A Correlation Study between Patient Satisfaction and Patient Loyalty at a Tertiary Care Hospital in Kerala

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Abstract: _Background & Objectives_: *Patient satisfaction has a considerable impact on patient loyalty to healthcare services at the hospital. In the competitive health care market, it is important to gain patients' satisfactions, which in turn increase their return and loyalty. Therefore, this study evaluated the effect of patients' satisfaction with service quality and their loyalty.* _Methods_: *A cross sectional descriptive study among 125 in - patients was done using an expert validated questionnaire.* _Results / Discussion_: *The In - patient satisfaction was 4.14 which means it was good and the patients were very loyal to the hospital with a score of 3.99. A very strong positive correlation of value 0.523 was found between patient satisfaction and loyalty in the tertiary care hospital.* _Conclusion_: *Patient loyalty is a strategic service goal of private hospitals in order to retain and/or expand the market. Patient satisfaction is the effective way to achieve patient loyalty. If private - sector administrators and health - care providers understand which aspects of service quality are most important to their patients and have mechanisms to prioritize and ensure that these are met, patient satisfaction and willingness to use the facility again will be improved.*

Keywords: Patient satisfaction, loyalty, tertiary care hospital, correlation

1. Introduction

The health care sector is also a rapidly growing dynamic industry. It is a competitive industry and hence establishing strong relationships with patients can result in their satisfaction, which may result in patient return to the institution, creating the concept of loyalty. Attracting new customers is more costly than retaining existing customers for the institution. Better service quality at an affordable cost will not only keep existing customers but also attract new customers and helps in sustaining the profitability of the organization. Therefore, identifying loyal customers and their needs will help managers in proper resource allocation and right managerial and financial decisions to improve the quality of service.

A high level of service quality will certainly result in user satisfaction. Good quality service will eventually provide several benefits, including the establishment of a harmonious relationship between providers of goods and services and patients, which will provide a good foundation for the creation of profitable customer loyalty for the service providers. Patient satisfaction and service quality are inextricably linked. Customers were encouraged to form strong bonds with the hospital on account of its high - quality service delivery. In the long run, such bonding enables hospitals to carefully understand the patient's expectations and needs. As a result, the hospital can improve patient satisfaction in a way that maximizes pleasant experiences while minimizing or eliminating unpleasant ones.

2. Literature Survey

Gordon Abekah - Nkrumah et al (2020) had done a study on "Customer relationship management and patient satisfaction and loyalty in selected hospitals in Ghana". The study used a two - stage sampling process and structured questionnaires to collect data from 788 patients from three health facilities (public, quasi - public and private) in Greater Accra, Ghana. The data collected was analyzed using descriptive statistics and regression via the partial least squares - based structural equation model. The results suggested that CRM is significantly positively correlated with patient satisfaction and patient loyalty, with patient satisfaction also significantly correlated with patient loyalty. Additionally, the results suggested that the introduction of education, health facility ownership, health insurance status and gender, neither impact significantly on the relationship between CRM and patient satisfaction/patient loyalty nor influenced patient satisfaction and patient loyalty directly.[2]

Mina Rostami, et al, (2019) conducted a study on "The effect of patient satisfaction with academic hospitals on their loyalty". A cross - sectional descriptive and analytical study was carried out in academic hospitals. A sample of 260 patients admitted to these hospitals was recruited. The data gathering tool was an expert - validated questionnaire which its reliability was confirmed by Cronbach's alpha. Data were analyzed using descriptive statistics, correlation coefficient, and multivariate regression analysis in SPSS20. Results of the study was, the mean score of service quality was calculated 74.23 out of 100. Among the quality dimensions, "physician visit" had the highest score with 84.01 ± 20, and the "waiting time" dimension had the lowest score with the mean score of 62.45 ± 27.53. The mean score of patients' loyalty was 67.88 ± 29.79. Satisfaction with the six dimensions of service quality: "cost of services, " "hospital environment, " "delivered services, " "access to physicians and health care institutions, " "provision of information to

patients, " and "acquaintance with hospitals" were identified as the most influencing factors on loyalty.[1]

Tianur et al (2019) conducted a study on "Patient Satisfaction Model and Patient Loyalty: Analysis of Service Quality and Facility (Case Study at Rawamangun Special Surgery Hospital)", the aims of this study is to examine and analyze the effect of service quality and facilities to patient satisfaction and patient loyalty in the health industry. The research data is primary data obtained from the processing of questionnaire data which filled out by consumers who have been treated at Rawamangun Special Surgery Hospital. The number of samples is 150 respondents and use analysis technique SEM in this study with using AMOS 24 software as data processor. The results of this study showed that service quality has a positive and significant effect to patient satisfaction and patient loyalty. But the facility has no significant effect on patient loyalty at Rawamangun Special Surgery Hospital.[6]

Adhi Mahendrayana et al (2018) conducted a study on "The Effect of Service Quality on Patient Loyalty Mediated by Patient Satisfaction in Bali Siloam Hospital". This study aimed at determining the effect of Service Quality on Patient Loyalty with Patient Satisfaction Mediation at Bali Siloam Hospital. The research method used was quantitative descriptive. Data analysis techniques used was multivariate statistical techniques of Partial Least Squares (PLS) method. The sample of this research was inpatient at Bali Siloam Hospital consisting of 100 respondents. The results of the study showed that Service Quality has a positive and significant effect on Patient Satisfaction with a significance value of 0.29. Service Quality positively and significantly influencing to Patient Loyalty with significance value equal to 0.39. Patient Satisfaction has positive and significant effect on Patient Loyalty with significance value of 0.56. Patient Satisfaction has a positive and significant influence in mediating the influence of Service Quality on Patient Loyalty with significance value of 0.469. Bali Siloam Hospital is advised to provide better supporting facilities, to improve the empathy of nurses while providing services to inpatients, and to provide certainty of information provided services, to create patient satisfaction, which would ultimately impact on increasing patient loyalty.[3]

