

# **EVALUATION OF SERVICE QUALITY GAP: A STUDY OF PRIVATE HOSPITALS OF PUNJAB**

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## **Abstract**

Nowadays, a patient's perception is seen as the most influential measure of health care facilities. It has gained popularity among service providers because it provides hospitals with input on the services they provide. In fact, due to mushrooming of health care service quality, the aspirations of patients about the quality of the services provided by hospitals have enhanced now. Despite the fact that the significance of service quality in the healthcare sector has grown in India, still there is a lack of research related to the quality of healthcare service provided. This study contributes to past service quality research by shedding light on the service quality gap between the expectations and perceptions of patients receiving services in private hospitals. To identify the gap, the SERVQUAL scale was used and the results were calculated using the paired t-test. Data was collected from 375 respondents taking services from private hospitals of Amritsar, Jalandhar and Ludhiana. Results of the t-test demonstrate that there was a statistically significant gap between Punjab's private hospitals and the highest gap exists in the assurance dimension of service quality, which includes that patients don't feel that secure in receiving medical care also they feel less trust and confidence in doctors and hospital staff. Furthermore this study directs health care providers to vulnerabilities that need to be resolved on an urgent basis in order to meet patient needs.

**Keywords:** Healthcare service, Perception, Expectation, SERVQUAL

## **1. Introduction**

Nowadays the health care sector in India is one of the fastest-growing industries in terms of care infrastructure and the availability of latest technology equipment (Bhuyan, 2019) and expected to grow up to \$280 US billion dollars by 2020 (IBEF, 2019). Likewise, the health care industry in Punjab has also mushroomed over a period of time, as a large number of public as well as private hospitals are available in the state to cater the needs of patients and provide better standard services. However, still, there exists a gap in service quality provided at public and private hospitals (Statistical Abstract Punjab, 2018). As a result it was identified that despite all the developments, the Indian health care sector falls below the minimal requirement of international standards (Firstpost, 2019).

Moreover, providing quality services to the patients as per their expectations is the only aspect, which can help service providers in having a competitive edge. As a result of this the government of India, as well as Punjab state, is putting in many efforts to cater to the health care needs of people and eradicate gaps. While using health care services, the expenditure on treatment is one of the major factors taken into consideration by the patients. As the previous studies signify the affordability of services provided at public hospitals and the provision of best quality treatment at private sector hospitals. However, the average expenditure of services is far more in private sector hospitals as compared to the public sector hospitals (Government of India, 2014). It is no doubt true that India is struggling to provide its public with universal health care (The Hindu Centre for Politics and Public Policy, 2014). However, the financial expenditure done by the Indian government on the health care industry is observed to be far less than the developing neighbour countries (Planning commission of India, 2011).

Nevertheless, as per the current scenario of health care in India, there exists a considerable gap in affordability, availability, access and accommodation, which leads to a lack of proper attainment of access to health care. Furthermore, inequities in the health care industry are growing, and health care access is worsening in India

(Hadley and Cunningham, 2004). The perception of a patient is the most prominent gauge of quality in health care services and it has gained importance amongst service providers, as it provides feedback to the hospitals regarding services delivered by them. Moreover, patient perception is recommended as one of the primary determinants of patients satisfaction (Choi, et al., 2004; Kitapci et al., 2014) as it subsequently affects patient's behavioral intention regarding hospital choice in future (Zeithaml et al., 1996). Various study results demonstrate that meeting patient expectations was linked to his / her high satisfaction with associated services, in the same way that unmet expectations relate to discontentment (Dawn, 2004).

**2. Review of literature**

Review of literature states that health care providers need to have a closer look at the perception and expectations of their patients as health perceptions play an important part in ensuring sound health outcomes. Also, they should try to provide the best quality health services to meet the expectations of patients.

