

## **Factors Affecting the In-Patient Satisfaction in a Universal Healthcare System- Sri Lanka.**

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### **Introduction**

The Sri Lankan healthcare industry has become enormously competitive in recent times. Greater efforts are taken to reduce their costs on one hand and on the other hand serious measures are taken to improve the performance. It is clear that all these aspects are driven by the service quality within the hospitals. Sri Lanka has a twofold system comprising the primary healthcare provider to be the Ministry of Health and Nutrition (MOH). The decentralization of the provision of the primary, secondary and tertiary services could be seen as Public general hospitals, Provincial base hospitals, District hospitals and Peripheral units. The private healthcare sector has boomed up rapidly due to the high demand for the private medical healthcare since the past few years (Institute of Policy Studies, 2012). In this research we examine those areas, in terms of their impact on patient satisfaction in the hospital industry. As noted above, the “service quality” is represented in terms and means of the constructs of quality context and quality out comes. Benson et al. (1991) and Saraph et al. (1989) introduces the quality context (QC) that describes the environment related to the practices of quality within the organizations. While Quality outcomes (QO) comprises of specific clinical and patient satisfaction outcomes of the hospital.

### **Research Problem**

Patient satisfaction is analyzed in order to give the patients the optimal care and service that they expect. Currently, a lot of organizations have set importance to aspects such as developing competent staff, promoting information analysis, automation and investment in advanced technology, improvement in interdepartmental communications and thus try out the level best to maintain a healthy service system since they affect the satisfaction of patients.

Healthcare industry in Sri Lanka has got to be sophisticated since the local healthcare consumer is concerned about the doctor who treats them rather than what hospital they get treated from. The entire decision making process is thus adjusted in such a way. Therefore the bargaining power of the hospitals are extremely low against doctors.

It is significant that major key players have clustered themselves around large hospitals in both state and private sectors. Taking private hospitals in to consideration, they are highly concentrated, and oligopolistic in nature. The interaction is decided on the price, the type and the level of service and has become the competing point. Noting that, increase in supply is limited due to shortages of Human Resources and the degree of expansion that is required.

The accurate role of healthcare providers remains as a subject of considerable controversy (Sauerborn, 2013). However there is barely any evidence on the care received by patients in a free universal healthcare system (Rannan-Eliya et al, 2014). As per Eggleston et al. 2010 the studies that have been done is limited to measures of structural quality. To address this gap in evidence and to identify the role of hospitals in a free universal healthcare system this research is being carried out successfully.

### **Research Objectives**

The objective of this study is to gather empirical evidence and support with adequate information to identify the association between factors that affect the patient satisfaction and the degree of patient satisfaction in the large scale hospitals of the western province in Sri Lanka.

It is also expected to investigate, analyze and identify the factors that are relevant and applies to any hospital, which are as follows:

- To identify the determinants of patient satisfaction in the private and public hospitals.
- Perform an association analysis to determine the most significant indicators of the patient satisfaction in private and public hospitals.
- To identify the areas that needs improvement in order to increase the patient satisfaction

**Research Design and Approach**

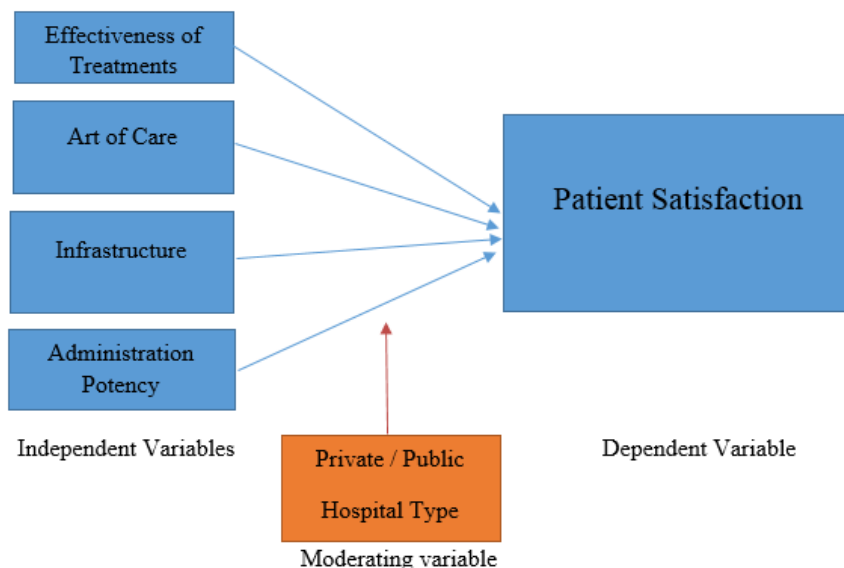
The current study is designed to focus on the patients’ satisfaction and perception of the service quality offered in hospitals. Quantitative researching will be used to find out how many patients hold a particular view, think or act in a particular way. Furthermore, researcher has used a deductive approach where the hypotheses were initially developed using the existing theories of patient satisfaction and then the research strategy was designed to test the set hypotheses. For one of the objectives, qualitative research will be used to a where appropriate. To explore and to understand the patients’ views and beliefs in a greater depth.

Sample population was considered to be the in-patients (currently admitted or who has been admitted within past 6 months of the study- Jan 01st 2016 to August 31st 2016) of Private hospitals in the Colombo District.

