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CRITICAL FACTORS OF PATIENT SATISFACTION IN PRIVATE HEALTHCARE SECTOR OF LAHORE

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ABSTRACT

This study attempts to explain the factors of satisfaction in the patient's perspective from the private healthcare sector of Lahore. The data was collected from in-patients of eight major hospitals in Lahore city of Pakistan. The study distributed 450 questionnaires among patients of different hospitals for data collection and received 322 fully filled questionnaires for data analysis. The study applied different statistical tools to analyze the data. The findings show that among all six variables, physical facility is the most influential predictor of patient satisfaction in the private healthcare sector of Lahore. The analysis further explored that all hypotheses of the study are proved to be true and significant.

Key Words: *Health care, Patient satisfaction, Public health*

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BACKGROUND OF THE STUDY

Patient satisfaction is the judgment and reaction of the patient before, during and after the stay at the healthcare center. Patients are the sole beneficiary of healthcare system; therefore, their satisfaction should be given full attention. The whole system of any healthcare center directly depends upon the satisfaction of patients who visit and stay at the healthcare center. Central challenge hospitals may face in developing countries is identifying the possible ways to make them more clients oriented (Xesfingi & Vozikis, 2016).

Healthcare industry is one of the most rapidly growing industries, and there are different factors responsible for this rapid growth in healthcare sector. For example, environmental changes, competitive pressures, alternate healthcare mechanisms, new roles and regulations imposed by governments to improve healthcare facilities, access of patients to information, cost structures and many others contributed in this regard. So many healthcare service providers realized that patient satisfaction is a key factor for long run success of a hospital. Hence patient satisfaction is considered to be the desired outcome for any hospital or healthcare service provider (Manary et al., 2013). Patient satisfaction is an important profitable competitive strategy, and different studies (You et al., 2013; Jenkinson et al., 2002) have shown that people are more concerned about those organizations which provide high standards of care and attempt to satisfy their customers in a better way. In their research studies, Hung et al. (2016) argued that hospitals with a better image of patient satisfaction grab better market share and survive in competition.

Similarly, patients of today are more informed and educated about healthcare services as compared to past. Due to their information and knowledge, they carefully chose a hospital after observing different healthcare standards according to their needs. So availability of information is a crucial factor due to which patients are much sensitive about the delivery of healthcare services and facilities. According to Panchapakesan, Sai and Rajendran, (2015), it is not the issue of whether patient is right or wrong, the issue is how a patient feels during his or her stay at a particular hospital. Healthcare providers failing this understanding that patient satisfaction is a crucial factor may invite trouble for their hospitals.

Patients' satisfaction is a key factor in patients' decision making while choosing a specific hospital. There are several general characteristics for patient satisfaction, such as demographic, socioeconomic and general health status. Besides these general characteristics, patient satisfaction is also decided by delivering healthcare services from a hospital, for example, experience of doctor and healthcare delivery environment (You et al., 2013). According to Hall (2014), continuity of care is also a crucial factor for patient satisfaction, and it requires a partner like relationship between healthcare service provider and patient. However, as the changes emerged in the healthcare sector, changes in coverage of health insurance etc, may cause a forced discontinuity in patients' satisfaction.

Similarly, the extent to which patients' are satisfied with a healthcare provider also depends on patient characteristics and why they are visiting certain hospitals. For example , in serious cases, patients may not wait even for one day to see their concerned doctor (Black, 2013). Previous research (Xesfingi & Vozikis, 2016; Batbaatar et al., 2017) also indicated continuity is important in building the patient's trust in some particular hospital or healthcare service provider. According to Dragovich et el. (2017), there is a strong interaction between continuity and satisfaction and this interaction is complex in nature that involve patients' characteristics and healthcare factors provided by a specific hospital. Patient satisfaction is associated with many factors. It may include the waiting time at healthcare center (Adamu & Oche, 2014), physical structure and cleanliness (Mehra, 2016) and responsiveness and assurance (Karekar, Tiwari & Agrawal, 2015). Furthermore, there are abundant factors that contribute to patient satisfaction at healthcare centers. It may include privacy, tangibility, staff courtesy, clinic environment, registration process and consultation time. The outpatient department (OPD) of any hospital is the shop window of any healthcare centers. Therefore, the patient's reaction at OPD reflects the overall satisfaction level of patient for that specific healthcare unit. Existing literature also advocates that drivers of patient satisfaction vary at public and private healthcare centers. Even there may be different factors associated with patient satisfaction in developed, developing and least developing countries. It is due to the factor of infrastructure provided by the government to the healthcare centers.