Lee et al. (2000) stated that delivery of services to patients in compliance with their needs and preferences is essential to the sustainability and company's future within the competitive environment of the health care sector. Zeithaml et al. (1996) identified that accurate understanding of customer needs and preferences is the most critical step in defining and providing high-quality services to. Kucukarslan et al. (2008) found that patient perceptions are derived from their understanding of good quality of treatment or prior experience in the use of facilities. Youssef et al. (1995) assessed the level of service at the West McCain Hospital and in a total of five dimensions of SERVQUAL, found that the patient's experiences did not meet their expectations. Lim and Tang (2000) carried out their study to determine the expectations and perceptions of patients in Singapore hospitals by the use of updated SERVQUAL, which includes 25 things in six dimensions namely: tangibles, reliability, assurance, responsiveness, empathy, accessibility and affordability. Their research showed the presence of an overall quality of service difference between patient perceptions and expectations. Sohail (2003) conducted a study to analyze and assess the quality of service rendered by private hospitals in Malaysia by using a modified SERVQUAL instrument and found that hospitals in Malaysia had received facilities that met the needs of patients. However, it was found that Malaysians had poor standards of health care. As a consequence, most of them rely on government hospitals because of low prices. Rohini and Mahadevappa (2006) applied the SERVQUAL system and used SERVQUAL variables in their Bangalore (India) hospital report and studied the expectations of both patients and hospital management. The study concluded that there was an overall discrepancy between the perceptions and expectations of patients and the perceptions and expectations of patients by management.

Zarei et al. (2012) examined quality of service in private hospitals in Iran, evaluating the standard of service received by patients. They found that the best desires and beliefs were connected to the tangible dimension. On the other hand, the lowest aspirations and beliefs were correlated with the feeling aspect of the fellow. Pramanik (2016) in addition to a comparative analysis on urban and rural hospitals, attempted to measure patient perception of quality of health care services in India. The hypotheses were verified using SERVQUAL. The findings reveal that the quality of health care service was unsatisfactory, and the preferences of dimensions of patients in urban and rural areas were distinct. These gaps are caused by a lack of knowledge, expensive modern medical substances and treatments. Previous research found that trained and experienced practitioners and modern medical equipment and technologies have a significant effect on consumer satisfaction and patient care Anh et al. (2017).

**3. Research Methodology**

**3.1 Data Collection**

The universe of this study was an inpatient at private hospitals of Punjab. A random sampling technique was used for data collection and customized to those hospitals serving from the past five years and having more than fifty beds. As a result eighteen multispecialty private hospitals selected randomly from three cities of Punjab (seven hospitals from Amritsar city, six hospitals from Jalandhar city, and five hospitals from Ludhiana city) were considered for data collection. Data was collected using a closed-ended structured questionnaire. The proposed sample was of 425 respondents, (which is more that 385 sample size, calculated using sample size formula) as it was found that few ambiguous responses were there. Certain questionnaires were rejected due to incomplete and having more than one response. The actual sample of 375 responses (88 percent response) was considered, consisting of 125 responses from each city

**Table 1: Sample Design for the Present Research Study**

Amritsar City		
S. No.	Hospital Name	Responses
1	EMC Hospital	15

2	Fortis Hospital	25
3	Amandeep Hospital	21
4	K D Hospital	16
5	Madaan Hospital	16
6	Nayyar Hospital	16
7	Navpreet Hospital	16
<b>Total Responses</b>		<b>125</b>
<b>Total Responses From Amritsar = 250</b>		
<b>Jalandhar City</b>		
<b>S. No.</b>	<b>Hospital Name</b>	<b>Responses</b>
8	Tagore Hospital & Heart Care Centre, Pvt. Ltd	30
9	Oxford Hospital	30
10	Johal Multi Speciality Hospital	16
11	Patel Hospital	20
12	Bbc Heart Care, Pruthi Hospital	10
13	Joshi Hospital & Trauma Center	20
<b>Total Responses</b>		<b>125</b>
<b>Total Responses From Jalandhar = 250</b>		
<b>Ludhiana City</b>		
<b>S. No.</b>	<b>Hospital Name</b>	<b>Responses</b>
14	Apollo Hospital	55
15	Ludhiana Mediciti Hospital	15
16	Ludhiana Mediways Hospital	15
17	Toor Hospital	20
18	Saubhagya Multi Speciality Hospital	20
<b>Total Responses</b>		<b>125</b>
<b>Total Responses From Ludhiana = 250</b>		

### 3.2 Data Tools Used

Nonetheless, the SERVQUAL model, created by Parasuraman et al. (1988) was one of the most successful and most commonly used methods for determining patient preferences and perceptions of service quality. The norm in this model was equivalent to performance minus expectations. SERVQUAL was based on the idea that the norm may be a subjective interpretation of the client; since the service is not a tangible object; however, it is synonymous with the degree of expertise. Service quality analysis helps hospital management to allocate resources to improve efficiency in places that have a much greater effect on patient's perception of service quality (Cheng et al. 2000).

