AN ASSESSMENT OF PATIENTS SATISFACTION TOWARDS HEALTH CARE SERVICES PROVIDED BY PUDUVAI LIFE LINE HOSPITAL

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*Abstract:*This descriptive research has made an attempt to assess the satisfaction level of patients towards health care services offered by Puduvai Life Line Hospital by administering a well-structured questionnaire to 110 out patients of the hospital, selected using Convenience sampling technique. The study has revealed that most patients choose a hospital for making their medical consultations based on their self belief and trust and opinion of peers. Services of the hospital and quality of doctors play a significant role in patients deciding about hospital to make their consultations.Barring a solitary patient, all the other patients have rated the hospital as good or very good. This good rating of the hospital by the patients is due to satisfactory diagnosis procedure consisting of interpretation of investigation report by the doctors of the hospital, quality of medicines prescribed, proper explanation of disease by the doctors, prompt conduct of investigation, good Communication by doctors, efficiency of doctors, minimum cost of consultation, minimum Time required for consulting doctors, timely Availability of doctors, minimum cost of medicines, suitable Number of investigations conducted, minimum Cost of investigation and suitable timing. However, the hospital needs to concentrate on improving seating facilities by providing more chairs for patients waiting for consulting doctors and waiting time of the patients needs to be minimized. Time factor exerts significant impact on patients' overall satisfaction about the services provided by the hospital, suggesting the importance to be attached to minimising waiting time for patients.

*Keywords:*Patients, Life Line Hospital, Satisfactory medical services, Seating arrangements.

I.   INTRODUCTION

The health care industry comprising of hospitals has started attaching paramount importance to qualitative servicing of patients in the recent years, particularly after the 1990s. Hospitals are incorporating patients satisfaction in their health care mission (Aerlyn GD. and Paul P. L., 2003). Hospitals have started crafting strategies for improving quality of medical services provided to patients, thus focussing on better market positioning of their organisation (Kathryn et al., 2004). French government made it obligatory for all its hospitals to evaluate satisfaction level of their patients since 1996 (Laurent et al., 2006) while similar order prevail in Germany since 2005 (Tonio, 2011). In England, National Survey Programme has been launched by the Department of Health on 2002, under which all the NHS trusts in the country have to assess satisfaction of patients every year and submit the report to their respective regulators (Crispin et al., 2002). Hence, assessment of satisfaction of patients has assumed as a significant benchmark to gauge and improve quality of services of health care organisations and drafting effective strategic planning towards this goal (Elaine et al., 2002).

II.   PATIENT SATISFACTION

Donabedian Quality Assessment Model defines patients satisfaction as their experience on processes and structures provided by health care organisations, measured through their reported experiences (Oyvind et al., 2011). Jenkinson et al., (2002) and Ahmed et al. (2011) have suggested that patients satisfaction may be assessed on the basis of their attitude towards medical attention provided by the health care organisations.

Satisfaction of patients may be referred to as the difference between expected medical attention of the patients from their health care organisation and their perception about the actual attention received (Iftikhar et al., 2011).

Patients satisfaction will exert a significant impact on endeavour of the health care organisation to improve quality of their services through effective strategy formulation, cost minimisation, meeting the anticipation of patients, minimising waiting time of patients, constant monitoring of health care plans and formulate and execute effective strategic planning for efficient management (Nicholaset al., 2005; Shou-Hisaet al., 2003).

Constant striving of hospitals towards patients satisfaction will also reflect upon their sincere effort to involve patients as partners, involving in strategic decision-making to improve quality of their services (Sarah LC. Et al., 2008).Constant assessment of patients satisfaction leads to patients positively responding to treatment and sticking to a particular health care provider (Rama M. and Kanagaluru SK., 2011).

However, some authors such as Linda D.U. (2002)have dismissed the entire process of measuring patients satisfaction as subjective and unreliable. Despite such criticisms, measuring patients satisfaction assumes immense significance for all health care providers and this research has made an attempt to assess satisfaction level of patients on the services rendered by Puduvai Life Line Hospital, Puducherry.

