

Assessing Voice of Customers (VoC) as a Tool for Improving Patient Care: A Case Study of a Tertiary Care Hospital in Mumbai City.

Kasturi Shukla¹, Sayali Shilewant², Hem Chandra³

¹MIT World Peace University, Survey No, 124, Paud Road, Kothrud, Pune- 411038, Maharashtra, India

²TATA Trusts, World Trade Center-1, 26th floor, Cuffe Parade, Mumbai- 400005, Maharashtra, India

³Hemwati Nandan Bahuguna Uttarakhand Medical Education University, Administrative Building, 4th floor Govt. Doon Medical College Campus, Dehradun, Patel Nagar, Dehradun-248001, Uttarakhand, India

Abstract

Aim:

Voice of Customers (VoC) is a more comprehensive construct of customer feedback. VoC includes preferences, opinions, positive/negative experiences and feedback from patients and relatives based on the services availed by them. Further, utility of VoC lies in internal customers (employees) being convinced about the value of VoC for organizational improvements. Though, the hospitals continue to collect VoC data, however, the structured system to share this feedback with employees rarely exist in organizations. The objective of this study was to analyze the VoC data for various departments of the hospital and evaluates the employee's perception and the challenges on utilizing the Voice of Customers for organizational improvements.

Material and Methods: VoC data was analysed for the 300 bed tertiary hospital in Mumbai. VoC questionnaire comprised of 27 questions on seven key indicators namely, quality of hospital setting, clinical services, nursing services, housekeeping, dietary services, discharge process and ancillary facilities and one open ended question on overall suggestions. VoC results were shared with the employees and their responses were noted for the utility of the VoC responses and the autonomy available with employees for implementing VoC.

Results:

VoC data of 929 patients was analysed. Time taken for admission and discharge process, explanation of diagnosis, efficiency of TPA, and ease of contacting the hospital was significantly associated with many baseline variables. The open ended question was filled up by 427 respondents and most of the responses were related to parking facilities, billing, admission and discharge process. 73% employees said that VoC data and feedbacks are not shared regularly with them. More than 80% employees felt they do not have the autonomy to implement VoC.

Conclusion:

VoC is an important tool for continuous quality improvement. Nevertheless, the more important issue is the acceptance by 'implementers' of VoC – The employees (internal customers) that VoC is valid, necessary and requires implementation for organizational improvement. A dichotomy between the VoC and employee's perception was evident in our study. The gap between VoC and employees – The 'Implementers' needs to be addressed by enhancing communication from both ends.

Key words:

Employees, Feedback, Hospital, Patient satisfaction, Voice of Customer (VoC).

Introduction

Voice of Customers (VoC) is a more comprehensive construct of customer feedback. Capturing Voice of

Address for correspondence

Dr. Kasturi Shukla, MIT World Peace University, Survey No, 124, Paud Road, Kothrud, Pune- 411038, Maharashtra, India
E-Mail: kasturiagnihotri@rediffmail.com

Received: 18.02.2020

Accepted: 26.04.2020

Customers (VoC) means understanding their preferences, opinions, positive/negative experiences and feedback from customers/relatives based on the services availed by them [1]. The VoC is an indicator of patient satisfaction which is not a recent concept. Patient satisfaction has been studied for last 30 years and the basis of these definitions dates back to theories introduced in 1980s [2]. These perspectives include the discrepancy and transgression theories, expectancy-value theory, determinants and components theory, multiple models

theory and healthcare quality theory. Patient satisfaction being the outcome variable it becomes a necessity to measure VoC as this is a prime construct of satisfaction. Healthcare is largely an experience and hence it is crucial for healthcare organizations to monitor the experiences they are delivering to their customers.

VoC may be evaluated through a feedback system, emails, social media or other platforms that connects business to patients. With the advent of social media and rise in awareness about patient's rights, patients have become more expressive when it comes to voicing themselves regarding their feedback, experiences and complaints. Studies from Indian hospitals have rarely reported VoC as a tool for improvement as literature search returns only some results, which are from other countries [3].

VoC describes how customers (or patients) value and regard their care and hence it must be, monitored continually and frequently. In today's competitive health care environment, VoC has become a necessity and thus, hospitals should focus on keeping the patient delighted by listening and responding to the VoC [4].

