



**A CRITICAL STUDY ON PATIENT SATISFACTION OF SERVICES PROVIDED TO INDOOR AS WELL AS OUTDOOR (OPD) PATIENTS IN GOVERNMENT AND PRIVATE HOSPITALS**

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**ABSTRACT**

As health is a fundamental human right, every country has the responsibility to provide adequate health facilities to its people and thereby improve their quality of life and internal stability of nation. Economic as well as social development of a nation is depending on the health of its population. Good health confers on a person or group, freedom from illness and the ability to realise one's potential. Health is an indispensable basis for defining a person's sense of wellbeing. It is a level of metabolic efficiency of an organism, often implicitly human. Hospitals are operating in an extremely competitive world where patient satisfaction has become key in gaining and maintaining market share. The patients of today expect personal attention, explanation of problems, assurances of relief and satisfaction of complaints. Patients' perception on services has a significant influence on their level of satisfaction. Thus, it is important for a hospital to provide quality services to its customers and also assess patients' satisfaction. Patient satisfaction studies help the hospitals to evaluate the healthcare system, the quality of care provided and hospital-patient relationships and to make positive changes in the services up to the patients' satisfaction to retain them as loyal customers. Results of patient satisfaction studies can even reveal the strength and weakness of the health care environment perceived by customers.

**KEY WORDS: Health, Hospital Industry, Patient Satisfaction, World Health Organization's (WHO).**

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## **1. INTRODUCTION**

### **1.1 Hospital Industry–An Overview**

The current study is conducted in medical college hospitals in West Bengal for there is a need for having a deep discussion on the hospital industry. Thus, this chapter provides an overview of hospital industry in West Bengal.

### **1.2 Introduction to Hospital Industry**

Apart from the fundamental health service, health industry is not only backing up the human resource but it helps the growth of national development by involving in the market by its investment in national infrastructure. West Bengal is a state having prime standard in its medicine and health services. West Bengal model of health system got acknowledged by World Health Organisation because of its high literacy, low mortality, low infant mortality rate, high life expectancy rate and control in epidemics. Life expectancy rate in 1930 was at a low rate of 29 years which turned to 74 years in the present time which is the highest in the country. Not only the public health care system but also the small clinics in the village and remote areas and the super speciality hospitals are also having special role in achieving this high standard. The conservation of health and improving standards of health care are essential to both individual and nations. Constitution of India considers the subjects of public health and the sanitations of hospitals and dispensaries in the state list while medical education and medical profession come under the concurrent list. According to the World Health Organization's (WHO) Constitution, health is described as "a state of full physical, mental, and social wellbeing, rather than merely the absence of disease or infirmity." (Sakharkar et al., 2009) Khan (1999) "Health is a complex state of wellbeing of the person and community of physical, emotional, moral, economic, political, and social wellbeing following environment and God," according to the Christian Medical Commission (Methodist Church, 1985). Health is crucial for a person to live a happy life, but it is also required for all productive society activities (Anand, 1976). Health refers to one's ability to live a socially and economically productive life (Ratna Vani, 2013). There are

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many aspects of health, each of which is crucial. The relative value of each dimension concerning the others is determined by the circumstances under which a person or a group operates (Misra, 2007).

### **1.3 Indian Healthcare System**

While public health is a shared responsibility shared by all governments, health services vary significantly between countries. It is influenced by broad, ever-changing national, state, and local health problems, needs, attitudes, and available resources. In countries that consider health care a fundamental right, the state is the primary provider, and care is heavily subsidized. In countries where health care is regarded as a commodity, the private sector is the dominant provider, and health care costs are determined by the market (Ratna Vani, 2013). India has a mixed economy, with equal participation from the private and public sectors.

Healthcare is one of the largest sectors of India which is expanding rapidly in terms of revenue and employment. Indian healthcare industry is expected to become a US\$280 billion industry by 2020. The major factors which contribute to this growth are increase in income levels and a growing elderly population. In addition, changing demographics, disease profiles and the shift from chronic to lifestyle diseases in the country has led to increased spending on healthcare delivery (Girija, 2014).