III.   OBJECTIVES OF THE STUDY
   a) To assess the factors influencing patients choosing particular hospital for their medical consultancies;
   b) To assess the opinion of patients about Puduvai Life Line Hospital;
   c) To identify the factors influencing satisfaction level of patients about services provided by Puduvai Life Line Hospital.

IV.   METHODOLOGY

The proposed research is descriptive in nature, purely based on primary data, collected by administering a well-structured questionnaire to patients who visited Puduvai Life Line Hospital at Puducherry as Out Patients. Sample frame for the study is Puduvai Life Line Hospital while patients who visited the hospital constitute the study population. Sample size for the study is 110 while Convenience sampling method has been adopted to draw sample units for the study. Data collected has been represented in tables and figures and analysed using MS Excel and SPSS, employing the statistical tools of Mean, Frequency, Percentage, Cluster Analysis, Correspondence Analysis and ANOVA.

V.   DATA ANALYSIS

5.1 Demographic Profile of Respondents
Of the 110 respondents selected for this study, 78 are males and 32 are females; 13 are aged less than 30 years, 59 are aged 30-50 years and 38 are aged above 50 years; 16 are government employees, 16 are private employees, 25 are businessmen, 10 are students, 8 are housewives and 35 are pensioners; 15 are educated up to HSE, 69 are graduates, 20 are post-graduates while 6 possess technical/diploma as educational qualifications; 65 have monthly income of less than Rs. 25,000, 29 have income of Rs. 25,000-50,000, 9 have an income of more than Rs. 50,000 while the rest 7 do not have any income; 103 are married and a mere 6 are unmarried and there is a solitary separated respondent.

5.2 Factors Influencing Decision to Consult a Particular Hospital
Choosing a particular hospital is very important decision to be made as it is almost a matter of life or death and this decision will be made with utmost caution. The factor which influences a person to choose a particular hospital has been displayed in Table 1.

Table 1: Factor Influencing Decision to Consult a Particular Hospital

Factor	Frequency	Percent
Self	57	51.4
Market Research	20	18.5
Friends/Relatives	33	30.1
Total	110	100

It can be observed from Table 1 that majority of the patients (51.4%) prefer to consult a particular hospital based on their self belief and confidence about the hospital while a little less than one-third of them (30.1%) rely on their friends/relatives to choose a hospital and a little less than one-fifth of them (18.5%) are influenced by market research undertaken by them to choose a particular hospital.

5.3 Factors Considered by Patients for Choosing Hospital for Consultation
Patients might consider many factors before deciding to approach the hospital for consultation and Table 2 displays the feature of hospital considered by patients before choosing a particular hospital for consultation.

Table 2: Factors Considered for Consultation

Factor	Frequency	Percent
Goodwill	7	6.8
Proximity to House	13	12.2
Service Provided	54	48.5
Quality of Doctors	36	32.5
Total	110	100

Table 2 displays that little less than half of the patients (48.5%) consider services provided by the hospital as the important feature to be analysed for deciding about the hospital to be consulted while little less than one-third of them 32.5%) consider quality of doctors as important feature. 12.2% of the patients consider goodwill of the hospital while 6.8% give importance to proximity of the hospital to their house .

5.4 Rating of the Hospital by the Patients
The patients have been asked to rate the hospital in a five point scale ranging from Very Bad to Very Good and the resultshave been depicted in Table 3.

Table 3: Rating of the Hospital by the Patients

Rating	Frequency	Percent
Bad	1	0.9
Good	67	60.9
Very Good	42	38.2
Total	110	100

Table 3 displays a rosy picture for the hospital as barring a solitary patient, all of them have rated the hospital either as good or very good.

5.5 Patients Opinion about Hospital Services
The patients have been required to indicate their level of satisfaction regarding different services offered by the hospital in a five point scale ranging from Highly Dissatisfactory to Highly Satisfactory and the results have been displayed in Table 4.

