

Impact of Hospital Services on Patient Satisfaction: With Reference to a Government Hospital in Sri Lanka

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ABSTRACT

In order to execute continual improvements in hospitals, it is essential to measure the quality of healthcare. Due to the complexity of how services are delivered and how a hospital sets up its various units and work processes, it is a challenging undertaking. Measuring patient satisfaction can help identify areas of service delivery that need improvement. The purpose of this study is to examine the impact of hospital services on patients' satisfaction. A total of 155 responses were collected through a self-administered questionnaire based on the convenience sampling approach. A government hospital in Sri Lanka was chosen to conduct the research. The questionnaire was designed to study the impact of patient's perspective on hospital management, tangibles, working environment, technology and hospitality towards the patient's satisfaction. A conceptual model was derived, and the results were analyzed using Multiple Regression Analysis. Findings revealed that there is a significant impact on aforesaid independent variables on patients' satisfaction. Based on above findings, the academic and practical implications have been discussed.

Keywords: Patient's satisfaction, tangibles, hospitality, technology, working environment

INTRODUCTION

As mentioned by Helliwell (2003) good health causes to human happiness, well-being and make an important contribution to the economic process of an individual or a country as a whole. Health service is important to promote and maintain health, preventing disease, reducing unnecessary disabilities of the people in a country. There is a good connection between the economy and the health of citizens in a country as it directly affects economic growth by conducting effective activities in the work force. One kind of public service that the general public frequently uses is hospital health care. The community will always want great services at all times, even if these needs are frequently not met (Mulya et al., 2023). Owing to the fact that Low-income nations have not used patient satisfaction indicators as much as developed nations have, Adhikari et al. (2021) carried out a study pertaining to socio-demographic factors affecting patients' satisfaction in a tertiary public hospital in Nepal.

In Sri Lankan context, health care services in the country are offered by both private and the public sectors. Public sector health care services are offered free of charge to patients and the present study aims to

examine the factors affecting patients' satisfaction in state owned hospitals.

LITERATURE REVIEW

Patients' satisfaction studies have been carried out in extant literature pertaining to Sri Lankan context by taking various private and public hospitals into consideration. Gamini and Ranasinghe (2017) studied patient satisfaction in terms of medical and well as non-medical services at a maternity hospital in Sri Lanka. Accordingly, services offered by medical officers, nurses and technical staff and non-medical services in terms of respect and client orientation services were studied and found to have significant impact on patients' satisfaction.

In a study conducted in Sri Lankan National Eye Hospital, Warapitiya et al. (2015) revealed that a vast majority of respondents were satisfied with hospital services, however, waiting time and overcrowding is an issue that which needs to be addressed. Findings of a study conducted in a hospital situated in down-south area of the country reveal that overall satisfaction score remain at a low level and waiting time was highlighted as an issue (Sanjeewa & Senevirathne, 2017).

Hospital Services and Patient Satisfaction

The healthcare sector is an ever-evolving and dynamic environment. When it comes to healthcare services, the combined challenge of having good healthcare management and knowledge cannot be disregarded. Further, patients are entitled to high-quality medical treatment. The needs and experience of patients should be the focus of any efforts to raise the standard of healthcare (Chana et al., 2021). Patients' service expectations are influenced by a number of factors. According to Sreenivas & Babu (2012), generalities in intensive care unit planning, the social system, doctor-patient relationships, physician responsibility and behavior, nurse behavior, and patient role and opinions directly affected on patient satisfaction. According to Leon (1954), people constantly evaluate themselves to determine where they stand in relation to a variety of attributes. Accordingly, this study focuses on three indicators of patients' satisfaction namely, doctor patient relationship, financial benefits and strength of medical staff.

The doctor-patient relationship is crucial because patients frequently choose their general opinion of healthcare services and their prospective outcomes. Patients must establish a positive and cordial rapport with the physician by employing greater levels of communication if they are to evaluate the healthcare services provided by the doctor (Auerbach et al., 2022). A positive doctor-patient relationship is crucial to ensuring that the patient follows the advice they have received, which ultimately improves treatment effectiveness and lowers transaction costs. Accordingly, better patient activation resulted from participatory decision making, which in turn increase medication adherence and improved health status (Parchman et al., 2010). The patient's faith in and willingness to use such medical facilities in the future may increase as a result of this contact. The hospital's reputation may improve as a result of this continued use (Hussain et al., 2019).