Another important concept in this context is 'Normative Legitimacy' – employee's belief that listening to patients is a worthwhile exercise [5]. Equally important to the external customers are the internal customers (employees) of any organization. Unless, employees are convinced of the utility and necessity of utilizing VoC, gathering feedback is a futile exercise. Though VoC is usually collected through feedback forms across various hospitals, the utility in terms of application of VoC to improve the services has been limited. Past studies have reported that three fourth organizations included in a survey reported that VoC/feedback data is not used to drive actions [1,5]. This is largely accounted to lack of autonomy at the level of involved staff, low readiness to change and poor belief amongst staff regarding 'Real' utility of the VoC. Hence, there is a strong chance that the feedback system may remain unutilized and VoC remains unheard and unutilized. Past studies have shown that organization's readiness to change and the autonomy with staff was lacking. The feedback or the VoC remains a mere formality which could otherwise be used as a strong tool to improve the system in an ongoing manner. Studies have proved that very little evidence is available to show that feedback is utilized to improve quality of care [6].

As consumers choose hotels based on their reputations for comfort, dining and other amenities, similarly, patients have several options for choosing or refusing a healthcare provider. In this age where VoC on social media reaches far and loud, hospitals cannot afford to fail in delivering best experiences to the patients [7,8].

The objective of this study was to analyze the VoC data for various departments of the hospital and evaluates the employee's perception and the challenges on utilizing the Voice of Customers for organizational improvements.

Material and Methods

Study Design and Setting

This cross sectional study conducted in a 350 bed tertiary care hospital in Mumbai analyses the patient's feedback through the Voice of Customer (VoC) questionnaire data for 8 months from November 2016 to June 2016. The study was approved by the Ethics Committee of the University.

Study Instrument

The VoC form with 27 questions focused on 7 key indicators for evaluating the quality of hospital setting, clinical services, nursing services, housekeeping, food, discharge process and ancillary facilities (like parking, canteen and lift). The scale used for the measurement of the feedback was a 3-point Like scale (1=least satisfied, 2=moderately satisfied, 3=extremely satisfied). One question was open ended asking the respondent for their suggestions regarding the facilities they felt needs improvement.

Study Subjects and Study Procedure

The VoC data of the relatives/ attendants of the patient was obtained by the hospital through VoC forms and emails. This is collected by hospital staff as a part of feedback during discharge from the hospital. This data from the hospital was provided to the authors for review and was analysed further. In case of any missing demographic detail, hospital records were referred. Forms with >5% missing data were discarded if the missing details could not be fetched.

Once the VoC data was analysed, these results were shared with 45 purposively selected employees from various departments including reception and billing (n=4), doctors (n=11), nurses (n=6), cafeteria (n=2), housekeeping (n=7), floor in-charges (n=5), laundry (n=3), hospital administration (n=4) and parking & security (n=3). Purposive sample was used to include equivalent number of employees across each category. After obtaining written informed consent, the employees were interviewed. The objective of the employee interview was to judge whether feedback appears valid to them and whether they feel that there is a need to change the system based on the feedback. Two factors were judged here: employee's perception regarding changes required in the organization based on VoC results

and sufficient autonomy at employee level to bring about the modifications/improvements. The results obtained were qualitative and are reported with counts and verbatim statements.

Data Analysis

The quantitative data was summarized using the measures of central tendency for continuous variables and frequency, mean and percentages for discrete variables. Cross tabulations were performed for Chi-Square test to evaluate the statistical differences across the baseline variables and the rankings. Only the results significant at $p\text{-value}<0.05$ have been reported in results. The responses to open ended question was coded using inductive coding and have been reported with frequencies. Employee's qualitative responses on VoC results were also inductively coded. We have quoted verbatim responses and coded results for qualitative analysis.

Results

Data of all 948 VoC forms was reviewed out of which 19 (2%) were discarded due to missing data that could not be retrieved from hospital records or by contacting the patient. Thus, a total of 929 forms were included for analysis. The baseline characteristics and categorization of the study subjects are given below in table 1.

Cross tabulations of VoC ranking for the 27 questions was performed with baseline variables for computing the Chi square. Chi square results revealed that VoC ranking for some questions significantly varied across certain baseline variables. Results in table 2 show the frequency of VoC ranking results across the different baseline variables. The statistically significant results of Chi square cross-tabs between VoC ranking and baseline variables are also reported in table 2.