Table 4: Rating of Different Services of the Hospital by the Patients

Service	Mean	Service	Mean
Seating arrangement	2.7727	Cleanliness	3.2636
Timings	3.4818	Services of Nursing Staff	3.3000
Availability of Doctors	3.5455	Communication by Doctor	3.9273
Explanation of Disease	4.2091	Efficiency ofDoctor	3.9455
Prompt Conduct of Investigations	3.8273	No. of Investigations Conducted	3.4455
Interpretation of Investigation Report by doctor	4.4182	NatureofMedicinesPrescribed	4.3455
Time Required for Consulting Doctor	3.5636	TimetakenforInvestigation	3.2727
TimeSpentinpharmacy	3.3545	Waiting Time	2.7364
Time took by reception staff to attend you	2.7364	Cost of Consultation	3.5545
Cost of investigation	3.41882	Cost of Medicines	3.4909

Table 4 highlights that the patients are very much satisfied with the diagnosis procedure consisting of interpretation of investigation report by the doctors of the hospital followed by quality of medicines prescribed, proper explanation of disease by the doctors, prompt conduct of investigation, Communication by doctors, efficiency of doctors, cost of consultation, Time required for consulting doctors, Availability of doctors, cost of medicines, Number of investigations conducted, Cost of investigation and timing. The patients have rated waiting time in the hospital, seating arrangements provided by the hospital and Time took by reception staff to attend as below average while they have rated the services of Time taken for investigation, cleanliness, services of nursing staff and Time spent in pharmacy as average.

5.6 Relationship Between Patients' Gender and Their Opinion About Hospital Services
Relationship between patients' gender and their opinion about hospital services has been explored using ANOVA and the results have been displayed in Table 5.

Table 5: Relationship Between Patients' Gender and Their Opinion About Hospital Services

Service	Sig.	Service	Sig.
Seating arrangement	0.147	Interpretation of investigation report by doctor	0.882
Cleanliness	0.344	Nature of medicines prescribed	0.629
Timings	0.006	Time required for consulting doctor	0.551

Services of the nursing staff	0.914	Time taken for investigation	0.325
Availability of doctors	0.888	Time spent in pharmacy	0.358
Communication by doctor	0.29	Waiting time	0.307
Explanation of disease	0.502	Time took by reception staff to attend you	0.921
Efficiency of doctor	0.905	Cost of consultation	0.344
Prompt conduct of investigations	0.884	Cost of investigation	0.789
No of investigations conducted	0.68	Cost of medicines	0.266

Table 5 suggests that there is no relationship between gender of patients and their opinion about all the services provided by the hospital barring timings factor and the nature of this relationship is displayed in Table 6.

Table 6: Nature of Relationship Between Patients Opinion about Timings of Hospital and their Gender

Gender	Mean	N	Std. Deviation
Males	3.3718	78	.60537
females	3.7500	32	.71842
Total	3.4818	110	.65988

Table 6 highlights that female patients are more appreciative about the timings maintained by the hospital when compared with their male counterparts.

5.7 Relationship Between Patient's Age and Their Opinion About Hospital Services

The relationship Between Patients' Gender and Their Opinion About Hospital Services has been explored using ANOVA and the results have been depicted in Table 7.

Table 7: Relationship Between Patient's Age and Their Opinion About Hospital Services

Service	Sig.	Service	Sig.
Seating arrangement	0.046	Interpretation of investigation report by doctor	0.268
Cleanliness	0.771	Nature of medicines prescribed	0.159
Timings	0.985	Time required for consulting doctor	0.445
Services of the nursing staff	0.942	Time taken for investigation	0.522
Availability of doctors	0.338	Time spent in pharmacy	0.275
Communication by doctor	0.181	Waiting time	0.152
Explanation of disease	0.376	Time took by reception staff to attend you	0.241
Efficiency of doctor	0.114	Cost of consultation	0.625
Prompt conduct of investigations	0.163	Cost of investigation	0.472
No of investigations conducted	0.666	Cost of medicines	0.644

Table 7 suggests that there is no relationship between age of patients and their opinion about all the services provided by the hospital barring seating arrangements and the nature of this relationship is displayed in Table 8.

