). A STUDY ON EFFECTIVENESS OF WORKING CAPITAL MANAGEMENT PRE AND POST COVID in International Journal of Business Management & Research (IJBMR), ISSN (P): 2249-6920; ISSN (E): 2249-8036, Vol. 12, Issue 2, Dec 2022, 59-66.
- 9. Dr.P.Venkatesh (2022). A STUDY ON INVESTORS PERCEPTION TOWARDS SYSTEMATIC INVESTMENT PLAN (SIP) in International Journal of Business Management & Research (IJBMR), ISSN (P): 2249-6920; ISSN (E): 2249-8036, Vol. 12, Issue 2, Dec 2022, 53-58.
- Dr.P.Venkatesh (2022). An Emprical Study Towards Out Patients Perception Towards Services Quality Of Multi Speciality Hospitals - Scenirio Of Vellore District Tamilnadu in Journal of Journal of Pharmaceutical Negative Results, ISSN: 2229-7723, Vol.13 (9), 1550 - 1559. DOI: 10.47750/pnr.2022.13.S09.189
- 11. Dr.P.Venkatesh (2022). Business Analytics Contribution in the growth of Indian Digital Business in 1st International Conference on Computational Science and Technology (ICCST), 978-1-6654-7655-3/22/\$31.00, 2022 IEEE, DOI: 10.1109/ICCST55948.2022.10040343.
- 12. Dr.P.Venkatesh (2022). Impact of Solar Energy on Mitigating Climate changes for a Sustainable Development in India in International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), 2022, 978-1-6654-6275-4/22/\$31.00 ©2022 IEEE | DOI: 10.1109/ICPECTS56089.2022.10046744.
- 13. Dr.P.Venkatesh (2022). Patients Satisfaction towards the Services of the Hospitals with Reference to Vellore District, Tamilnadu in Journal of Journal of Pharmaceutical

- Negative Results, ISSN: 2229-7723, Vol.13 (8), 1502-1510. DOI: 10.47750/pnr.2022.13.S08.181
- 14. Dr.P.Venkatesh (2022). PREDICTIVE ANALYTICS OF SOLAR POWER GENERATION USING DATA SCIENCE in International Journal of Business Management & Research (IJBMR), ISSN (P): 2249-6920; ISSN (E): 2249-8036, Vol. 12, Issue 2, Dec 2022, 67–72.
- 15. Dudung Juhana, EsterManik, Catleya Febrinella and Iwan Sidharta AN EMPIRICAL STUDY ON PATIENT SATISFACTION AND LOYALTY IN A PUBLIC HOSPITAL IN BANDUNG, INDONESIA (2015) Published in International Journal of Economics and Business Research Vol. 13, No. 6, PP: 4305-4326.
- 16. G. Velmurugan, R. Shubasini, N. SaravanaBhavan, V.Selvam, A Study on Service Quality of a Health Care Organization, International Journal of Online and Biomedical Engineering, Vol. 15, No. 10, 2019, <a href="https://doi.org/10.3991/ijoe.v15i10.10906">https://doi.org/10.3991/ijoe.v15i10.10906</a>
- 17. G. Yoganandham, Jayendira P. Sankar, R. Kalaichelvi, COVID-19 and Its Socio-Economic Impact on Selected Rural Areas of Katpadi Taluk in Vellore District of Tamil Nadu, Journal of Human Resource and Sustainability Studies, ISSN Online: 2328-4870 2020, 8, 331-348.
- 18. Georgette M. Zifko-Baliga and Robert F.Krampf, "Managing Perceptions of Hospital Quality", Marketing Health Services, Vol.17JNo.1,Spring 1997, pp.28-35.
- 19. Hardeep Chahal "Strategies for Enhancing Consumer Satisfaction in Rural Health Services in J & K", Indian Journal of Marketing, Vol.XXXIII, No.9, September, 2003, pp.13-17
- 20. James Ndambuki, The level of patients' satisfaction and perception on quality of nursing services in the Renal unit, Kenyatta National Hospital Nairobi, Kenya, Open Journal of Nursing, 2013, 3, 186-194.
- 21. John McKeever, "Mapping The Patient Experience", Marketing Health Services, Vol.24, No.4, Winter, 2004, pp.14-19.
- 22. Laurette Dube, "What's Missing From Patient- centered Care?" Marketing Health Services, Vol.23, No.l, Spring, 2003, pp.30-35.
- **23.** Patric Low Kim Cheng, "An Expanded Marketing Concept of Health Care Services The Ten P's and Ten S's", The ICFAI. Journal of Services Marketing, Vol.I 11, No.3, September, 2005, pp.31-40.