Table 1: Baseline variables of the sample (n=929)

Details	Male (No. of cases)	Female (No. of cases)
Total Number of cases Taken for study	20.3 %	79.7 %
Left lobe dominance	15 %	7.3 %
Right lobe dominance	84.2 %	89.6 %
Unequivocal		13
Cold nodule	20	30
Hot nodule	4	3
Non-functioning thyroid lobes (Left)	-	5
Non – functioning thyroid lobes (right)	-	2
Less uptake	1	-
Thyroidectomy	-	1
Hemithyroidectomy	-	1
Hashimotos Syndrome		1
Faintly Visualized	2	1 (Right lobe)
Mass lesions on left thyroid lobe	1	-
Mass lesions on right thyroid lobe	1	-
Midline Thyroid	1	

Table 2: Variation of VoC responses across baseline variables and its association with baseline variables

Factors related to VoC	Baseline variable	Frequency of Ranking for VoC factors*			Chi Square Value (LR Value, p-Value)
		1	2	3	
Time taken for admission process	Age	1	2	3	18.255 (18.364, 0.001)
	0-18	8	40	84	
	19-39	25	34	111	
	40-59	27	46	171	
	≥60	62	64	257	
	Gender	1	2	3	17.061 (17.476, 0.000)
	Male	62	109	319	
	Female	36	100	303	
	Billing	1	2	3	32.926 (31.924, 0.000)
	Deluxe class	16	14	48	
First	54	61	273		
Second class/General ward	38	48	183		
Semi private	15	60	119		
Ease of contacting hospital	Billing	1	2	3	18.195 (13.305, 0.020)
	Deluxe class	7	10	61	
	First	8	55	325	
	Second class/General ward	6	48	215	
	Semi private	2	34	158	
Explanation of diagnosis by doctor	Length of Stay (LOS)	1	2	3	17.889 (11.447, 0.007)
	1 to 3	6	37	364	
	4 to 6	6	25	247	
	7 to 10	5	16	393	
	11 to 20	6	6	68	
	21 to 30	0	0	6	
≥31	1	0	3		
Explanation of procedure by doctor	Payment type	1	2	3	24.919 (9.137, 0.016)
	Corporate	2	14	75	
	IPF	0	1	14	
	Hospital Privilege Club members	1	0	1	
	Staff	0	3	18	
	TPA	5	28	233	
Self/out of pocket	12	67	455		
Explanation of medication by doctor/nurse	Payment type	1	2	3	20.753 (8.623, 0.023)
	Corporate	3	13	75	
	IPF	0	1	14	
	NPC	1	0	1	
	Staff	0	2	19	
	TPA	7	28	231	
Self	13	65	456		
Timeliness of service	Age	1	2	3	14.041 (13.075, 0.007)
	0-18	11	34	87	
	19-39	4	25	141	

	40-59	10	27	207	26.382 (19.920, 0.003)	
	≥60	17	59	307		
	Address	1	2	3		
	Mumbai	25	131	717		
	Other cities of Maharashtra	1	5	33		
	Out of Maharashtra	0	6	9		
	Out of India	0	0	2		
Functioning and maintenance of equipment/facilities	Age	1	2	3	9.397 (9.179, 0.04)	
	0-18	8	35	89		
	19-39	11	23	137		
	40-59	12	39	192		
	≥60	20	75	288		
Efficiency of TPA/Billing desk	Billing	1	2	3	22.254 (22.235, 0.004)	
	Deluxe class	13	18	47		
	First class	34	115	239		
	Second class/General ward	35	57	177		
	Semi private	13	42	139		
Time taken for discharge	Age	1	2	3	9.743 (10.555, 0.045)	
	0-18	15	33	84		
	19-39	25	53	93		
	40-59	46	54	143		
	≥60	59	117	207		
	Gender	1	2	3	6.108 (6.158, 0.047)	
	Male	112	109	269		
	Female	72	108	259		
		Billing	1	2	3	29.797 (33.115, 0.000)
		Deluxe class	23	10	45	
		First class	89	98	201	
		Second class/General ward	55	58	156	
		Semi private	17	51	126	
	Cafeteria/Public dining option	Billing	1	2	3	38.172 (40.977, 0.000)
Deluxe class		14	17	47		
First class		44	121	223		
Second class/General ward		30	83	156		
Semi private		5	93	96		
*Frequency of Ranking: 1=least satisfied, 2=moderately satisfied, 3=extremely satisfied						

As is evident from the results *time taken for admission process* was significantly related to age, gender and billing category. Across all age groups satisfaction was high for this parameter. Gender wise variation was uniform as for both males and females, majority of the responders were moderately and extremely satisfied. Across the billing category some variation is evident. Satisfaction with the *efficiency of TPA desk, cafeteria/public dining, and ease of contacting the hospital* varied significantly only with

billing category probably because patients from different categories have different expectations.