The pilot study was conducted to check the feasibility of SERVQUAL scale in the context of Punjab. Out of 22 statements of SERVQUAL, one statement of empathy i.e. operating hours as per the convenience of the patient was removed from the final questionnaire as most of the hospitals were operating twenty-four seven.

### 3.3 Research Gap

This paper is an effort to identify if the service quality gap exists between expectations and perception of patients availing services at private hospitals of Punjab. The hypothesis to verify the Gap in the Service Quality Delivered at private Hospitals was as follows:

Ho: There is no significant difference between the patient's expectations and the patient's perception regarding services provided at private hospitals at Punjab.

### 3.4 Demographic Characteristics of Respondent in Private hospital

Socio-demographic characteristics of respondents are demonstrated in the table 2. The majority of respondents from an urban area, 40.3 percent (n=302), took treatment from private hospitals and 9.7 percent respondents

(n=73) of private hospitals were from rural areas. Out of total respondents, 23.1 percent (n=173) were males and 26.9 percent (n=202) were females.

**Table 2: Socio-Demographic Characteristics of Respondents: Private Hospitals**

S. No.	Profile	Category	Frequency	Percentage of total
1	Locality	Urban	302	40.30
		Rural	73	9.70
		<b>Total</b>	<b>375</b>	<b>50.00</b>
2	Gender	Male	173	23.10
		Female	202	26.90
		<b>Total</b>	<b>375</b>	<b>50.00</b>
3	Marital Status	Single	71	9.50
		Married	220	29.30
		Divorced	30	4.00
		Widowed	54	7.20
		<b>Total</b>	<b>375</b>	<b>50.00</b>
4	Age (in years)	18-30	104	13.90
		31-40	73	9.70
		41-50	72	9.60
		51-60	62	8.30
		61 & above	64	8.50
		<b>Total</b>	<b>375</b>	<b>50.00</b>
5	Educational Qualification	Illiterate	12	1.60
		Matric	61	8.10
		Secondary	41	5.50
		Graduate	131	17.50
		Postgraduate & above	130	17.30
		<b>Total</b>	<b>375</b>	<b>50.00</b>
6	Occupation	Student	13	1.70
		Labour	11	1.50
		Farmer	6	0.80
		Business	63	8.40
		Employed in private job	114	15.20
		Employed in government job	77	10.30
		Housewife	85	11.30
		Unemployed	6	0.80
		<b>Total</b>	<b>375</b>	<b>50.00</b>
7	Caste	Schedule Caste	27	3.6
		Others (includes Muslims, Christians, Buddhists, Jains)	9	1.20
		OBC	81	10.80
		General	258	34.40
		<b>Total</b>	<b>375</b>	<b>50.0</b>
8	Family Income	₹0-₹20000	3	0.40
9	Health insured/free	₹20,001-₹40,000	1	0.10
		₹40,001-₹60,000	43	5.70
		₹60,001-₹80,000	230	30.70

medical aid/ special discounts	₹80,001 & above	98	13.10
	<b>Total</b>	<b>375</b>	<b>50.00</b>
	Yes	372	49.6
	No	3	0.4
	<b>Total</b>	<b>375</b>	<b>50.00</b>

**Source : Calculated on the basis of primary data collected for this study.**

Out of 375 respondents, 29.3 percent (n=220) were married, 9.5 percent (n=71) were single, 7.2 percent (n=54) were widowed and 4 percent (n=30) were divorced. With regard to respondents age group, 13.9 percent (n=104) were from age group 18-30, followed by 9.7 percent (n=73) from 31-40, 9.6 percent (n=72) from 41-50, 8.5 percent (n=64) from 61 & above and 8.3 percent (n=62) from 51-60 age group. With respect to educational qualification of respondents, 17.5 percent (n=131) were graduate, 17.3 percent (n=130) were postgraduate & above, 8.1 percent (n=61) were matric, 5.5 percent (n=41) were secondary qualified and 1.6 percent (n=12) were illiterate. Out of 375 respondents, 15.2 percent (n=114) were employed in private job, 11.3 percent (n=85) were housewife's, 10.3 percent (n=77) were employed in government job, 8.4 percent (n=63) were doing business, 1.7 percent (n=13) were students, 1.5 percent (n=11) were labors, 0.8 percent (n=6) were, doing farming and remaining 0.8 percent respondents who were unemployed went to private hospitals for treatment.