### **1.4 Public Healthcare System in India**

The public health care system in India comprise of a set of state-owned health care facilities funded and controlled by the government of India. Some of these are controlled by agencies of the central government while some are controlled by the governments of the states of India. The governmental ministry which controls the central government interests in these institutions is the Ministry of Health & Family Welfare. Governmental spending on health care in India is exclusively this system; hence most of the treatments in these institutions are either fully or partially subsidized. The central government is in charge of developing new health programs as well as forming health policies. It aids state governments in the implementation of health policies by providing financial and technical assistance (Goel & Kumar, 2004).



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## **1.5 Private Healthcare System in India**

About 30 years back, the private health care sector consisted of only solo practitioners, small hospitals and nursing homes. The quality of services provided by hospitals run by charitable trusts and religious foundations was excellent too. In 1980s government realized that it alone would not be able to provide good quality health care to all. Government started to provide numerous subsidies to private health providers and allowed them to enter into market in order to reduce the gap between supply and demand for health care. Private health providers started to serve the middle class which was dissatisfied with the public health sector and sort to exit it wherever possible. They also opened up market in the 90s which further gave drive to the development of the private health sector in India. The increasing demand along with lack of health care facilities (both in quality and quantity) is expected to work in favour of the private corporate players. Driven by the change drivers, the health care services scenario in India is expected to evolve to a more developed stage (Nargundkar,2004).Between2005and2015,for-profit hospitals accounted for 80% of new beds built. In India, private healthcare providers innovate at a breakneck pace, providing high-quality services at a low cost.

## **1.6 Resurgent India demands better quality of life**

India is no more a country of lions and fakirs. India has emerged as one of the fastest growing major economy in the world as per the Central Statistics Organization (CSO) and International Monetary Fund (IMF). The per capita national income just after independence was Rs 274 in 1950. It increased slowly to Rs 6,270in1990.The Indian economy resurgence lead to the per capita national income becoming Rs 58,534in 2010 and Rs 88,533 in 2015 and it crossed 1 lakh mark to Rs. 1,03,219 in 2016-17 (Press Information Bureau GOI, 2017). The rapid economic growth of India has now ensured that the average household incomes will triple over the next decades and it will become the world's 5th largest consumer economy by 2025, significantly ahead from the 12th position it occupies now (Ablett et al, 2013).



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## **1.7 Global Focus on Quality Health Care**

Over the years mankind has learnt many lessons through experiences and knowledge sharing. Yet the challenges faced by governments in both developed and developing countries is to decide which quality strategies would have the greatest impact on the outcomes delivered by their health systems. The strategies may be complemented by and integrated with existent strategic initiatives. The developed countries that already have well developed health care systems and adequate resources, still find themselves deficient on quality aspects, as the goals of outcomes are not successfully achieved and there are wide differences in the standards of healthcare. This is the reason why in the survey of Healthcare Access and Quality (HAQ)Index, developed and resourceful countries like the United Kingdom and United States of America are ranked behind, at 30th and 35th ranks. On the other hand, in developing countries, there is a need to optimize resource use and expand population coverage. The process of improvement needs to be based on sound local strategies for quality, so that the best possible results are achieved. India ranks at 154th position (Barber et al, 2015).

## **1.8 The Health of Health Sector in India present and past scenario**

India's public health care system has developed over the last 60 years due to various factors, including British colonial influence. In India, there is a critical need for a well-functioning public health system. A nation's public health system comprises all coordinated programs that aim to prevent disease, extend life, and improve people's health and productivity. Medical care provision has long dominated India's healthcare system, though public health has been ignored. India has the highest maternal and infant mortality rates globally, accounting for 11.9 percent of all maternal deaths and 18 percent of all infant deaths. By the age of five, 36.6 children out of 1000 are dead. Children are immunized to the tune of 62% of the population. In India, infectious diseases account for 53% of all deaths.

The Union Ministry of Health and Family Welfare implements public health programs that



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impact people across the country, such as the National Health Mission, Ayushman Bharat, and the National Mental Health Program. Primary health centers, community health centers, sub-centers, and government hospitals are among the various programs in place in India's rural and urban areas. These programs must adhere to the guidelines outlined in the Indian Public Health Standards documents, updated as required.