Perspective towards hospital management System

In hospital context, interaction between patient and doctor, patient and medical staff is very important for treatments. Durairaj (2015) mentioned that successful interaction between doctor patients is based on mutual respect of their different capabilities such as knowledge and communication skills. Further, doctors have the ability to influence the result of a medical consultation through excellent physician-patient contact. Patient satisfaction is strongly linked to effective physician-patient interaction and patient adherence to plan their activities and other physician directions as accordingly (Abioye et al., 2010).

Outpatient services have grown in importance in the health-care industry. The medical community emphasized that a physician's time is more valuable than a patient's time through hidebound mentality. As a result, the appointment system was created to reduce physicians' idle time while keeping patients' waiting times in mind. As a result, both parties' idle time must be addressed while building an appointment system, despite the fact that these two goals are mutually exclusive (Mardiah & Basri, 2013). Further, Camacho et al. (2006) has mentioned that the amount of time patients wait during an office or clinic visit is a common source of discontent with healthcare. Further, the patient's stress can be amplified by lack of information.

Moreover, information on diagnosis and treatment options are major determinants of patients' willingness to recommend a facility to a friend or relative if needed (Lis et al., 2009). Further, It is vital for patients to receive sufficient information at the Registration counter, as some of them may be utilizing the services for the first time (Mohd & Chakravarty, 2014).

The issues pertaining to availability of drugs in government hospitals has created significant complications, prompting patients to purchase them elsewhere (Sreenivas & Babu, 2012). At the same time Kamei et al. (2001) has mentioned that availability of pharmacy facilities with required drugs is directly affected for the patient satisfaction. Further maintaining inventories of prescribed medications is a pivotal factor of patient satisfaction and it will also be important for pharmacies to improve their medication capacities. Accordingly following hypothesis is formulated,

H1: Perspective towards hospital Management system has an impact on patient satisfaction.

Tangibles

Generally, in a hospital "tangibles" dimension plays a huge role to make the patient satisfaction with service provided by the hospital (Andaleeb, 2001). Physical evidence such as waiting room, Beds, pharmaceutical facilities reflecting the overall condition of a hospital and its facilities. Kamra et al. (2016) stated that physical facilities measure the patient's perception about the quality of service in the hospitals. Further this measure includes the cleanliness and maintenance of the facility, the availability of physical facility, such as resident rooms, technological capability, diagnosis test rooms, blood banks, ward beds ambulance services, and operation theaters.

Hospital beds in the hospital is major factor in measuring patient capacity and satisfaction level of the patients towards the hospital system. Kraska et al. (2017) has mentioned that number of beds/hospital size available in hospital have an impact on patient satisfaction and intensive care bed management strategy is important factor for the patient satisfaction. At the same time bed strength of the hospital consider as one of the parameters for hospital gradings (Rajapaksa et al., 2021).

Managers should focus their quality improvement efforts on areas of the neat appearance of the hygienic conditions at the hospital as it directly effect on patients' satisfaction (Umoke et al., 2020). Hussain et al. (2014) stated that one of the major reasons for low in-patient satisfaction in the public sector hospitals is poor hygienic conditions and poor maintenance. Not only that but also, most importantly patients seek good hygienic conditions in the hospital prior to enter in to the hospital environment (Hussain et al., 2014). Furthermore hygienic environment is a pivotal factor once selecting hospital for the treatment by the patient and based on that factor they select the place for getting treatments (Fatima et al., 2018).

Food and accommodation are having influence on patient's satisfaction. Even though, accommodation is an amenity which is not directly linked with the treatment process but, it is much importance to patient's satisfaction (Niakas et al., 2004). Schoenfelder et al. (2010) has stated that patient satisfaction based on the accommodation of respective hospitals. Not only that but also the hospital administration system is the best work on new innovative achievement to keep and improve the administrative system, waiting time, hospital

stay, hospital accommodation, access for medications and laboratory services which effect to bring patient satisfaction (Woldeyohanes et al., 2015). Second hypothesis of the study is as follows;

H2: Tangibles in the hospital have an impact on patients' satisfaction.

Working Environment

Patients expect a sense of order and discipline in the hospital environment prior to entering the hospital. Dugdale et al. (1999) stated that the time doctors spend in face-to-face contact with patients cause for gathering information and developing a relationship and easy administrative work. This relationship effect patient satisfaction directly in respective hospitals. As mentioned by Rogers et al. (2004) the administration of safe and effective treatment for hospitalized patients is complicated by high patient acuity levels, quick admission and discharge cycles, and shortage of medical staff such as doctors nurses and pharmacists who positively participate for treating process. Specially working hours of medical staff is having positive relationship with patient satisfaction (Rogers et al., 2004).