With regard to caste of respondents from, 34.4 percent (n=258) were from general caste, 10.8 percent (n=81) were from OBC, 3.6 percent (n=27) were from schedule caste and 1.2 percent (n=9) were from other caste. Regarding the frequency of respondents, 30.7 percent (n= 230) were from ₹ 60,001-₹80,000 income group, 13.1 percent (n=98) were from ₹ 80,001 & above, 5.7 percent (n=43) were from ₹40,001- ₹ 60,000 income group, 0.4 percent (n=3) were from ₹ 0- ₹ 20,000 income group and 0.10 percent (n=1) were from ₹ 20,000-₹ 40,000 income group. Out of all 49.6 percent (n=372) of respondents had health insured/ free medical aid/ special discount facility, and Remaining 0.4 percent (n=3) respondents were not having the above-stated facility.

**4. Results of paired t-test**

In this section, mean scores of the patient's perception and expectations related to services provided at private hospitals were evaluated and mean gap scores were calculated by subtracting expectations mean gap scores from patients' perception. Along with that, the significance of gap scores, calculated by using a paired t-test, was also discussed.

**Table 3: Mean Scores of Patient's Perceptions and Expectations for Private Hospitals**

Code	Statements	Mean Perceived Score	Mean Expectation Score
<b>Tangible</b>		3.47	4.25
<b>T1</b>	The hospitals have up-to-date & well-maintained equipments.	3.45	4.34
<b>T2</b>	Visually appealing physical facilities, e.g., Waiting area, rooms, etc.	3.53	4.23
<b>T3</b>	Doctors/staff well dressed and neat in appearance.	3.46	4.24
<b>T4</b>	Cleanliness & excellent hygiene standard	3.44	4.17
<b>Responsiveness</b>		4.17	3.99
<b>RP1</b>	Doctors/staff interested in solving patients' problems.	4.10	3.95
<b>RP2</b>	Patient communicated when and which services will be performed.	4.14	3.97
<b>RP3</b>	Prompt service provided to patients.	4.18	3.97
<b>RP4</b>	Hospital staff willing to help patients.	4.21	4.04
<b>RP5</b>	Staff response quickly to patients questions	4.21	3.99
<b>Reliability</b>		3.48	4.31
<b>RL1</b>	The hospital provides services on promised time.	3.46	4.19
<b>RL2</b>	The staff is dependable in handling patients.	3.59	4.34

<b>RL3</b>	Prompt service without an appointment.	3.39	4.35
<b>RL4</b>	Hospital doctors/ staff competent in providing accurate services	3.49	4.36
<b>Assurance</b>		3.37	4.29
<b>A1</b>	Doctors/staff infuse confidence and trust in the patient	3.44	4.24
<b>A2</b>	Patients feel secure in receiving medical care	3.37	4.35
<b>A3</b>	Doctors / staff to be polite, friendly, and courteous.	3.31	4.26
<b>A4</b>	Patients explained thoroughly his medical conditions	3.37	4.30
<b>Code</b>	<b>Statements</b>	<b>Mean Perceived Score</b>	<b>Mean Expectation Score</b>
<b>Empathy</b>		4.25	4.41
<b>E1</b>	Patient given individual attention	4.26	4.46
<b>E2</b>	Patients treated with a warm and caring attitude.	4.13	4.39
<b>E3</b>	Understand the specific needs of the patients.	4.12	4.36
<b>E4</b>	Doctors/staff have patient's best interests at heart.	4.48	4.44

**Source : Calculated on the basis of primary data collected for this study.**

The mean score of perception ranged from 4.48 to 3.31. The average mean score for patient's expectations was 3.748. Among five dimensions perception was higher for empathy (perceived mean score = 4.25), followed by responsiveness (mean score = 4.17), tangibility (mean score =3.47), reliability (mean score =3.48) and assurance (mean score =3.37).

Two among five statements with the highest perceived mean score were from empathy (E1 and E4) and three from responsiveness (RP3, RP4, and RP5) ranging from 4.48 (E4) to 4.18 (RP3) indicated that people received good services more than their expectation. On the contrary out of five statements from the lowest perceived mean score, three were from assurance (A1, A2, and A3) and two from reliability (RL1, RL2) ranging from 3.44 (A1) to 3.31 (A3) indicated that patient received less services than their expectations.