During the colonial era, public health services were primarily concerned with British people's health in India. While only 3% of Indian households had toilets at the time, the era saw research institutes, public health legislation, and sanitation departments. The prevention of infectious disease outbreaks was emphasized in the annual health reports. Death rates from infectious diseases like cholera had dropped to historic lows by the end of the colonial period, though other diseases remained prevalent.

### **1.9 Facilities**

Mainly, the primary, secondary, and tertiary cares are the three tiers of the healthcare system implemented throughout India. Sub Centres and Primary Health Centres are at the primary level (PHCs). Community Health Centers (CHCs) and smaller Sub-District hospitals or Sub-District hospitals (SDH) and the District hospitals (DH) are available at the secondary level. Finally, the government's tertiary level of public care, including Medical Colleges and some specialized Hospitals like cancer hospitals/ specialized orthopaedic hospitals, is the highest level of government-provided care. In the last six years, the number of primary health care centers, community health centers, sub-centers, and district hospitals has risen, but not all of them meet Indian Public Health Requirements.

### **1.10 Government Public Health Initiatives**

The Prime Minister of India founded the Public Health Foundation of India (PHFI) in 2006 as a public- private partnership. This organization's mission is to get more public health initiatives and experts into the healthcare arena. PHFI also works with international public health

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organizations to collect more information and focus conversations on the system's needs and changes. Officials in policy making roles often lack public health knowledge, and MPH and Ph.D. programs in public health are under-resourced. The Public Health Foundation aspires to expand these initiatives and teach more people about public health. The study's findings will be made public so that the entire Indian population is aware of the country's health standards.

### **1.11 Structure of HealthCare**

The facilities (e.g., hospitals and clinics), staff (e.g., number of nurses and physicians), and technology make it possible to provide health services make up the health care structure. The efficiency of healthcare facilities is supposed to be influenced by structural characteristics. The analysis of the adequacy of institutional features, such as staffing, on-call personnel, technology, and support services, is one component of health care facility accreditation (e.g., hospitals, nursing homes) (laboratory, pharmacy, radiology). Quality health care programs are built on the structural capital of health care facilities and organizations.

### **1.12 Public Health Perspective on Health Services**

Preventive health programs are conceptualized at three levels: primary, secondary, and tertiary prevention in public health. Immunizations, a safe lifestyle, and working and living in low-risk settings are primary prevention examples. Primary prevention aims to avoid or postpone the onset of disease. Immunizations against infectious diseases, smoking abstinence, and the encouragement of physical exercise, weight management, and a healthy diet are primary prevention examples. Secondary prevention refers to a collection of strategies for reducing the effects of disease morbidity and slowing its development after it has already occurred. With the increasing prevalence of chronic diseases, many healthcare resources are focused on secondary prevention. Rehabilitation for injuries caused by illness and injury is the focus of tertiary prevention. Tertiary prevention aims to help people get back to their best physical, emotional, and social selves. The public health system adds to the structure, mechanism, and result





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conceptual model by defining the function and importance of health services at three stages: before disease onset, during disease management, and disease recovery and rehabilitation.

### **1.13 Service Quality**

Quality is an essential factor in consumers' hospital selection (Lynch & Schuler, 1990). Customers will look for a better product if the quality is poor. So, in order to satisfy a customer, the product's quality should be high. Quality is a value-added offering that provides a more satisfying experience, causing the customer to return for more of the same pleasurable experience. It is necessary to build long-term loyalty. In the face of competition, it aids in gaining a larger market share. It alone contributes to word-of-mouth publicity. It requires effort and is never achieved by chance. Service quality is a relatively new concept. It is the interpretation of an event. It is the customer's reaction to what the service provider has done to him. When a nurse responds to a patient's call within a minute, this is considered fast or slow depending on how urgently the patient required her. The one-minute time limit may be too long for some patients, causing them to repeat the call or even shout for the nurse. The difference between expectation and perceived experience is the difference in service quality. The American Society for Quality Control defines quality as the sum of a product's or service's features and characteristics that bear on its ability to meet stated or implied needs. According to this definition, the totality of features and characteristics means that every aspect of product or service delivery is critical. A high-quality hospital service, for example, includes not only diagnosis, treatment, and surgery, but also nursing, the hospital environment, including hygienic ward maintenance, the quality of food provided to patients and accompanying relatives, and uniforms and dresses (Govind Apte, 2004).