Healthcare Sector of Pakistan

Pakistan is the 6th largest state globally, but the budget allocated to health is 1.5% of the entire budget. Healthcare sector in Pakistan is running under Ministry of Health. There are two sectors public and private. Public sector provides basic health facilities at very low cost, whereas private sector is charged heavily (Nishtar et al., 2013). In Pakistan, there are 127,859 doctors and 12,804 health facilities for the treatment of over 200 million people. Public sector is serving with 968 hospitals,

In Pakistan, the infrastructure of health sector is moderate, which consists of Rural Dispensaries (RD), Basic Health Units (BHU), Rural Health Centers (RHCs) and the District hospitals. The wide network of healthcare facilities consists of 4755 Rural dispensaries (RD), 5349 Basic Health Units (BHUs), 572 Rural Health Centers (RHCs), 945 Tehsil and District headquarter hospitals (THQ, DHQ), 903 maternal child health centers (MCHs) and 290 TB Centers (Existing Infrastructure of Healthcare in Pakistan (Khan, 2019).

This research aims to determine the factors that affect patient satisfaction in the private healthcare sector of Pakistan. The present study contributes to existing literature in following ways. First, it provides guidelines to the management of heath department by determining the significant factors that determine patient satisfaction in hospitals.

Secondly, this study considers a wide range of factors contributing to better patient satisfaction in healthcare centers. It includes waiting time, physical facilities at healthcare centers, diagnostics services, staff behavior, cleanliness of hospitals and cost charges by hospitals.

LITERATURE REVIEW

Generally, the term patient, user and consumer are generally used synonymously in the existing literature, but there is a precise difference between these words in health executives, normal citizens and business man. Tsai, Orav and Jha (2015) defined a patient as a person facing some ailment and visiting the healthcare provider to seek some treatment. Hasan et al. (2013) explained that when patients gather the relevant information about the ailment and seeking health services, such patients may be labeled as consumers. The role of patient is increasing day by day in the healthcare process. This exponential shift in the role of patient in healthcare process leads towards the importance of patient satisfaction. There is wide range of literature on the subject of satisfaction of patient in healthcare sector. Javed & Liu (2018) recommended that patient satisfaction is directly linked with the quality of services in healthcare sector. Further, Hall (2014) explored patient satisfaction and suggested that it is all about the judgments and reactions of patients during the whole healthcare process i.e. before, during and after the healthcare provider's visit. Therefore patient satisfaction is linked with prior expectations and set of beliefs of patients.

Existing literature in patient satisfaction advocates a relationship between patient satisfaction and service provided before, during, and after healthcare provider visits (Kärnä, 2014). There may be a chance that patients are dissatisfied with some health services but satisfied with overall services provided by healthcare unit. Researchers are continuously struggling to determine the optimal mix of healthcare services which forces the patients to come back again for treatment of the diseases at same healthcare unit.

Patient satisfaction can depend on multiple factors. It may relate to individuals and location of hospitals. More precisely, it starts from the location of healthcare, parking facility, admission procedures, physical facilities such as stretcher, wheel chair, waiting area etc. It further includes the pharmacy, nursing services, behavior, cleanliness of staff in hospital and cost (Manary et al., 2013). As per Hundt et al. (2013), 10 main factors contribute towards patient satisfaction in healthcare sectors. It includes accessibility, resources, continuation in services, efficiency in services, finance, humaneness, information gathering and giving, overall environment and quality of services. Tasneem et al. (2010) conducted a comprehensive study on patient satisfaction and compared the finding of teaching hospitals with district headquarters (DHQ) in Lahore at Pakistan. They further investigated the level of patient satisfaction with treatment by staff at hospitals, the infrastructure of staff and overall awareness to patients about the services at hospitals.