**4.1 Gap Score and Paired Sample T-Test Results**

The gap score was calculated for each statement and each quality dimension. In most of the previous researches conducted related to expectations and perception of service quality, it was stated that expectation scores were higher than perception scores (Brown et al., 1993). However, it was strange to notice here that (table 4), out of 21 statements, the gap score has been negative for just 15 statements (T1, T2, T3, T4, RL1, RL2, RL3, RL4, A1, A2, A3, A4, E1, E2, and E3) indicating dissatisfaction on the respondents' part. For the assurance dimension, the perceived mean score was 3.37, and the expected mean score was 4.29, with a mean service quality gap of -0.919.

**Table 4: Service Quality Gaps and Paired Sample T-Test Results for Private Hospitals**

Code	Statements	Gap Score	t-test	df	Sign (2- tailed)
<b>Tangible</b>		-0.775			
<b>T1</b>	The hospitals have up-to-date &well-maintained equipments.	-.893	-15.741	374	.000
<b>T2</b>	Visually appealing physical facilities, e.g., Waiting area, rooms, etc.	-.704	-13.558	374	.000
<b>T3</b>	Doctors/ staff well dressed and neat in appearance.	-.776	-14.061	374	.000
<b>T4</b>	Cleanliness & excellent hygiene standard	-.725	-12.998	374	.000
<b>Responsiveness</b>		0.181			
<b>RP1</b>	Doctors/staff interested in solving patients' problems.	.147	2.652	374	.008
<b>RP2</b>	Patient communicated when and which services will be performed.	.165	3.136	374	.002
<b>RP3</b>	Prompt service provided to patients.	.203	3.600	374	.000

<b>RP4</b>	Hospital staff willing to help patients.	.173	3.021	374	.003
<b>RP5</b>	Staff response quickly to patients questions	.213	3.894	374	.000
<b>Reliability</b>		-0.829			
<b>RL1</b>	The hospital provides services on promised time.	-.736	-11.516	374	.000
<b>RL2</b>	The staff is dependable in handling patients.	-.752	-13.047	374	.000
<b>RL3</b>	Prompt service without an appointment.	-.960	-14.722	374	.000
<b>RL4</b>	Hospital doctors/staff competent in providing accurate services	-.867	-14.887	374	.000
<b>Assurance</b>		-0.919			
<b>A1</b>	Doctors/staff infuse confidence and trust in the patient	-.803	-13.190	374	.000
<b>A2</b>	Patients feel secure in receiving medical care	-.984	-16.039	374	.000
<b>A3</b>	Doctors/staff to be polite, friendly, and courteous.	-.955	-16.418	374	.000
<b>Code</b>	<b>Statements</b>	<b>Gap Score</b>	<b>t-test</b>	<b>df</b>	<b>Sign (2- tailed)</b>
<b>A4</b>	Patients explained thoroughly his medical conditions	-.933	-14.701	374	.000
<b>Empathy</b>		-0.169			
<b>E1</b>	Patient given individual attention	-.205	-3.653	374	.000
<b>E2</b>	Patients treated with a warm and caring attitude.	-.259	-4.368	374	.000
<b>E3</b>	Understand the specific needs of the patients.	-.245	-4.353	374	.000
<b>E4</b>	Doctors/staff have patient's best interests at heart.	.035	.605	374	.546

**Source: Calculated on the basis of primary data collected for this study.**

This dimension was having the largest service quality gap indicating dissatisfaction of respondents with this dimension of SERVQUAL. Findings suggest that private hospitals of Punjab need to improve upon this aspect of service quality. The mean score of perception was 3.48, and for expectation were 4.13 with a mean service quality gap of -0.829 for reliability dimension. It indicates that patients were dissatisfied with this dimension of service quality also. Patients also expressed dissatisfaction with the tangibility dimension, as stated by mean service quality gap score -0.775 (perception 3.47 and expectation 4.25). This dimension is having the least average service quality gap score indicating that patients were more satisfied with this dimension as compared to reliability and assurance.

Patients had more perception score 4.25 that expectation scores 4.41 for the empathy dimension that resulted in the lowest negative gap score of -0.169. This indicated that patients were satisfied with the individual attention they were provided, the manner in which doctors/ staff understood their needs, and had the best interest for them at heart. However, one statement in this dimension had a positive mean gap score .035 for E4 but as the t-test result was insignificant for this statement; it indicates that a negative gap exists. For the remaining six statements, expectation scores were lower than perceived scores.