### **1.14 Characteristic Features of Hospital**

Hospitals are the centers for medical care and treatment to the people who are unfit. A hospital is supposed to provide comprehensive system of preventive and curative medicine and rehabilitation service. The main characteristic features of a hospital are as follows:

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- ❖ The hospital's slogan is "service, "which cannot be measured in economic terms and for which no objective criterion can be established.
  - ❖ Patient care is often tailored to the person.
  - ❖ Physicians, nurses, and other skilled staff provide medical care based on each individual's needs and requirements.
  - ❖ Hospital services are typically urgent, and not cases area like interms of care.
  - ❖ The people who work in hospitals vary from highly trained professionals to those who have never attended school.
  - ❖ In the hospital, dual control by professional authority often results in managing conflict, which is a unique circumstance that any hospital administrator must deal with daily.
  - ❖ A hospital must respond quickly to the community's health needs and quality expectations.
  - ❖ Hospital work is always unpredictable and uneven.
  - ❖ Transparency and accountability are essential. Making a mistake when in a patient's care has significant life and legal ramifications (Tabish, 1998).

## **2. RESEARCH METHODOLOGY**

### **2.1 Research Design**

The present study was a Comparative, cross-sectional and non-interventional clinical audit done among patients attending the out-patient department (OPD) of Nil Ratan Sarkar Medical College & Hospital, Kolkata, India and Calcutta Medical Research Institute, Kolkata, India.

### **2.2 Inclusion criteria and Exclusion criteria:**

Inclusion criteria for new patients above 18 years old and attending the hospital OPD. Patients not willing to participate and follow up patients were excluded from the study. Also, patients below 18 years and patients attending the Emergency were also excluding.



### **2.3 Place and duration of Study**

Nil Ratan Sarkar Medical College & Hospital (More than 1800 bedded Government MCH) & Calcutta Medical Research Institute (Private 500 bedded super-specialty teaching Hospital), Kolkata during the period from 2019-2020

### **2.4 Sources of Data**

Both secondary data and primary data were used for this study.

- ❖ **Secondary Data:** Secondary data was gathered using desk analysis from university research papers, journals, books, government reports, NRHM annual reports, and e-resources..
- ❖ **Primary Data:** The study's primary data collected from inpatients at a few Medical College Hospitals.

### **2.5 Population of the Study**

Patients attended OPD at Government and Private Medical College Hospitals in West Bengal and Punjab make up the specified target population.

### **2.6 Sample Frame**

A total of 12 Medical College hospitals in West Bengal that were established before 2018 are included in the sample frame. The research included five medical college hospitals from the public sector and seven from the private sector.

### **2.7 Data collection**

The total number of samples collected from government hospitals were 3313 and from the corporate hospital were 1043. A pre-tested interviewer administrated directly on the sport questionnaire was used to ensure a complete response. Informed Consent was obtained before interviewing the patients. Persons seeking treatment were chosen at random from each of the hospitals and health facilities to represent the surgical and nonsurgical departments, including emergency, using a simple random sampling technique. In the case of paediatric patients, adult caregivers were asked about their hospital experiences. Clients who were mentally challenged, under the influence of any substance or alcohol, hearing impaired or unable to communicate for