Satisfaction with *explanation of diagnosis by doctor* significantly varied only across LOS particularly for 1-10 days LOS patients. This may be because they have maximum queries for diagnosis in contrast to patients with higher LOS who are probably better aware about their illness. This was the only significant result for LOS. On the contrary, *explanation of procedure by doctor* and

explanation of medication by doctor/nurse was significantly related only with payment type reasons for which cannot be explained based on current data. *Timeliness of services* varied significantly across age and place of residence which is explainable as people coming from far have higher expectations in this regard. Local people and those in higher age groups were more satisfied. Satisfaction with *functioning and maintenance of equipment/facilities* was significantly related to age with those in higher age groups being more satisfied. *Time taken for discharge* satisfaction varied significantly with age, gender and billing category.

Suggestions Extracted from VoC and Employee's Response

Out of the 929 forms received, the open-ended question

on suggestions and comments was answered by 427 (45.9%) respondents. Out of these 427 responses, 103 (24.12%) were the positive responses in appreciation of the staff, nurses and the doctors with no suggestions. Remaining 324 (75.88%) responses with comments and suggestions were coded and analysed across the department concerned, relevant process and the specific suggestion/comment. The results are as given in table 3.

As can be seen from the results, majority of the suggestions were related to parking facilities, billing, admission and discharge process. These are the commonest 'pain areas' in hospitals as patients are most affected by the delays in these steps.

Results given in table 2 and table 3 were shared with a mixed group of staff members (n=45) selected

Table 3: Coded suggestions extracted from VoC (n=324) and Employee's Response (n=45)

Sr. No.	Process	Department	Comment / Suggestion by patients	Frequency (%)*	Employee's response for organizational changes required	
					Yes (%)	No (%)
1	Admission process	IPD and Registration	Speed up the admission process	74 (22.84%)	10 (22.22)	35 (77.78)
2	Final bill generation and discharge	Billing and Discharge	Billing and discharge process needs promptness	90 (27.78%)	8 (17.78)	37 (82.22)
3	-	Infrastructure	Facilities in waiting lounge for seating, drinking water, washrooms and so on are inadequate.	16 (4.94%)	13 (28.89)	32 (71.11)
4	Declaration of charges and procedures	Billing	Billing process seems to be concealed and non-transparent	37 (11.42%)	9 (20.00)	36 (80.00)
5	Interaction with staff	Human Resources	Behaviour of staff needs improvement with a more empathetic approach	21 (6.48%)	7 (15.56)	38 (84.44)
6	Maintaining cleanliness	Housekeeping	Cleanliness and hygiene needs improvement	48 (14.81%)	12 (26.67)	33 (73.33)
7	Vehicle parking	Campus administration	Parking facilities are inadequate	95 (29.32%)	18 (40.00)	27 (60.00)
8	Food services	Cafeteria	Improvement desired for better hygiene of surroundings and quality of food.	29 (8.95%)	12 (26.67)	33 (73.33)
9	Response time	Human Resources	Response time of staff is slow	38 (11.73%)	8 (17.78)	37 (82.22)
10	Patients' uniform	Linen and laundry	Uniform provided to patients are uncomfortable and unclean.	10 (3.09%)	13 (28.89)	32 (71.11)

* Frequencies are overlapping due to multiple suggestions. Hence total count unequal to 'n'.

purposely from various departments. The staff members were requested to read the results of VoC and respond whether they feel the feedback requires to be implemented or if there is a need to bring about a change in the organization / system.

The last column in table 3 indicates the response of staff members, which shows that majority of staff members, did not agree to the fact that modifications are required or there is a problem with the system. One of the exceptions was campus administration and parking where employees reported that there is a need for organizational improvement. The most striking finding was that 73% employees said that VoC data and feedbacks are not shared regularly with employees. Remaining employees reported that they were aware about the past feedbacks as department heads pass on the relevant instructions based on the VoC data. Thus, there is no structured feedback sharing system to keep the internal stakeholders informed.