Table 8: Relationship Between Age of Patients and their Opinion about Seating Arrangements

age	Mean	N	Std. Deviation
>30	2.6154	13	.65044
30-50	2.9492	59	.89873
<50	2.5526	38	.95003
Total	2.7727	110	.90523

Table 8 suggests that the middle aged patients have an average level of satisfaction regarding seating arrangements offered by the hospital while the younger and old aged patients have a critical opinion about the seating facilities provided by the hospital.

5.8 Relationship Between Patients' Occupation and Their Opinion About Hospital Services

Relationship between patients' occupation and their opinion about hospital services has been explored using ANOVA and the results have been displayed in Table 9.

Table 9: Relationship Between Patients' Occupation and Their Opinion About Services

Service	Sig.	Service	Sig.
Seating arrangement	0.138	Interpretation of investigation report by doctor	0.511
Cleanliness	0.374	Nature of medicines prescribed	0.465
Timings	0.19	Time required for consulting doctor	0.707
Services of the nursing staff	0.653	Time taken for investigation	0.945
Availability of doctors	0.303	Time spent in pharmacy	0.616
Communication by doctor	0.026	Waiting time	0.72
Explanation of disease	0.806	Time took by reception staff to attend you	0.855
Efficiency of doctor	0.451	Cost of consultation	0.387
Prompt conduct of investigations	0.562	Cost of investigation	0.196
No of investigations conducted	0.84	Cost of medicines	0.129

Table 9 suggests that there is no significant relationship between occupation of the patients and their opinion about different services provided by the hospital barring communication by doctorsand the nature of this relationship is displayed in Table 10.

Table 10: Relationship Between Occupation of Patients and their Opinion about Communication of Doctors

Occupation	Mean
government employee	4.1875
private employee	3.9375
Business	3.6800
Students	4.4000
housewife	4.2500
pensioner	3.7714
Total	3.9273

Table 10 suggests that students, housewives, government and private employees have greater satisfaction regarding quality of communication of doctors of the hospital while pensioners and businessmen have expressed lesser satisfaction over the issue.

5.9 Relationship Between Patients' Salary and their Opinion About Hospital Services

Relationship between patients' salary and their opinion about hospital Services has been explored using ANOVA and the results have been portrayed in Table 11.

Table 11: Relationship Between Patients' Salary and their Opinion About Hospital Services

Service	Sig.	Service	Sig.

Seating arrangement	0.217	Interpretation of investigation report by doctor	0.882
Cleanliness	0.85	Nature of medicines prescribed	0.275
Timings	0.85	Time required for consulting doctor	0.932
Services of the nursing staff	0.934	Time taken for investigation	0.383
Availability of doctors	0.974	Time spent in pharmacy	0.248
Communication by doctor	0.239	Waiting time	0.881
Explanation of disease	0.196	Time took by reception staff to attend you	0.18
Efficiency of doctor	0.562	Cost of consultation	0.276
Prompt conduct of investigations	0.507	Cost of investigation	0.979
No. of investigations conducted	0.069	Cost of medicines	0.41

Table 11 suggests that there is no relationship between income of the patients and their opinion about all the services offered by the hospital.

5.10 Determinants of Patients Satisfaction Towards Hospital Services

The statements used to gauge the opinion of patients about the services of the hospital have been grouped under four factors of Ambiance, Quality of treatment, time factor and cost factor and the influence of these factors on the overall satisfaction of the patients towards the hospital has been assessed using Regression and the results have been portrayed in Table 12.