Taqdees Fatima et al (2018) conducted a study on "Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems", A total 611 patients (both indoor and outdoor) participated in a questionnaire survey from the six private hospitals of capital city, Islamabad, Pakistan. Data were analysed through descriptive statistics, common method variance, reliability, correlation and regression in order to investigate customer perceived service quality and how the quality of services stimulates loyalty intentions towards private service suppliers. Findings depict that private healthcare service providers are attempting to deliver well improved healthcare services to their customers. Results confirmed that better quality of healthcare services inclines to build satisfaction and loyalty among patients. The healthcare service quality aspects (i.e. physical environment, customer - friendly environment, responsiveness, communication, privacy and safety) are positively related with patient loyalty which is mediated through patient satisfaction.[5]

Selim Ahmed et al (2017) conducted a study on "Service quality, patient satisfaction and loyalty in the Bangladesh healthcare sector". The authors distributed 450 self - administered questionnaires to hospital patients resulting in 204 useful responses (45.3 per cent response rate). Data were analysed based on reliability analysis, exploratory factor analysis, independent samples t - tests, ANOVA and discriminant analysis using SPSS version 23. Findings indicate that single patients perceive tangibles, reliability, empathy and loyalty higher compared to married patients. Young patients (>20 years) have a higher tangibles, empathy and loyalty scores compared to other age groups. The authors observed that private hospital patients perceive healthcare service quality performance higher compared to patients in public hospitals.[4]

Problem definition
Patient satisfaction has a significant impact on patient loyalty to healthcare services at the hospital. Administrative behavior, physicians' services and healthcare technicality have a direct and positive relationship with loyalty intention.

Method & approach
Broadly it was a cross sectional descriptive study as it was describing the satisfaction and loyalty among in - patients of a selected tertiary care hospital. It was a questionnaire - based study and a sample of 125 patients admitted to this hospital will be recruited. The data gathering tool was an expert-validated questionnaire which its reliability was confirmed by Cronbach's alpha.

3. Result/ Discussions

The analysis of data was done using SPSS 2.0 software. Descriptive statistics and correlation coefficient were used and analyzed data was presented in the form of tables and graphs.

The average score of patient satisfaction was 4.14 which indicate that the patients were very satisfied about the various health care aspects of hospital. The average score of patient loyalty was 3.99 which indicates that the patients were very loyal. (Table 1) The spearman correlation coefficient was 0.523 and thus shows a very strong positive correlation of patient satisfaction and loyalty. (Table 2)

Figure 1: Average Value of patient satisfaction and loyalty

Variable	Score	Average Value	Remark
Patient satisfaction	14520	4.14	Very satisfied
Patient loyalty	4492	3.99	Very loyal

Spearman Correlation Coefficient

$$P = 1 - \frac{6 \sum d_i{}^2}{n(n^2 - 1)}$$

d=20.61
d²=42.6173
n=125
n²=15625

$$P = 1 - \frac{6 \sum (20.61)^2}{125(15625 - 1)}$$

Spearman Correlation in SPSS

Correlations			Mean satisfaction	Mean loyalty
Spearman's rho	mean satisfaction	Correlation Coefficient	1.000	.530
		N	125	125
	mean loyalty	Correlation Coefficient	.530	1.000
		N	125	125

Table 2. *Correlation is significant at the 0.01 level (2 - tailed).

P = 0.523

The Spearman correlation between In - patient satisfaction and patient shows a very strong positive correlation.

4. Conclusion

Patient loyalty is a strategic service goal of private hospitals in order to retain and/or expand the market. The present study results proved that patient loyalty can be achieved through patient satisfaction. If private - sector administrators and health - care providers understand which aspects of service quality are most important to their patients and have mechanisms to prioritize and ensure that these are met, patient satisfaction and willingness to use the facility again will be improved.

5. Future Scope

1) Study may be done at all hospitals on regular intervals for addressing patient's concerns without a gap in health care delivery system and thereby increasing patient's trust and return to the hospital

2) Special care and concern may be provided to new patients as they will be the loyal customers in the near future.

3) Addition of Questions about patient expectations both in in - patient and out - patient feedback forms as it will assist management in understanding patient needs as well as creating a positive hospital image.

4) A decrease in satisfaction with admissions, discharge, phone booking and other processes were noted in the study time. More attention should be given to these keen areas.

5) Interpersonal communication had a significant impact on the patient's willingness to return to the hospital. The hospital manager should focus more on building and facility improvements. However, in terms of quality improvement, the interpersonal component of service quality should not be overlooked.

6) For improved patient relations, home care schedules and drug delivery to telemedicine patients (follow - up consultation of in - patients via video call) can be implemented.

7) In order to increase the patient's loyalty, improving the quality of services along with providing cost-effective service, improving the health care environment, and providing better and more useful information to patients during treatment process and hospitalization are recommended.

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