The six statements (RP1, RP2, RP3, RP4, RP5, and E4) had a positive mean gap score indicating the satisfaction of patients. A similar kind of finding was stated in another study conducted in the USA. There 10 out of 22 statements had expectation scores lower than perception (McGorry S.Y. 1999).

The overall mean service quality gap score was -0.502, stating that respondents were dissatisfied with the service quality received. The mean gap score was highest for A2 (mean gap score = -.984) and was lowest for E1 (mean gap score = -0.205). Therefore, it could be concluded that the service quality gap exists in private hospitals of Punjab. Patients also expressed satisfaction with the responsiveness dimension, as shown by the positive mean gap score, which was 0.180 (perception score =4. 17 and expectation score = 3.99). It indicates that patients were

satisfied with doctors/staff's helping attitude, providing them with prompt services, solving their problems quickly, and communicating them, which services will be preferred.

A paired t-test was applied to find if the difference between perception and expectations for each statement was statistically significant or not. Results indicate that this difference was significant for twenty statements ( $p < 0.05$ ) having a negative or positive service quality gap. Furthermore, for one statement (E4) result was insignificant as the p-value was higher than 0.05. About service quality dimensions, the gap was statistically significant for tangibility, responsiveness, reliability, and assurance ( $p$ -value  $< 0.05$ ). Also, for dimension responsiveness, a positive mean service quality gap exists, indicating the satisfaction of patients. Besides, for the statement E4 positive gap exists, but it was insignificant, which indicated that the patient's expectations were not met. Doctors and staff do not have the best interest of patients at heart.

## 5. Conclusion

The mean perception score ranged from 3.31 to 4.48 and result stated that it was highest for responsiveness dimension and lowest in case of assurance. It indicates that health care service takers expect hospitals to explain their medical condition to infuse more trust and confidence in them while they take services from private hospitals. On the other side, the expected mean score ranged from 3.95 to 4.46, with the highest score for empathy and lowest for the responsiveness dimension, which indicated that people who avail services from private hospitals have high expectations from doctors & staff. They expect them to provide services with the best interest at heart for patients, give individual attention to patients with warmth and care. They also expect them to provide accurate services with competency as per the specific need of patients. Results indicated that patients' perception as well as expectations were highest for responsiveness dimension with a positive mean gap score indicating that private hospitals were competent enough to meet patients' expectations and hospitals were willing to help patients, provide them with prompt service as, and when required. For the other four dimensions, results were negative, indicating a gap exists between the services provided at private hospitals, and the maximum gap exists in the assurance dimension.

However, private hospital patients seem to be satisfied with the responsiveness dimension of service quality as they provided services to patients as per their requirement. Results of the study also demonstrate that quality improvement efforts of private hospitals have to be more focused towards assurance dimension of service quality. Private Health care providers should have the knowledge, courtesy and ability to infuse trust and confidence in their patients. Hence, results states that if efforts would be put in to bring improvement in specifically pointed out areas, then health care service providers would be able to meet expectations of health care consumers. Furthermore, results of the study are guide towards the measures, which can help hospital management, doctors and staff in meeting patients' expectations. Health care service providers can work on the areas demonstrated in results, take measures to eliminate gaps and provide better health care services. It is required to revise the study related to the perception and expectations of patients for time to time, for identification and elimination the gaps in services provided at hospitals. Besides, for future research, more dimensions can be considered in the service quality scale.

## References

- [1] Anh, P. N. T., & Thuy, P. N. (2017). The effects of interaction behaviors of service frontliners on customer participation in the value co-creation: A study of health care service. *Service Business*, 11(2), 253-277.
- [2] Bhuyan, A. (2019). What Indian healthcare has looked like under five years of the Modi Govt. Retrieved from <https://thewire.in/health/india-healthcare-narendra-modi> accessed on 12/09/2019.
- [3] Brown, T.J., Churchill, G. & Peter, J.P. (1993). Improving the measure of service quality. *Journal of Retailing*, 69(1), 127-39.
- [4] Cheng Lim, P. & Tang, N. K. (2000). A study of patients' expectations and satisfaction in Singapore hospitals. *International journal of health care quality assurance*, 13(7), 290-299.
- [5] Choi, K.S., Cho, W. H., Lee, S., Lee, H. & Kim, C. (2004). The relationships among quality, value, satisfaction and behavioral intention in health care provider choice: A South Korean study. *Journal of Business Research*, 57(8), 913-921.
- [6] Dawn, A. G. & Lee, P. P. (2004). Patient expectations for medical and surgical care: A review of the literature and applications to ophthalmology. *Survey of ophthalmology*, 49(5), 513-524.
- [7] Firstpost (2019). World Health Day 2019: Challenges, Opportunities in India's \$81b Healthcare Industry. Retrieved from <https://www.firstpost.com/india/world-health-day-2019-challenges-opportunities-in-Indias-81b-healthcare-industry-3544745.html> accessed on 12/09/ 2019.
- [8] Government of India. (2014). Health in India (National Sample Survey 71th round). Retrieved from