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any other purpose was not permitted to participate. Users or clients accessing health care at public institutions such as district hospitals (DHs), sub district hospitals (SDHs), community health centres (CHCs), and primary health centres (PHCs) provided information (PHCs). Exit interviews were performed using a standardised research tool/interview schedule at each chosen hospital/health facility from people seeking outpatient and inpatient health care. Each district usually has one DH and one SDH for secondary care institutions, as well as several CHCs and PHCs for primary care institutions. As a result, the sample included both DHs and SDHs, and two CHCs and six PHCs were chosen at random from a list of CHCs and PHCs in each of the 22 districts. The research took place between January and February of 2021. At any given time, the incidence of illness in the Indian population averages about 10%. Assuming that 10% of the population seeks outpatient department (OPD) health care, a sample size of 150 was required for each district, with a power of 80% and precision of 5%, and a 10% non-response rate. Hospitalization rates in a country range from 1% to 5% of the total population. Based on a 5% hospitalization rate, a sample size of 74 inpatients was calculated for each district. As a result, the overall sample size for each district was  $150 + 74 = 224$ , and the state level table-1 allowed a sample size of  $224 \times 22 = 4928$ .

**Table-1: Sampling framework for the clients satisfaction survey in Punjab**

Serial NO.	Type of facility	Number of patients from OPD	Number of patients from IPD
1	DH	30	20
2	SDH	30	20
3	2 CHCs	$15 \times 2 = 30$	$2 \times 5 = 10$
4	6 PHCs	$10 \times 6 = 60$	$6 \times 4 = 24$
	Total	150	74
	Grand total(for Each district)	224	



### 3.RESULTS AND DISCUSSION

#### 3.1 Perceived Service Quality in Government and Private Medical College Hospitals

The first objective of the study was to compare the patients ‘‘perception on service quality in government and private medical college hospitals. Perceived Service Quality is the quality of services perceived/experienced by patients during hospital stay. Researcher has done the comparative analysis on overall Perceived Service Quality and on each dimensions of Perceived Service Quality. Since the data being non-normal, researcher used Mann-Whitney Test to compare the score of Government Medical College Hospitals and Private Medical College Hospitals and results are discussed under.

#### 3.2 Patients’ Perception on Service Quality

The respondents were asked a set of 51 questions in the five point Likert scale regarding the various aspects of the service quality in the hospitals. The responses are then score das 1 for ‘‘Strongly Disagree’’, 2 for ‘‘Disagree’’, 3 for ‘‘Neutral’’, and 4 for ‘‘Agree’’ and 5 for ‘‘Strongly

$$MPS = \frac{\text{Mean score of the variable} \times 100}{\text{Maximum possible score}}$$

Agree’’. The total score of the questions for all 770 respondents is found out, based on which the of the Perceived Service Quality is calculated.

This score is classified into one of the five groups as, ‘‘Poor’’ if the Mean Percentage Score is less than 20%, ‘‘Fair’’ if the Mean Percentage Score is between 20 % to 40 %, ‘‘Good’’ if the Mean Percentage Score lies in the interval 40% to 60%, ‘‘Very good’’ if the Mean Percentage Score lies in the interval 60% to 80% and, ‘‘Excellent’’ if the Mean Percentage Score is above 80%.

**Table-2.Level of Perceived Service Quality**

<i>Sector of MCHs</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>MPS</i>	<i>CV</i>	<i>Level of PSQ</i>
Government	385	208.17	27.04	87.02	12.97	Excellent
Private	385	241.58	17.80	92.20	8.22	Excellent

(Source: Primary dataset-2)



Table 6. shows that the Mean Percentage Score of the Perceived Service Quality for the Government Medical College Hospitals is 87.02 % and that of Private Medical College Hospitals is 92.20 %. It indicates that level of Perceived Service quality is excellent for both

$$CV = \frac{\text{Standard deviation} * 100}{\text{Mean}}$$

Government Medical College Hospitals and Private Medical College Hospitals.

This indicates that this score is stable as the value is less than 20%. Here CV for Government Medical College Hospitals is 12.97 and that for Private Medical College Hospitals is 8.22. Hence the values are stable.

Though patients of Medical College Hospitals in both sectors reported excellent level of Perceived Service Quality, Mean score is higher to Private Medical College Hospitals than Government Medical College Hospitals. Hence there is a need to Test whether the difference in Mean of Perceived Service Quality is statistically significant or not. For that the following hypothesis is formulated.