Healthcare organizations are looking for strategies to improve service delivery in order to meet patient needs in the current uncertain climate. In order to manage with unpredictability, healthcare organizations focus on flexible delivery of healthcare services, which leads to increased patient satisfaction (Kumar et al., 2018). Further authors mentioned that healthcare firms are increasingly challenged with improving service delivery and finding methods to provide patients with convenient services. Healthcare businesses employ flexibility, which is regarded as a competitive asset, to adjust to changing patient expectations. Following hypothesis is developed.

H3: Working environment has an impact on patients' satisfaction.

Technology

As mentioned by Tousignant et al. (2011) patient happiness is vital for maintaining motivation and treatment compliance, and healthcare professionals' satisfaction must be high for new procedures to become conventional in clinics, it appears to be a promising alternative to traditional face-to-face treatments. Further, rapid technological changes in the health-care industry, health-care organizations are paying more attention to patient happiness. As a result, many healthcare practitioners are looking for ways to improve their patients' perceptions of their performance (Zabada et al., 2001). However, the usage of information technology (IT) in healthcare sector including public hospitals has become more widespread. IT tools such as Electronic Medical Records (EMR) have been found to improve the efficiency of hospital services especially in terms of patient data management and It is important for healthcare to provide the public with a good quality of life (Ismail et al., 2011).

Automated drug distribution was effectively adopted in US government hospitals, demonstrating increased drug supply efficiency and improved accountability. If broadly adopted, the method might free pharmacists to focus on enhancing pharmaceutical treatment by increasing the efficacy and effectiveness of therapeutic activities while also reducing patient waiting times. Patients' satisfaction with the hospital drug distribution system in the United States has grown as a result of this new deployment (Martin et al., 2000). In addition to that, effective laboratory services that provide services in a timely manner are critical from both a medical and business standpoint, as well as in terms of patient satisfaction (Mindaye & Taye, 2012). As stated by Teresa & Bekele (2016), the most crucial basic lines for improving the quality of service offered are understanding the level of customer satisfaction and recognizing the issues that inhibit client pleasure. Professional organizations can play an active part in the introduction of information technology if they are able to integrate information technology into their operations (Van Der Lei et al., 1993). Accordingly, fourth hypothesis is as follows;

H4: Technology has an impact on patients’ satisfaction.

Hospitality

Hospitals can no longer afford to be only medically focused; as hospitals compete for higher patient satisfaction and loyalty, the emphasis in hospital design has switched to hospitality-type facilities, patient services, and family-centered care. Research is increasingly pointing to the importance of improving the physical environment to promote healing and influence consumer decisions and perceptions of service quality (Hunter-Jones et al., 2020).

Hospitality in hospitals is being looked at from different perspective, where hotel-like hospitality is offered in hospitals (Wu et al., 2013). Accordingly, the authors studied such hospitality elements encompassing luxury rooms with decorations, modern furniture, executive lounges, wellness centers, room service, food menus, dining facilities for families, cafeterias, entertainment features, free Wi-Fi facilities and enhanced customer service. Sheehan-Smith (2006) mentioned that such hotel-style amenities tend to have positive association with patients’ satisfaction. However, for a state-owned hospital with free healthcare service offered to general public, hospitality to that extent may not be practical. In this vein, Kelly et al. (2016) revealed that participants experienced hospitality in a variety of ways. In the presence of hospitality, individuals felt calm, comforting, and healing. It implies that caring for the patient is a crucial part of the healing process.

Rozenblum et al. (2013) stated that medical staff in the hospital is involved in almost every aspect of a patient’s care and health needs, quality health service remains an essential for both nurses and patients. At the same time, the ideas of regard for people (dignity in treatment) and respect for autonomy (participation in decision-making) and their possible relationship to patient satisfaction (Beach et al., 2005).

H5: Hospitality has an impact on patient satisfaction.

The conceptual framework of the study developed based on the literature review is depicted in Figure 1. Five independent variables were deployed for the study with patient satisfaction as the dependent variable.