Table 12: Determinants of Patients Satisfaction Towards Hospital Services

R^2	Factor	B	Std. Error	T	P
0.201	Constant	2.301	1.011	2.276	0.025
	ambiance	0.032	0.107	0.301	0.764
	Qualityoftreatment	0.346	0.224	1.547	0.125
	Time factor	0.215	0.119	1.814	0.073
	Cost factor	-0.029	0.064	-0.454	0.651

Table 12 suggests that 20.1% of variance of the dependent variable of patients satisfaction is explained by the four independent variables. However, of the four independent variables, only time factor exerts significant impact on patients' overall satisfaction about the services of the hospital at 10% level of significance.

5.11 Grouping of Patients Based on their Opinion about Services Provided by the Hospital

The patients have been grouped into three clusters using Cluster Analysis based on their opinion about the services offered by the hospital and the results have been portrayed in Table 13.

Table 13: Grouping of Patients

Factor	1	2	3	F	P
ambiance	3.51	2.86	3.15	24.013	0.000
Quality of treatment	3.92	3.84	3.89	6.121	0.033
Time Factor	3.11	3.61	3.27	16.920	0.000
Cost factor	2.92	3.06	4.55	70.017	0.000
No. of Cases	37	38	35		

Table 13 depicts the formation of three distinct clusters of patients based on their opinion about ambiance, quality of treatment, cost and time factor of the hospital. All the four factors contribute significantly to the clusterisation process as the significance values of all of them fall short of 0.05 while cost factor makes the largest contribution to the clusterisation process as the F value in respect of the factor is the highest. Based on the mean values in respect of the four factors for the clusters, the three clusters may be designated as "Treatment Quality Appreciators", "Promptness Appreciators" and "Cost Appreciators", each engulfing 37, 38 and 35 patients respectively.

5.12 Demographic Characteristics of the Clusters

Demographic characteristics of the clusters formed based on patients opinion about services offered by the hospital has been explored using Correspondence Analysis and the results have been portrayed in the following figures.
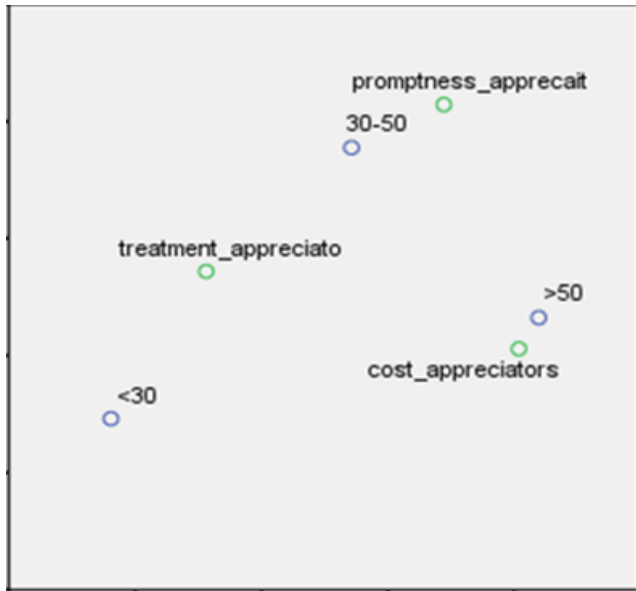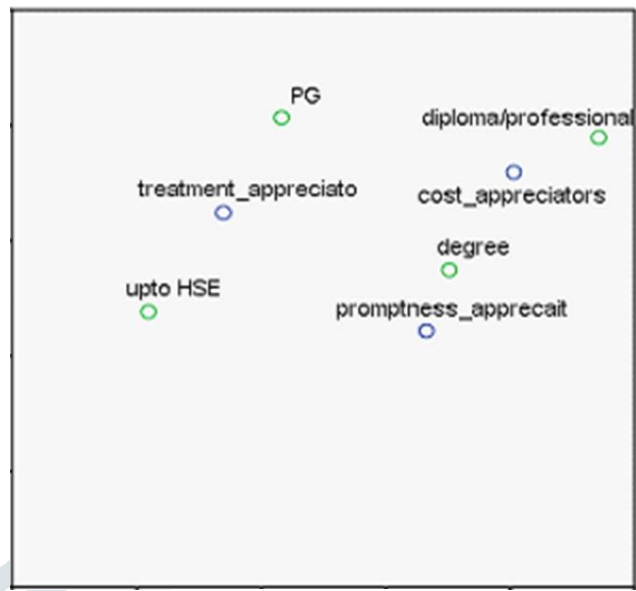
Fig 1: Age