Based upon 140 patients, they found that overall patient is more satisfied with DHQ as compare to the teaching hospitals.

The doctor-patient relationship is an important element for patient satisfaction. The regular meetings between a doctor and a patient positively impact patient satisfaction (McFarland et al., 2016; Fu et al., 2013; Farin et al., 2013). These regular meetings involve a high ego by the patient and require complex communication patterns and customer problems. The long relationship of doctor with the patient helps him see customer needs and evaluate him on his credence attributes (Blanch-Hartigan et al., 2013). This serves as an industry that builds a customer franchise through his satisfaction word of mouth recommendations (Ha & Longnecker, 2010).

Many studies help us understand more about patient evaluation (Andaleeb, 1998; Bennett et al., 2011; Alrubaiee & Alkaa'ida, 2011). These studies explored the importance of the service encounter in determining overall satisfaction. Andaleeb (1998) found, "Three out of the five factors leading to customer satisfaction with hospitals had to do with patient-staff interaction". Similarly, Verlinde et al. (2012) found, "three of five factors affecting service quality perception of hospitals were related to the interactions with doctors or other staff". For alleged quality of physicians, professional expertise, validation of patient beliefs, interactive communication, image, and antithetical performance are concerned with meeting with the patient.

The managerial staff associated with healthcare units has to keep in mind that the top quality of service, in delivering the healthcare goods, has a direct bearing on patient satisfaction. This act of maintaining high class quality, in delivering healthcare products, also gives birth to the concept of achieving market competitiveness in healthcare products. (Speroni et al., 2014). So it is very important and desirable for the managers, who are assigned the task of delivering quality services, to identify and have a vision of all those points, which are of great significance to maintain patient's satisfactory desire (Price et al., 2014). The scholars like Aliman and Mohamad (2013) also worked a lot on this aspect, to the extent they highlighted domains like societal, relational, ethical, technological knowledge and honest values also have a great role to play in patient's satisfaction. The researchers, who are working on 3rd world countries, have deputed certain dependent and independent variables to study the satisfactory level of patients.

Traditionally, the emphasis on designing healthcare settings was on the functional delivery of healthcare (Ulrich 1995). Gradually, this emphasis shifted towards designing healthcare environments that are 'psychologically supportive' (Djukic et al., 2013) also referred to as healing environments (Stichler, 2001; Sloan, Devlin & Arneill, 2003; Schweitzer et al., 2004). The concept of healing environments suggests that the physical environment of healthcare settings 'can make a difference in how quickly the patient recovers from or adapts to specific acute and chronic conditions' (Stichler 2001). Understanding physical environmental stimuli in healthcare facilities will allow us to create environments that

positively affect patients' healing process and well-being. Healing environments are claimed to have beneficial effects on various health indicators, such as anxiety, blood pressure, postoperative recovery, the use of analgesic medication, and the length of stay (Iqbal, Khan & Fahim, 2019). Moreover, if relatively inexpensive alterations such as introducing plants or colors can indeed shorten the length of stay, then these environmental changes may also prove to be highly cost effective. Previously conducted reviews on this topic (Winter et al., 2020) clearly state that environmental stimuli in the healthcare environment affect patient outcomes. These reviews each contribute to the field, whether by including non-clinical evidence or by taking a broad scope involving both patients and staff and including stimuli that provide a direct physiological hazard. However, a critical overview of methodologically rigorous studies is still lacking. Such an overview of the available conclusive evidence is needed to formulate practice guidelines for evidence-based design of healing healthcare facilities.