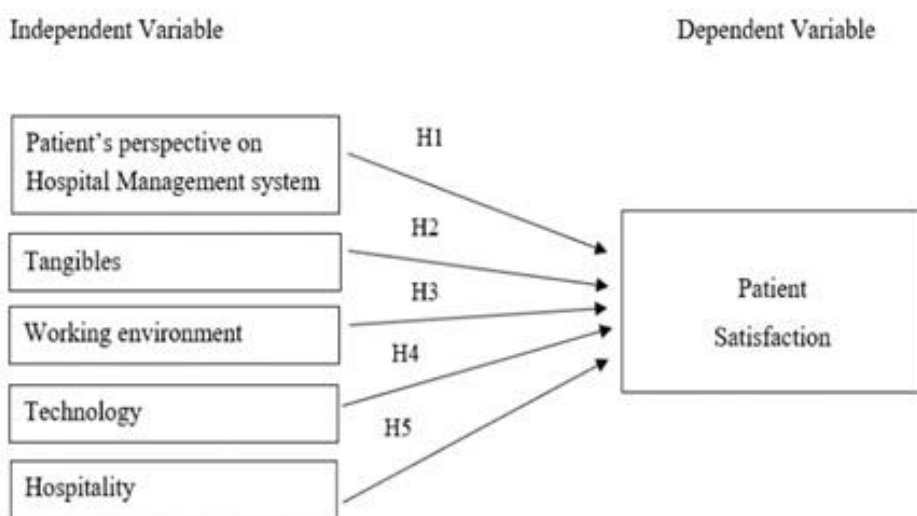


Figure 1: Conceptual Framework

Source: Authors

RESEARCH METODOLOGY

Research Design

The philosophy of the research is taken as positivism. Deductive approach is used as strategy of the study and data for the study was collected and analyzed using quantitative methodologies. The study was narrowed down to a government hospital in Sri Lanka. Sample was determined using convenience sampling technique. The unit of analysis is the patient.

165 questionnaires were distributed among patients, and 155 responses were returned, resulting in a response rate of 94%. Fifteen replies were found as outliers after being evaluated against the box plot diagrams. The final sample has 140 respondents after excluding the outliers. Before analyzing the entire data set, the researcher conducted a pilot study using 30 respondents and confirmed that the questionnaire is reliable to proceed.

RESULTS AND ANALYSIS

Reliability and Validity

Reliability test was carried out to ensure the internal consistency of the questionnaire. Accordingly, Cronbach's Alpha value of each variable was tested and were greater than 0.6, hence the reliability of the variables were satisfied indicating high level of internal consistency for the scale with the selected sample. Table 1 shows the Cronbach's Alpha values.

Table 2: Reliability Test

Variable	Cronbach's Alpha	Number of items
perspective on hospital management (PM)	0.667	07
Tangibles (TG)	0.718	04
Technology (TL)	0.750	05
Working Environment (WE)	0.711	04
Hospitality (HL)	0.751	05
Patient Satisfaction (PS)	0.723	05

Source: Authors

Furthermore, sampling adequacy should be above 0.5 to display that the data which was collected by the researcher is valid and appropriate (Kim and Mueller, 1978). Kaiser-Meyer-Olkin (KMO) test was carried out where the result was 0.672 thereby ensuring the sample adequacy. Further, multicollinearity was checked and confirmed that there is no multicollinearity.

After ensuring parametric assumptions, data were proceeded for correlation analysis and multiple regression analysis to test the hypothesis of the study.

Table 3: Correlation Analysis

Variable	Correlation
Patient Satisfaction and Customer perspective on hospital management	.914
Patient Satisfaction and working environment	.918
Patient Satisfaction and technology	.935
Patient Satisfaction and tangibles	.895
Patient Satisfaction and hospitality	.943

Source: Authors based on survey results

According to the correlation analysis, all independent variables employed for the study, in terms of patients' perspective on hospital management, working environment, Technology, tangibles and hospitality have positive and significant association with patient satisfaction. Further, the model significance of the study was established according to the results of ANOVA test.

Regression Analysis

The R squared and adjusted R squared were 0.948 and 0.946 respectively. Therefore, it indicates that 94.6% of the variance of patient satisfaction is explained by the independent variables. The regression model was significant at 5% (0.000) level. The regression results pertaining to the study are depicted in Table 4.

Table 4: Regression results

Model	Unstandardized coefficients		Standardized coefficient	t	Sig.
	B	Std. error	Beta		
(Constant)	.109	.044		2.512	.013
PM	.302	.041	.305	7.412	.000
TG	.120	.040	.133	2.976	.003
WE	.124	.047	.138	2.656	.006
TL	.135	.058	.152	2.325	.022
HL	.285	.063	.298	4.557	.000

Source: Authors based on survey results

All independent variables show significant positive impact on patient satisfaction. The relationships pertaining to all variables are significant at 5% significance level ($p < 0.05$). Accordingly, all H1, H2, H3, H4 and H5 are accepted.