Some of the verbatim responses are reported below

Regarding dissatisfaction with admission, discharge and billing process, staff at reception and billing said, *"There is a huge work load. Patients do not understand our situation. Everybody wants a quick process but we have our limitations"*. Similar responses were obtained from HR department when the feedback of rude behaviour and slow response time was shared with them. One on-duty nurse said *"Every patient and their relative want personal attention. We are doing our best but in peak hours like morning and evening it (situation) is very stressful. Too little time and too many patients to take care of"*.

Further the employees were interviewed for autonomy available at their levels to bring about the change. Out of the 45 employees interviewed, 27 (60%) said that due to high inter-dependencies across different departments they are unable to bring about required changes even when they feel it is required. 12 (26.6%) employees felt that they do not have the required autonomy but they try to find out some mechanism to help the patient on their own. Like one staff nurse shared, *"When a patient complains for slow response time or cleanliness related issues, we (nurses and staff) try to explain to the patient the reason for delay or we call the housekeeping person and have the place cleaned up. Sometimes out of the way counselling may be required even when we do not have the autonomy to change the system."*In regard to almost all the feedbacks, hospital employees felt that demands from the patients are way too high and due to high work load on staff it is difficult to satisfy each and every individual.

Discussion

The present study was done with the objective of analysing the Voice of Customers (VoC) to identify the strategies for process improvement in the hospital and evaluating the same from employee's perspective if VoC can be utilized to bring about improvements in organizational functioning.

In our study, *time taken for admission process* was significantly related to age, gender and billing category. Across all the age groups, satisfaction was high for this parameter. Gender wise variation was uniform and majority of the responders were moderately and extremely satisfied in contrast to other studies that have reported men to have a more positive feedback for services [9]. Across the billing category some variation is evident. Satisfaction with the *efficiency of TPA desk, cafeteria/public dining, and ease of contacting the hospital* varied significantly only with billing category probably because patients from different billing categories have different expectations. Only 9% of the patients in our study reported that improvements are desirable related to dietary services which is corroborated by previous studies that have reported high correlation between dissatisfaction with dietary services and overall negative patient satisfaction [2,10]. This could be because people from different locations demand a variety of food, which does not match the advice by dietician.

Satisfaction with *explanation of diagnosis by doctor* significantly varied only across LOS particularly for 1-10 days LOS patients. This may be because these patients have maximum queries for diagnosis in contrast to patients with higher LOS as latter are probably better aware about their illness. This was the only significant result for LOS. On the contrary, *explanation of procedure by doctor, and explanation of medication by doctor/nurse* was significantly related only with payment type reasons for which cannot be explained based on current data. We received multiple opinions on the issue related to the behaviour of staff. On one hand where the relatives of patients emphasized that response time of staff is high and behaviour is rude rather than empathetic, employees were not in agreement with this finding. Hence there was a gap in understanding from both ends. Interpersonal skills, humanitarian staff, informing the patient about treatment plans are known factors in enhancing patient satisfaction [11-13]. Furthermore, behaviour and soft skills of physician and nursing staff are most influential in determining patient satisfaction [11,12,14]. Hence, VoC in such issues cannot be ignored. On the contrary doctors and nurses face challenges in explaining the procedure and diagnosis to patients due to multiple barriers [15,16] like simplifying medical language, linguistic issues, and

fear of negative psychological impact on patients. Striking this balance is a tricky task. Past studies have also reported that majority of the doctors believed that they communicated satisfactorily with their patients whereas, patients reported unsatisfactory communication with their doctors. This has an impact on the Length of Stay of the patients. It has been reported that a satisfactory communication between doctor and patients helps relieve the patient's anxiety and promotes better recovery. This also leads to job satisfaction, less work related stress and reduced burnouts in the Doctors.

We found that satisfaction with *time taken for discharge and admission* process varied significantly with age, gender and billing category. Satisfaction with *timeliness of service* varied significantly across age and place of residence, which is explainable as people coming from far have higher expectations in this regard. Existing studies also support this observation that out of all the factors that are crucial to a patient, lesser the patient waits, happier the patient is [17,19]. Satisfaction with *functioning and maintenance of equipment/facilities* was significantly related to age with those in higher age groups being more satisfied.