Chahal & Kumari (2010) suggest that patients base their perception of healthcare service quality on three dimensions: physical environment (comprising ambient condition, social factor and tangibles), interaction quality (comprising attitude and behaviour, expertise and process quality), and outcome quality (comprising waiting time, patient satisfaction and loyalty). Meanwhile, Rossettini et al. (2018) identified six service quality dimensions in public and private hospitals: empathy; giving priority to the inpatient needs; relationship between staff and patients; professionalism; food and the physical environment. Additionally, Brady and Cronin (2001) defined interaction quality, physical environment quality, and outcome quality as dimensions to measure service quality in the healthcare sector. Furthermore, Brady and Cronin (2001) explained that those three dimensions lead to service quality perceptions. In this context, interpersonal interaction between patients and services has the greatest impact on service quality perceptions. The patients' experience with hospital services, and the relationship between patients and the hospital are mainly influenced by functional and technical quality dimensions (Brady et al., 2006). Research conducted by Chahal and Kumari (2010) identified that the persons requiring medical treatment focus on three areas like physical environment (comprising ambient condition, social factor and tangibles), interaction quality (comprising attitude and behavior, expertise and process quality), and outcome quality (comprising waiting time, patient satisfaction and loyalty). Another team of researchers, Brady and Cronin (2001), discussed additional three areas which deal with valued observations. Furthermore, Brady and Cronin (2001) discussed interaction quality, physical environment quality, and outcome quality as major areas to judge top class facilities provided in the medical segment. Presently, social contacts between medical seekers and facilities have a significant influence on provision of class observations. Practical and procedural valued areas mostly incline patient relationship with medical units and patient association with medical units.

Due to the alteration in one living method, the medical needs of the human beings are also altered as heart and blood sugar related problems have also come up. The age of population has been reduced due to the reduction in newly born babies. This factor has increased the pressure on old people, resulting in the fall of the economy (Nadiri & Hussain, 2016). This factor enhanced the requirement of various investigations, conducted at medical centers. This has further increased the requirement of medical apparatus. Although there is a lot of gap, medical units will still have a lot of business in the coming days, and this sector will rise (CII-McKinsey, 2007).

Treatment seekers drive pleasure, if they get out class treatment and utilizing, their future appointment, is directly related to it. It is said with authority, that the class matters. It is very much desired that the value related stuff must be observed with lot of care of those who are seeking treatment and try to find out the link in sick person's opinion with his disease and his sickness performance. During the treatment process, physician try to care for his mental and sensitiveness while recommending the next appointment (Chung et al., 2008). This recommendation is directly related to the desire of sick person that how much he is attached with this clinic about its cost, way he is treated, amount of medical care he has received and how much his problem is addressed? There is a strong feeling that oral physicians have to raise the standard and enhance the fulfilment level of a person who visit them so that the person seeking oral treatment may visit them again. It is assumed that he should become their ambassador. The study revealed that providing only oral treatment is not enough. The other areas, like the service charges, atmosphere, approachable and cleanliness also need attention at the clinic (Alkazemi et al., 2019)

The level of attention lies in sick person's treatment but it revolves around hygienic conditions. The neat and clean environment of whole the institute has an impact. It is also beneficial that regular studies may be conducted about sick person's fulfilment standards. This will certainly help in reviewing the systems and develop a better business. It is desired that hygiene should be at top priority with all medical institutions. Now a days, sick persons have got a variety of medical institutions to select, from where they can get their medical treatment. As per the different reports on the subject, showed that the sick persons gave lots of weightage to hygiene. In fact, this is the only factor that determines his next visit. Keeping in view, the hygiene standard, they decide about the quality and standard of that medical institution.

DATA AND METHODOLOGY

In this study, each dimension of patient satisfaction serves as an independent variable while dependent variable is patient satisfaction. In order to find out the causal relation, the study has conducted an empirical research in private health sector of Pakistan. This research study has employed a survey strategy to collect data through questionnaire as it is suitable for identifying the patients' viewpoints regarding healthcare standards and

overall satisfaction. The population of this study is all the patients (In-Patients) who got treatment in private hospitals of Lahore. The list of all private hospitals in Lahore is given below, but due to time and resource constraints, the researcher was unable to include all these hospitals in the survey for data collection. For this reason the researcher chose a total of eight hospitals for the sake of data collection. The study distributed 450 questionnaires among respondents of different hospitals but eventually the researcher received 322 fully filled questionnaires that were usable for further analysis. The questionnaire has been comprised six dimensions as independent variable and overall patient's satisfaction as dependent variable. To measure patient satisfaction and waiting time the scale developed by Adamu and Oche (2014) was adapted. The scale for patient satisfaction consisted of 9 items whereas the scale for waiting time consisted of 4 items. Similarly, the scales for variables like physical facilities (6 items), diagnostic services (5 items), staff behavior (6 items), cleanliness of hospitals (5 items) and hospital cost (5 items) were adapted from Andaleeb, Siddiqui, and Khandakar, (2007).