Fig 2: Education
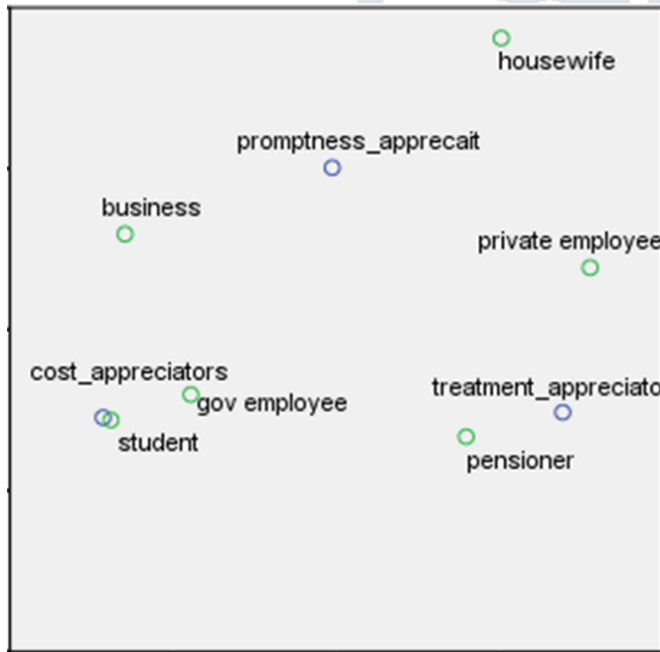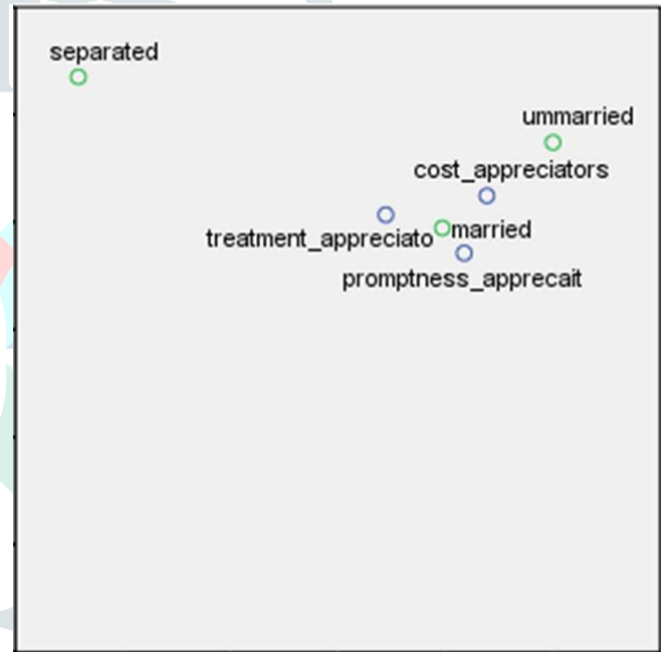