H0: There is no significant difference in Perceived Service Quality between Sectors. H1: There is significant difference in Perceived Service Quality between Sectors.

Mann-Whitney Test is performed and the result is exhibited in the following Table.

**Table-3.Result of Mann-Whitney Test of Perceived Service Quality for Sector**

<i>Variable</i>	<i>Sector of MCHs</i>	<i>N</i>	<i>Means</i>	<i>SD</i>	<i>Z</i>	<i>p value</i>
<i>Perceived Service Quality</i>	<i>Government</i>	385	207.27	26.04	-13.608	<0.001
	<i>Private</i>	385	233.28	17.70		

(Source: Primary data set-2)



Table depicts that the Mean score of the Perceived Service Quality of the Government Medical College Hospitals is 209.17 with  $\sigma$ 26.04 and that of Private Medical College Hospitals is 233.28 with  $\sigma$ 17.70, which indicate that the Mean score of Perceived Service Quality for the Private Medical College hospitals is higher than the Government Medical College Hospitals. The Mann-Whitney Test conducted to find out whether this variation is significant or not is found significant as the p value is  $<0.001$ . Hence the null hypothesis is rejected. So it can be concluded that Private Medical College Hospitals have more Perceived Service Quality than Government Medical College Hospitals. The following box plot gives the spread and variation of the Perceived Service Quality of the Government and Private Medical College Hospitals.

### 3.3 Patients' Perception on Reliability

The respondents were asked a set of 2 questions in the five point Likert scale regarding different aspects of Reliability. The responses are then scored as 1 for „Strongly Disagree“, 2 for „Disagree“, 3 for „Neutral“, 4 for „Agree “and 5 for „Strongly Agree“ .The totals core of the questions for all 770 respondents is found out, based on which the Mean Percentage Score of Reliability is calculated. This score is classified into one of the five groups as „Poor“if the Mean Percentage Score is less than 20% „Fair “if the Mean Percentage Score is between 20 % to 40 %, „Good“ if the Mean Percentage Score lies in the interval 40 % to 60 %, „Very good“ if the Mean Percentage Score lies in the interval 60%to80% and, Excellent “if the Mean Percentage Score is above 80 %.

**Table-4.Level of Reliability**

<i>Sector of MCHs</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>MPS</i>	<i>CV</i>	<i>Level of Reliability</i>
Government	385	8.40	1.25	84.00	14.88	Excellent
Private	385	9.20	0.86	92.00	9.35	Excellent

(Source: Primary dataset-2)



From the table it is noted that the Mean Percentage Score of the Reliability of Government Medical College Hospitals is 84% and that of Private Medical College Hospitals is 92 %. It indicates that level of Reliability is Excellent for both Government Medical College Hospitals and Private Medical College Hospitals. The CV indicates that these scores are stable as the values are less than 20%. Though patients of Medical College Hospitals in both sectors reported excellent level of Reliability; Mean score is higher for Private Medical College Hospitals than Government Medical College Hospitals. Hence the reisa need to Test whether Reliability significantly varies between sectors. For that the following hypothesis is formulated.

H0: There is no significant difference in Reliability between Sectors. H1: There is significant difference in Reliability between Sectors. Mann-Whitney Test is performed and the result is exhibited in the following Table.

**Table-5. Result of Mann-Whitney Test of Reliability for Sector**

<i>Variable</i>	<i>Sector of MCHs</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Z</i>	<i>p value</i>
Reliability	Government	385	7.40	1.24	-10.334	<0.001
	Private	385	8.20	0.85		

(Source: Primary dataset-2)

Table-5 shows the Mean and Standard Deviation, Z value and p value of Mann-Whitney Test. Patients in Private Medical College Hospitals perceive high Reliability (Mean 9.20 with  $\sigma$  0.86) than the patients in Government Medical College hospital (Mean 8.40 with  $\sigma$  1.25). The result of the Mann-Whitney Test shows Z value -10.334 with p value <0.001. Hence the null hypothesis is rejected and it is concluded that the difference is statistically significant. It concludes that Private medical college hospitals are more reliable than Government Medical College Hospitals. The following box plot gives the spread and variation of the Reliability of the Government and Private Medical College Hospitals.