Out of the 427 responses received for the open-ended questions, 103 (24.12%) were the positive responses in appreciation of the staff, nurses and the doctors with no suggestions. Majority of the suggestions were related to parking facilities, billing, admission and discharge process. These are the commonest 'pain areas' in hospitals as patients are most affected by delays at these steps which is corroborated by past studies that have reported the necessity of proper parking facilities for the patient and the attendant's vehicles [20]. In relation to the billing department, previous studies also found that for high patient satisfaction there is a need to improve the billing process as 81% participants of that study had reported anger or frustration on issues related to medical bills [21].

Similar to our results, past studies have reported that patients were dissatisfied with the housekeeping services [10]. The factors for dissatisfaction with housekeeping were delays and poor maintenance of facilities that leads to delayed responses [21,22]. Moreover, it is seen to be varying with age as the geriatric and paediatric age group tend to have sanitation emergencies.

Similar to an Italian study which found that there was no structured system for sharing the VoC with employees, we also found that the VoC report was not shared with majority of the employees [23]. When the internal stakeholders are uninformed, it is almost impossible to

bring about any improvements on the VoC. Adding to the complication is the fact that, majority of the employees did not agree to the fact that VoC should be a basis for modifications or there is a problem with the system. A previous study has labelled this as 'Normative legitimacy' – a belief that listening to patients is a worthwhile exercise [5]. This is very essential so that the ultimate 'Implementers' are aware about the feedback. Corroborating a previous study where employees reported limited autonomy to utilize Voice of Customers [5], majority of the employees in our study also felt that they have poor or no autonomy to bring about a change in organizational system. Normative legitimacy should be high to utilize VoC as a tool to bring about a change in the system, which was poor in our study.

Our study has several strengths as we have reported VoC for a large sample size and also evaluated the perception of employees on the VoC. The limitations are that we did not collect quantitative data for employee's response. Nevertheless, this adds to the strength of the study, as qualitative responses are known to bring out a more in depth insight of the thoughts and opinions.

VoC is a rather newer concept as previous studies have focused on patient satisfaction as a tool for better clinical outcomes [24]. The analysis of VOC is important as it helps in assessing both the negative and positive feedbacks from the patients. This assists to locate and solve problems that can improve the quality of care [25]. It helps in formulating new strategies to give maximum satisfaction out of the services provided.

Conclusion

VoC is an important tool for continuous quality improvement. Nevertheless, the more important issue is the acceptance by 'Implementers' of VoC – the employees (internal customers) that VoC is valid, necessary and requires implementation for organizational improvement. Activities and issues where there is interdependency to bring about a change, sufficient autonomy is required without which VoC is again a redundant activity. A dichotomy between the VoC and employee's perception was evident. In addition to collecting VoC data regularly, employees must be involved in the process of review of VoC to understand their perceptions and review the challenges at their end. The gap between VoC and employees – the 'Implementers' needs to be addressed by enhancing communication from both ends. Improvement in service quality cannot be achieved unless Voice of Customers – both internal and external are heard.

Conflict of interest:	All authors declare no COI
Ethics:	There is no ethical violation as it is based on voluntary anonymous interviews
Funding:	No external funding
Guarantor:	Dr. Kasturi Shukla will act as guarantor of this article on behalf of all co-authors.