Fig 3: Occupation

Fig 4: Marital Status

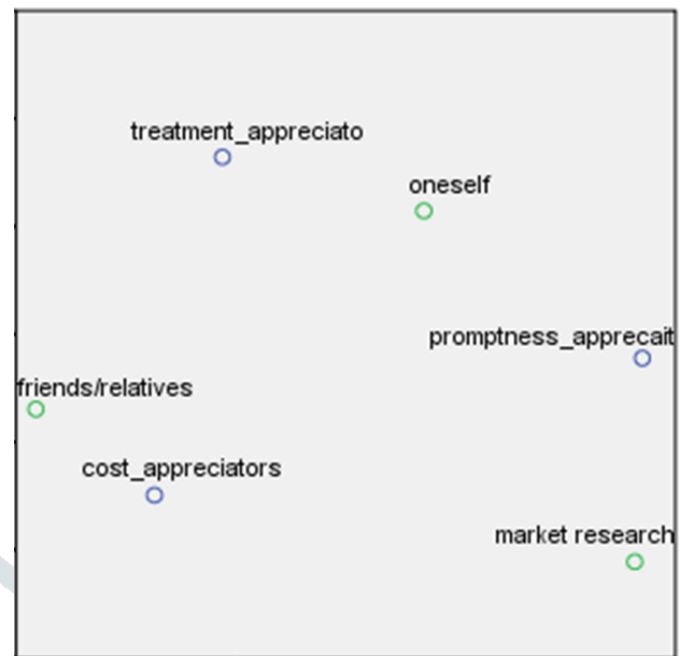Fig 5: Factors Considered   Fig 6: Decision Taken

It can be observed from the above figures that patients considering goodwill of hospital and quality of doctors for choosing a hospital for their medical needs, married patients and those aged 30-50years are associated with Promptness Appreciators while those patients who consult their friends/relatives for choosing a hospital for making medical consultations, unmarried patients, government employees, students, diploma-holders, graduates and those aged more than 50 years constitute cost appreciator group and Pensionersconstitute the Treatment Quality Appreciators group.

VI.   INFERENCES FROM THE STUDY

The study has revealed that most patients choose a hospital for making their medical consultations based on their self belief and trust and opinion of peers, stressing upon the importance of word of mouth for the popularity of any medical institution. Services of the hospital and quality of doctors play a significant role in patients deciding about hospital to make their consultations while proximity of the hospital to home has not been considered important by the patients to make their consultations suggesting that people are ready to travel large distance for getting good service and quality medical consultants.

The study has revealed good results for the Puduvai Life Line Hospital as barring a solitary patient, all the other patients have rated the hospital as good or very good. This good rating of the hospital by the patients is due to satisfactory diagnosis procedure consisting of interpretation of investigation report by the doctors of the hospital, quality of medicines prescribed, proper explanation of disease by the doctors, prompt conduct of investigation, good Communication by doctors, efficiency of doctors, minimum cost of consultation, minimum Time required for consulting doctors, timely Availability of doctors,minimumcost of medicines, suitable Number of investigations conducted, minimum Cost of investigation and suitable timing.

However, there is always scope for improvement everywhere and Puduvai Life Line Hospital is no exception. The hospital needs to concentrate on improving seating facilities by providing more chairs for patients waiting for consulting doctors. Similarly, time taken by reception staff to attend patients by sending their respective files to doctors need to be speeded up and this can be done by effective arrangement of files of patients so that searching time is bare minimum.

Patients have rated cleanliness in the hospital as below average, which is not a good sign for any hospital. Cleaning staff have to be engaged in good number and they have to clean the hospital premises constantly. Similarly, services of nursing staff needs to be improved with the employment of more caring and pleasant nurses. Time spent at pharmacy can be minimised by having more staff to attend patients waiting for purchasing medicines in the pharmacy.

Time factor exerts significant impact on patients' overall satisfaction about the services provided by the hospital, suggesting the importance to be attached to minimising waiting time for patients at all locations including consultancy halls, pharmacy and reception.

VII.   CONCLUSION

Consumer satisfaction is the core of marketing and this applies to health care industry also. Unless Life Line Hospital is able to satisfy the patients visiting it for consultancy, its very survival will be a question mark as the region is full of hospitals, both public and private sector. Hence, the hospital should concentrate on all small and big things which will have even a slight impact on satisfaction of patients which alone can retain and expand customer base for the hospital.

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