The respondents were asked a set of 5 questions in the five point Likert scale regarding the different aspects of Assurance. The responses are then score as 1 for “Strongly Disagree”, 2 for “Disagree”, 3 for “Neutral”, 4 for “Agree” and 5 for “Strongly Agree”. The total score of the questions for all 770 respondents is found out, based on which the Mean Percentage Score of Assurance is calculated. This score is classified into one of the five groups as “Poor” if the Mean Percentage Score is less than 20%, “Fair” if the Mean Percentage Score is between 20 % to 40 %, “Good” if the Mean Percentage Score lies in the interval 40 % to 60 %, “Very good” if the Mean Percentage Score lies in the interval 60% to 80% and “Excellent” if the Mean Percentage Score is above 80 %.

**Table-6. Level of Assurance**

<i>Sector of MCHs</i>	<i>N</i>	<i>Mean</i>	<i>SDMP</i>	<i>S</i>	<i>CV</i>	<i>Level of Assurance</i>
Government	385	21.15	3.09	84.6	14.61	Excellent
Private	385	22.35	2.01	89.4	8.99	Excellent

(Source: Primary dataset-2)

It is noted from the table-6 that the Mean Percentage Score of Assurance of Government Medical College Hospitals is 84.6% and that of Private Medical College Hospitals is 89.4%. It indicates that level of Assurance is Excellent for both Government and Private Medical College Hospitals. The CV indicates that these scores are stable as the values are less than 20%. Though patients of Medical College Hospitals in both sectors reported excellent level of Assurance, Mean score is higher to Private Medical College Hospitals than Government Medical College Hospitals. Hence it is needed to Test whether Assurance significantly varies between sectors. The following hypothesis is formulated.



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H0: There is no significant difference in Assurance between Sectors. H1: There is significant difference in Assurance between Sectors.

Mann-Whitney Test is performed and the result is exhibited in the following Table.

**Table-7: Result of Mann-Whitney Test of Assurance for**

**Sector**

<i>Variable</i>	<i>Sector of MCHs</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Z</i>	<i>p value</i>
Assurance	Government	385	22.15	3.09	-6.420	<0.001
	Private	385	21.35	2.01		

(Source: Primary dataset-2)

From the table-7, it is clear that the Means core of Assurance of Government Medical College Hospitals is 22.15 with  $\sigma$  3.09 and that of Private Medical College Hospitals is 21.35 with  $\sigma$  2.01. It indicates that the Mean score of Assurance for the Private Medical College Hospitals is higher than the Government Medical College Hospitals. Z value (-6.420) resulted from Mann-Whitney Test conducted to find out whether this variation is significant or not is found significant as the p value is <0.001. So the null hypothesis is rejected and it is concluded that the Private Medical College Hospitals assure more than Government Medical College Hospitals. The following box plot gives the spread and variation of the Assurance of the Government and Private Medical College Hospitals.

#### 4. CONCLUSION

In the growing competitive world service managers face a number of challenges which raise the significance of research in service marketing. Health care sector is one of the major areas in service sector which contribute to social and economic welfare of society. The health care industry in India is reckoned to be the engine of the economy in the years to come as it is worth



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\$17 billion and is anticipated to grow by 13% every year. Hospital is a unique service industry which deals with the services like diagnosis, treatment and preventing diseases, illness and injuries, physical and mental impairments in humans. The growth of hospitals as profit motive business entities and extensive competition with many new players in the field resulted in poor service quality as perceived by the customer. This situation made Service Quality a key differentiating factor for hospital service providers to improve their market and profit positions. In summary, the findings showed that in the corporate health services the quality of OPD services enjoyed a bit higher status in some aspects as compare with Government hospitals. Because the issue of health services quality is important for customers, the importance of the findings is that we can focus more on the few weaknesses that have been found out by this survey and, by taking appropriate remedial actions and providing latest management techniques, facilities, equipment and paying more attention to amenities for customers to improve the public sector services.

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