References

- Hinshaw M. The real value in Voice of the Customer: The Customer Experience. Available from: <http://www.cmo.com/opinion/articles/2016/3/29/the-real-value-in-voice-of-the-customer-the-customer-experience.html#gs.5FIFmgk>. Accessed on: Aug,5,2017
- Makarem J, Larijani B, Joodaki K, Ghaderi S, Nayeri F, Mohammad M. Patients' satisfaction with inpatient services provided in hospitals affiliated to Tehran University of Medical Sciences, Iran, during 2011-2013. *Journal of Medical Ethics and History of Medicine*. 2016;9:6.
- Aghlmand S, Lameei A, Small R. A hands-on experience of the voice of customer analysis in maternity care from Iran. *International Journal of Health Care Quality Assurance* 2010;23(2):153-70.
- Jenkinson C, Coulter A, Bruster S, Richards N, Chandola T. Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care. *Quality & Safety in Health Care* 2002;11(4):335-9.
- Sheard L, Marsh C, O'Hara J, Armitage G, Wright J, Lawton R. The Patient Feedback Response Framework e Understanding why UK hospital staff find it difficult to make improvements based on patient feedback: A qualitative study. *Social Science & Medicine* 2017;178:19-27.
- Coulter A, Locock L, Ziebland S, Calabrese J. Collecting data on patient experience is not enough: they must be used to improve care. *BMJ* 2014 Mar 26;348:g2225.
- Health System Improvement. Measuring Health Care Quality: An Overview of Quality Measures. Issue brief/May2004). Available from: http://familiesusa.org/sites/default/files/product_documents/HSI%20Quality%20Measurement_Brief_final_web.pdf. Accessed on: March, 21, 2017.
- Boulton C. How a hospital CIO turns patient feedback into healthy outcomes? Available from: <http://www.cio.com/article/3024299/healthcare/how-a-hospital-cio-turns-patient-feedback-into-healthy-outcomes.html>. Accessed on: March, 21, 2017.
- Elliott MN, Lehrman WG, Beckett MK, Goldstein E, Hambarsoomian K, Giordano LA. Gender Differences in Patients' Perceptions of Inpatient Care. *Health Services Research*. 2012 Aug; 47(4): 1482–1501.
- Prakash B. Patient satisfaction. *Journal of Cutaneous and Aesthetic Surgery*. 2010;3(3):151-5.
- Shrivastava SR, Shrivastava PS, Ramasamy J. Exploring the Dimensions of Doctor-Patient Relationship in Clinical Practice in Hospital Settings. *International Journal of Health Policy and Management* 2014;2(4):159-160.
- Thompson DA, Yarnold PR, Williams DR, Adams SL. (1996) Effects of Actual Waiting Time, Perceived Waiting Time, Information Delivery, and Expressive Quality on Patient Satisfaction in the Emergency Department. *Annals of Emergency Medicine* 1996;28(6): 657-665.
- Yarnold PR, Michelson EA, Thompson DA, Adams SL. Predicting Patient Satisfaction: A Study of Two Emergency Departments. *Journal of Behavioral Medicine* 1998, 21(6): 545-563.
- Ammo MA, Abu-Shaheen AK, Kobrosly S, Al-Tannir MA. Determinants of Patient Satisfaction at Tertiary Care Centers in Lebanon. *Open Journal of Nursing* 2014;4(13): 939-946.
- Williams S, Weinman J, Dale J. Doctor-patient communication and patient satisfaction: a review. *Family Practice* 1998;15(5):480-492.
- Sharma A. Doctor-patient communication. *Patient Education and Counseling*. 1998;34:S72.
- Booth AJ, Harrison CJ, Gardener GJ, Gray AJ. Waiting times and patient satisfaction in the accident and emergency department. *Archives of Emergency Medicine* 1992; 9(2):162-168.
- Bursch B, Beezy J, Shaw R. (1993) Emergency department satisfaction: what matters most? *Annals of Emergency Medicine* 1993;22(3):586-591.
- Little NE. Image of the Emergency Physician. In: Henry, G.L., Ed., *Emergency Medicine Risk Management*. American College of Emergency Physicians 1991:11-16.
- DiMatteo MR, Hays R. The significance of patients' perceptions of physician conduct: a study of patient satisfaction in a family practice center. *Journal of Community Health* 1980;6(1):18-34.
- Mishra PH, Mishra T. Study of patient satisfaction at a super specialty tertiary care hospital. *Indian Journal of Clinical Practice* 2014;25(7):625-634.
- Asl IM, Iezadi S, Behbahani AA, Bonab MR. The Association Between Management of the Board of Trustees and Its Effectiveness at Hospitals in Tabriz; 2011 to 2013. *Iranian Red Crescent Medical Journal*. 2015;17(6): e28265.
- Murante AM, Vainieri M, Rojas D, Nuti S. Does feedback influence patient – professional communication? Empirical evidence from Italy. *Health Policy* 2014;116(2-3): 273–280.
- Bot AG, Bossen JK, Herndon JH, Ruchelsman DE, Ring D, Vranceanu AM. Informed Shared Decision-Making and Patient Satisfaction. *Psychosomatics* 2014 Nov-Dec;55(6):586-94.
- Naidu A. Factors Affecting Patient Satisfaction and Healthcare Quality. *International Journal of Health Care Quality Assurance* 2009;22(4):366-381.