Convenient sampling was used due to confidentiality and pure volunteerism. Researcher has taken 20% of the sample size from the patients who are currently admitted to the hospital and 80% from the patients who were admitted and discharged within the past 6 months of the. This was due to the researcher’s assumption that the in-patients will not be revealing the actual perceptions during their stay of the hospital, and to avoid patients being biased (This was noted when the pilot study was done). This assumption was also proven in the study done in Jordan by Zamil et al, 2012. This research is based on the Colombo district which has a total population of 2,375,000 (Department of Census and Statistics, 2015). Sample size was determined to be 384 as per Krejcie and Morgan (Krejcie, V and Morgan, W., 1970).

Through critical analysis of the literature, four important independent variables which are considered to be significant in determining the patient satisfaction has been identified. These variables are given below.

**Figure 1: Conceptual Framework**



Source: Drawn by the researcher

**Validity and Reliability Testing- Main Survey**

**Table 1: Reliability test results-**

Variable	Cronbach’s alpha
Effectiveness of Treatments	0.935
Art of Care	0.870
Infrastructure	0.915
Administration Potency	0.930
Patient Satisfaction	0.895

Source: Survey Data

**Table 2: Summary of key measure's in validity tests results**

Variables	KMO	p-value of Bartlett's Test of Sphericity	Average variance E (AVE)	Composite Reliability (CR)
Effectiveness of Treatments	0.811	0.000	0.801	0.952
Art of Care	0.856	0.000	0.581	0.898
Infrastructure	0.829	0.000	0.512	0.914
Administration Potency	0.813	0.000	0.762	0.948
Patient Satisfaction	0.779	0.000	0.558	0.928

Source: Survey Data

### Findings and Discussion

- Effectiveness of treatments (P value= 0.046), Art of care (P value= 0.034), and Infrastructure (P value= 0.000), has a significant association with Patient satisfaction since the P value = 0.000(<0.05) at 5% significant level. Hence, the null hypothesis is rejected at 5% significant level and the alternate is accepted. However, administration potency failed to demonstrate such. Private hospitals demonstrated better in Infrastructure and Art of care while Public led the Treatments efficiency and administration.

$$Y=2.472+ 0.200X1 + 0.171X2$$

Where Y= Patient Satisfaction X1= Art of care and X<sub>2</sub>= Effectiveness of Treatments

- When the dimensions were tested to be fitted to the best model, dimension of the infrastructure becomes insignificant.
- Income (P value = 0.000) and Hospital Type visited (P value = 0.063) had a significant association with the patient satisfaction since the P value (<0.05) at 5% significant level. Patient's age, gender, hospital type and the number of past visits didn't have a significant association with the overall satisfaction of the patients.
- All the cost indicators (Doctor's fees, Room charges, Investigation fees, Qualitative overall service for the price) had a significant association with the overall satisfaction (P value=0.000 that is P value (<0.05) at 5% significant level).
- In the association with the hospital type with each demographic variable and independent variables, the indicators, gender, age, reason of visit and cost have a significant association with the hospital type. The Pearson Chi Square is <0.05. Whereas rest of the indicators P value is >0.05.

### Summary and Conclusion

As per the analysis and the discussion it was supported that the private hospitals are making better efforts to influence the patient satisfaction since they have to depend on the customers in order to meet the financial constraints and get the estimated profitability, which is not in public hospitals that are run through government patronage. Private hospitals have ended up in giving a good personal attention and satisfying the criteria of best "art of care" provider. However, they should carefully design more patient oriented strategies to enhance the reliability since the study proves that the patients trust public hospitals on the "effectiveness of treatments".

All in all, private hospitals were marginally higher in generating the overall satisfaction when compared to public hospitals within the chosen variables. Public health system is proved be good in administration and reliability however services towards the patients are inadequate. It was mainly identified that lack of "physical reach" forced the patients to use more expensive private facilities. The public hospitals should design better strategies to enhance the staff care to patients and make a better environment therefore giving the patients the highest "healthcare access" for the quickest recovery. The inability of provision of such an access is due to rapid growth of population, overburdened hospitals government funding, low government interest in development of new healthcare systems and rapidly developing private hospitals.

### Future Research

- The main limitation of this study is that it was conducted in the Colombo District only. Though the results concur with studies conducted in the other countries. Therefore there generalizability is limited, where the participants represented a particular segment of the society. - **Future researches should consider taking**

**samples from different districts of the country to ensure that the findings are relevant. It is not very accurate to be applied to the Sri Lankan healthcare industry since other cities were not covered.**

- Another limitation was that the researcher was only permitted to interview and distribute the questionnaire to a limited number of hospitals. Reaching out to more hospitals and patients through the questionnaire should have provided more insights in to the problem.
- The opinions of the service providers and the policy makers were not taken in to consideration in analyzing the patient expectation and satisfaction gap. **-Therefore in future studies such opinions should be sought in order draw better benefits from the study.**
- The research was based on the Likert scale and thus the score was calculated which limited access to the qualitative insights. **Therefore future research can adopt complementary research methods such as observation of naturalistic data and analysis of qualitative interview data and usage of qualitative questions in the questionnaires which would lead the researcher to get more information about the physiological, individual, contextual and situational factors.**
- The cultural impact was not taken into consideration. The needs, desires and the priorities are not homogenous. Different cultures will influence to have varied expectations and emotional reactions. (Furrer et al., 2000). **“Cultural impact” should be taken in to consideration in the future research.**
- **Future research could include a comparative study of satisfaction including the foreign medication since currently it’s becoming more of a practice and one of the main competitor to the Sri Lankan Healthcare industry.**

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