FINDINGS OF THE STUDY

From a total of 322 respondents, there were 56.2% males, majority aging between 26-35 i.e. 33.2%, mostly having undergraduate degree, and belong to agriculture sector.

Table 1: Participants Profile

Gender	**Frequency**	**Percentage**
Male	181	56.2
Female	141	43.8
Total	**322**	**100.0**
Age Group		
15-25	86	26.7
26-35	108	33.5
36-45	65	20.2
Above 45	63	19.6
Total	**322**	**100.0**
Education Level		
Under Graduate	133	41.3
Graduate	107	33.2
Post Graduate	82	25.5
Total	**322**	**100.0**
Profession		
Govt. sector	16	5.0
Private Sector	72	22.4
Business	56	17.4
Agriculture	125	38.8
Unemployed	53	16.5
Total	**322**	**100.0**

The study used "KMO and Bartlett's Test" to check the independence of the items. Table shows the KMO value of this study to be 0.818 superceding the acceptable value i.e. 0.7. Similarly, "Bartlett's Test" provided us probability value 0.000 which indicates that the items are dependent to form indices.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.818
Bartlett's Test of Sphericity	Approx. Chi-Square	2135.904
	Df	303
	Sig.	.000

Following table provides the lodings and chronbach's alpha. 40 factors of 7-variables i.e. Patient Satisfaction, Waiting Time, Physical Facilities, Diagnostic Services, Behavior of Staff, Cleanliness, Cost were loaded above the criterion of cut-off value. Three items were below to 0.5 threshold level but these were very close to 0.5 and for that reason these were not excluded from analysis. Similarly, the results of reliability tests were found good enough as all the values of Cronbach alpha were above 0.6. The results of Pearson correlations shows that all variables are positively and significantly associated.

Table 3: Factor Analysis

Variable	Item/ Factor	Factor Loading (EFA)	Cronbach's Alpha
Patient Satisfaction	PS1	0.568	**.795**
	PS2	0.533	
	PS3	0.562	
	PS4	0.811	
	PS5	0.916	
	PS6	0.645	
	PS7	**0.491**	
	PS8	0.818	
	PS9	0.879	
Waiting Time	WT1	0.765	**.703**
	WT2	0.813	
	WT3	0.577	
	WT4	**0.488**	
Physical Facilities	PF1	0.818	**.737**
	PF2	0.879	
	PF3	0.538	
	PF4	0.585	
	PF5	0.826	
	PF6	0.857	
Diagnostic Services	DS1	0.868	**.784**
	DS2	0.769	
	DS3	0.616	
	DS4	0.600	

	DS5	0.672	
	BS1	0.790	
	BS2	0.772	
	BS3	0.853	
Behavior Of Staff	BS4	0.852	**.765**
	BS5	0.825	
	BS6	**0.644**	
	CL1	0.579	
	CL2	0.698	
Cleanliness	CL3	0.857	**.748**
	CL4	0.754	
	CL5	0.568	
	CST1	0.503	
	CST2	0.720	
Cost	CST3	0.867	**.680**
	CST4	0.747	
	CST5	0.604	

Table 4: Correlation Analysis

	Patient Satisfaction	**Waiting Time**	**Physical Facilities**	**Diagnostic Services**	**Behavior Of Staff**	**Cleanliness**
Patient Satisfaction	**1**					
Waiting Time	0.428**	**1**				
Physical Facilities	0.784**	0.500**	**1**			
Diagnostic Services	0.476**	0.213**	0.358**	1		
Behavior Of Staff	0.535**	0.165**	0.349**	0.507**	1	
Cleanliness	0.270**	0.037	0.616*	0.508**	0.597**	1
Cost	0.379**	0.165**	0.184**	0.407**	0.451**	0.494**

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

The Regression Analysis:
The impact of explanatory variables on the dependent variable (patient satisfaction) is given in table 5.