DISCUSSION

Patient satisfaction in a selected Sri Lankan government hospital is investigated in the current study. The key objective of this study is to identify the leading factors of dissatisfaction of patients in government hospitals. The first objective of the study is to find out the relationship between the Hospital Management

and the patient satisfaction. According to the study of Rozenblum et al. (2013) hospital management has positive impact on patient's satisfaction. Further Durairaj (2015), Mardiah & Basri (2013), and Kamei et al. (2001) have mentioned as interaction, time consuming, information and drugs availability is having a positive relationship with patient satisfaction respectively which are the attributes of hospital management and the results of this research is compatible with previous studies results.

The second independent variable tangibles can be described as the fact of service which can be feel without buying or receiving that service and tangibles are the physical impression which provide by the service provider to attract customer towards the service. Bed strength, hygienic condition, accommodation and other facilities are the main attributes of tangibles. Kraska et al. (2017) has mentioned that number of beds available in hospital have an impact on patient satisfaction and intensive care bed management strategy is important factor for the patient satisfaction. Accordingly Hussain et al. (2014), Niakas et al. (2004) and Kamra et al. (2016) have emphasized the positive relationship between patient satisfaction and hygienic condition, bed strength and available facilities in the hospital respectively. The result generated by the study also in line with the previous studies.

Patients expect a sense of order and discipline in the hospital environment prior to enter to the hospital (Andaleeb, 2001). According to the survey of literature, consultation period of doctors, working days and time, patients' rights and flexibility of the hospital staff are the main attributes of working environment. As per the studies conducted by Dugdale et al. (1999), Rogers et al. (2004), Peele & Palmer (1980) and Kumar et al. (2018) have proven as there is a positive relationship with those attributes. According to this study, working environment is having a positive relationship with the patient satisfaction in the hospital.

As per the study done by Tousignant et al., (2011) there is a positive relationship with patient satisfaction and technology. According to the study of Ismail et al., (2011) result has generated as there is a positive relationship among data management system and the patient satisfaction.

As per the literature survey of the study kindness, respect, communication, food and water are the main attributes of hospitality. As per the study done by Hunter-Jones et al. (2020) there is a positive relationship between hospitality and patient satisfaction. According to the study done by Meng et al. (2018) output has received as having a positive relationship between patient satisfaction and kindness of the hospital staff. Rozenblum et al. (2013), Bramhall (2014) and Lemma et al. (2002) have conducted research to find the relationship between patient satisfaction and respect, communication, food and water respectively. It has proven as there is a positive relationship between patient satisfaction and aforesaid factors.

CONCLUSION

The research findings presented in this study contribute to the knowledge to identify leading factors for the satisfaction of patients in hospitals. The study employed patients' perspective on hospital management, technology, working environment, tangibles and hospitality as independent variables and attempt to examine the effect of them on patient satisfaction in the hospitals. The researcher presents some new suggestions for the professional and practitioners. If the availability of aforesaid factors it can provide equality health service to the patients in hospitals and same will heading to reduce the dissatisfaction of patients as well. However, it has to utilize considerable amount of provisions to provide all abovementioned factors to uplift the patient satisfaction. Specially in terms of technology, present study focused on drugs management systems, registration, patients' databases, and use of modern technology to manage waiting time. However financial constraints may act as a barrier to make sudden changes and such developments may take medium to long run. However, certain aspects studied in the present research require much less financial provisions such as hospitality and working environment which can used to make patients satisfy and that can uplift with available resources. Hence it should consider utilizing available resources effectively and efficiently to provide quality service to patients. Moreover, it is recommended to organize workshops

for hospital staff emphasizing service quality. Weerawansa and Samarasinghe (2017) stated that although public health system in Sri Lanka has shown to be reliable and well-administered, patient services are still lacking. The present study also found out that hospitality is a vital factor towards patients' satisfaction which may be further enhanced.

Considering this study, several limitations can be identified. Firstly, the study was narrowed down to a selected public hospital in Sri Lanka. Future studies may be conducted in other hospitals as well as in private hospitals. Data collection of the present study was limited to patients and future research may undertake viewpoints of various stakeholders. Future research may also embed qualitative data for more in-depth analysis.

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