- [http://mospi.nic.in/sites/default/files/publication\\_reports/nss\\_rep574.pdf](http://mospi.nic.in/sites/default/files/publication_reports/nss_rep574.pdf) accessed on 12/08/2019.
- [9] Hadley, J. & Cunningham, P. (2004). Availability of safety net providers and access to care of uninsured persons. *Health Services Research*, 39(5), 1527–1546.
- [10] IBEF. (2019). Healthcare industry in India, Indian healthcare sector, services. Retrieved from <https://www.ibef.org/industry/healthcare-india.aspx> accessed on 12/09/2019.
- [11] Kitapci, O., Akdogan, C., & Dortyol, I. T. (2014). The impact of service quality dimensions on patient satisfaction, repurchase intentions and word-of-mouth communication in the public healthcare industry. *Procedia-Social and Behavioral Sciences*, 148, 161-169.
- [12] Kucukarslan, S. N. & Nadkarni, A. (2008). Evaluating medication-related services in a hospital setting using the disconfirmation of expectations model of satisfaction. *Research in Social and Administrative Pharmacy*, 4(1), 12-22.
- [13] Lee, H., Delene, L. M., Bunda, M. A. & Kim, C. (2000). Methods of measuring health-care service quality. *Journal of Business Research*, 48(3), 233-246.
- [14] McGorry, S. Y. (1999). An investigation of expectations and perceptions of health-care services with a Latino population. *International Journal of Health Care Quality Assurance*, 12(5), 190-198.
- [15] Pakdil, F., & Aydın, O. (2007). Expectations and perceptions in airline services: An analysis using weighted SERVQUAL Scores. *Journal of Air Transport Management*. 13(4), 229-237.
- [16] Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). “SERVQUAL: A multiple-item scale for measuring consumer perception. *Journal of Retailing*, 64(1), 12-40.
- [17] Planning Commission of India. (2011). High level expert group report on universal health coverage for India. Retrieved from [http://planningcommission.nic.in/reports/genrep/repuhc\\_0812.pdf](http://planningcommission.nic.in/reports/genrep/repuhc_0812.pdf) accessed on 1/07/2019.
- [18] Pramanik, A. (2016). Patients’ perception of service quality of health care services in India: A comparative study on urban and rural hospitals. *Journal of Health Management*, 18(2), 205-217.
- [19] Rohini, R. & Mahadevappa, B. (2006). Service Quality in Bangalore Hospitals- An Empirical Study. *Journal of services Research*, 6(1), 141-150.
- [20] Sohail, M. S. (2003). Service quality in hospitals: More favourable than you might think *Managing Service Quality. An International Journal*.
- [21] Statistical Abstract of Punjab (2018) Retrieved from <http://www.esopb.gov.in/static/PDF/Abstract2018.pdf> accessed on July 25, 2019.
- [22] The Hindu Centre for Politics and Public Policy (2014). Retrieved from <https://thehinducentre.com/> accessed on 25/07/2019.
- [23] National Health Policy (2015). Retrieved from Draft National Health Policy 2015 ([nhp.gov.in](http://nhp.gov.in)) accessed on 21/07/2019.
- [24] Walters, D. & Jones, P. (2001). Value and value chains in healthcare: A quality management perspective. *The TQM Magazine*, 13(5), 319-335.
- [25] Youssef, F., Nel, D. & Bovaird, T. (1995). Service quality in NHS hospitals. *Journal of Management in Medicine*, 9(1), 66-74.
- [26] Zarei, A., Arab, M., Froushani, A. R., Rashidian, A., & Tabatabaei, S. M. G. (2012). Service quality of private hospitals: The Iranian patients' perspective. *BMC Health Services Research*, 12(1), 31. Retrieved from <http://doi.org/10.1186/1472-6963-12-31>.
- [27] Zeithaml, V. A. & Bitner, M. J. (1996). *Services Marketing*. Singapore, McGraw Hill.