Table 5: Regression Analysis, Model Summary & ANOVA

Hypothesis	Variables	Beta Value (B)	Standard Error	t-value	p-value	Collinearity Statistics Tolerance	VIF
H1	Waiting Time	-.357	.042	-8.460	0.000	1.000	1.000
H2	Physical Facilities	.727	.032	22.623	0.000	1.000	1.000
H3	Diagnostic Services	.396	.041	9.676	0.000	1.000	1.000
H4	Behavior of Staff	.438	.039	11.341	0.000	1.000	1.000
H5	Cleanliness	.194	.039	5.009	0.00	1.000	1.00
H6	Cost	.290	.040	7.327	0.00	1.000	1.00

To check the "cause and effect" relationship between independent variable Waiting Time and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is -.357 (negative), T-Value is -8.460 (less than 2.00) and P-value is 0.000 (less than 0.05). Hence by keeping in view these results, researcher concluded that Waiting Time and Patient Satisfaction have highly significant negative relationship. Based on this conclusion, null hypothesis is rejected and alternative hypothesis H1 is accepted.
For the "cause and effect" relationship between independent variable Physical Facilities and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is .727 (positive), T-Value is 22.623 (greater than 2.00) and P-value is 0.000 (less than 0.05). Hence by keeping in view these results, researcher concluded that Physical Facilities and Patient Satisfaction have highly significant positive relationship. Based on this conclusion, null hypothesis is rejected and alternative hypothesis H2 is accepted.
To check the "cause and effect" relationship between independent variable Diagnostic Services and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is .396 (positive), T-Value is 9.676 (greater than 2.00) and P-value is 0.000 (less than 0.05). Hence by keeping in view these results, researcher concluded that Diagnostic Services and Patient Satisfaction have highly significant positive relationship. Based on this conclusion, null hypothesis is rejected and alternative hypothesis H3 is accepted.
To examine the "cause and effect" relationship between independent variable Behavior of Staff and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is .438 (positive), T-Value is 11.341 (greater than 2.00) and P-value is 0.000 (less than 0.05). Hence by keeping in view these

results, researcher concluded that Behavior of Staff and Patient Satisfaction have highly significant positive relationship. Based on this conclusion, null hypothesis is rejected and alternative hypothesis H4 is accepted.

For the "cause and effect" relationship between independent variable Cleanliness and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is .194 (positive), T-Value is 5.009 (greater than 2.00) and P-value is 0.000 (less than 0.05). Hence by keeping in view these results, researcher concluded that Cleanliness and Patient Satisfaction have highly significant positive relationship. Based on this conclusion, null hypothesis is rejected and alternative hypothesis H5 is accepted.

For the "cause and effect" relationship between independent variable Cost and dependent variable Patient Satisfaction, Regression Analysis, Model Summary & ANOVA was run by researcher. The value of β is .290 (positive), T-Value is 7.327 (greater than 2.00) and P-value is 0.000 (less than 0.05). The value of beta is positive and T value is also positive that is against the statement of alternate hypothesis H6 so based on results we cannot accept alternate H6 and null hypothesis is proved to be true. Hence cost and patient satisfaction are not negatively related according to results of regression analysis.

CONCLUSION AND POLICY OPTIONS

The present study has some important contribution for policy makers and top management of hospitals as it is proved by the results of present study that hospital top management should be careful about patient satisfaction as it is very important factor for the success of any hospital. Decision makers need to understand that they should listen their customer more and more and there should be good interaction between hospital staff and patients and make every step to reduce the long waiting time as it strongly disturbs the level of satisfaction in patient. Similarly, patient wants a changed environment as it is nature of human being that he wants change so hospital managers should try to make their hospital physical environment innovative and distinctive in such a way that it leaves pleasant impression on patients. The current model of the study may be used for other hospitals which seek to improve their service quality and its delivery as the present model will not only indicate their weak areas but also help them to identify the stronger areas and refine them in order to attract more and more patients. The present study is the pioneer one in the context of Pakistan which opens new horizons in healthcare sector as it clearly mentions that the present era belong to patient's needs and wants and the hospital must understand that it is now patient centric not the healthcare provider centric so they need to give patients more and more importance.

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