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INPATIENT SATISFACTION AND PATIENT EXPERIENCE IN KMC HOSPITAL OF MANGALORE CITY, KARNATAKA

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ABSTRACT

Now a day's patient satisfaction is the crux of measuring service quality at hospitals. To enhance the patients overall satisfaction, increase patients loyalty and to give them a superlative experiences, measuring patients satisfaction is inevitable. The present study focuses on in-patients satisfaction and their experience during their stay in KMC private hospital at Mangalore city. Along with that to deduce certain conclusions chi-square test, Mean Score analysis,Fish bone analysis and Factor analysis were used. The patients experience were measured using a 5 point likert scale and also by interacting with the inpatients to be more clear about the difficulties they faced during their stay. The study revealed a mean score of 3.98 out of 5 for overall satisfaction: the influence of admission procedure, insurance claim and discharge procedure considerably reduced the overall satisfaction scores. The respondents are satisfied with the quality of other service parameters like reception, doctor's care, laboratory services etc.

Keywords: Inpatient satisfaction, Fish bone analysis, Patient experience, Service quality, Private hospital

Introduction

In the present era health care is gaining a lot of momentum due to globalization, aging population and unrestricted access to global health care services. The beneficial aspects are

undoubtedly increasing but at the same time health care is becoming more complex in nature. Every country worldwide which ever economic systems they are into, the health care systems serves as a barometer of their economic activity. Today we find many countries coming up with well-structured health care policies as some undesirable practices have crept into the system. We find a lot of lobbying when it comes to the patent rights, where many super giant pharmaceutical companies aren't compromising on the cost factor of the medicines which they invent. Of course we cannot deny the fact that thousands of dollars are invested by the pharmaceutical companies in the Research and developmental programmes. Thecompanies look it as a lucrative arena to recover the cost within a reasonable period of time. Such measures are taxing the public; their hard earned money goes into clearing hefty hospital bills. Here the issue is not only the cost factor;are the patients getting the right amount of satisfaction after shelling out amount in lakhs for their treatment? The answer depends on manyfactors;hence taking a holistic approach to patient satisfaction becomes indispensable.

With this background the present study is aimed at analyzing in-patient satisfaction and patient experience at KMChospital in Mangalore city. In-patients were selected as they are referred to fairly good number of departments at hospital starting from reception till discharge proceedings. This lot was selected as they were admitted to the hospitals for treating different ailments. They can reflect the true service quality as they stay in hospital for a definite period of time.

The hospitals while offering services see do that the cost per patient per bed are kept minimal. At the same time the quality of services cannot be compromised. Hence it was thought crucial to take up the present study in Mangalore which has a good number of reputed hospitals especially KMC.

Literature review

OnyekaUcheOfili (2014) pointed out that deciding the right research methods is important in measuring patient satisfaction. He pointed out qualitative research method as an effective and efficient approach in medical care research. The quantitative research method should be used to complement qualitative research methods which are vital in measuring customer satisfaction in medical care.

According to LigaSurydana (2017), service quality can improve customer value and customer value significantly influences customer satisfaction. The study concludes that hospital should

provide quality health care services which will increase customer value as well as the implication for patient satisfaction.

In the study conducted by Dhyana Sharon Ross et al (2016) both gender and age has positive significant relationship with the variable of patient experiences such as information and education, emotional support and respect for patient preferences. Based on the results, the hospital administrators are very much encouraged to give importance for patient's preferences and physical comfort.

An empirical study on impacts of service quality dimensions on patient satisfaction on private hospitals in Nepal by Ramesh Neupane et al (2017) where the research was conducted through influence of positivism philosophy and deductive approach, overall patient satisfaction had a mean score of 4.06 out of 5. Further the evaluation of inter-correlation between the factors of service quality and patient satisfaction showed that each dimension of service quality is positively correlated with patient satisfaction.

The factors determining in-patient and out -patient satisfaction are not completely different. In a study on out-patients in a hospital in Bhopal by Sheloj Joshi (2017) the patients had good satisfaction from proper ventilation, nursing care, doctor's care and communication skill of pharmacists. However they expressed dissatisfaction from diagnostic space and the number of doctors in the OPD.

Objectives of the study

1. To evaluate critically in-patient satisfaction based on various parameters.
2. To assess in-patients experience in the department in which they were admitted and referred to.

Research design

Descriptive research design is used for the present study. The sample size of 150 was determined by using a sample size calculator keeping the confidence level at 95%. The primary data was collected through a well-structured questionnaire of 30 questions. Simple random sampling was adopted. The questionnaires were administered to those respondents who were admitted to the hospitalduring the period of study.

Tools for analysis

1. **Mean score analysis**

Mean score analysis was calculated for the given parameters on a 5-point Likert scale. The respondents were asked to rate the services of various departments with value 5 signifying excellent services and the value 1 signifying needs improvement.

2. **Reliability analysis**

To test the reliability of the items on the scale before using the data for further processing, a reliability analysis run in SPSS indicated a Cronbach's Alpha value of 0.849, Cronbach's Alpha based on standardized items was 0.819.

3. **Fish bone analysis**

By interaction most of the in-patients felt the waiting time for doctor's consultation during first time visit or during review checkup tested their patience. The attenders took lot of time in bringing the files, doctors had an emergency, patient files were missing during review checkup etc. Fish bone analysis revealed the root cause of how equipment, environment, people and method were contributing to long waiting time.

4. **Chi-square test**

Ho: Day and night shifts of the nurses has no significant influence on nursing care

Ho: Lifestyle has no significant impact on patient's health conditions.

5. **Factor analysis**

Factor analysis is a multivariate technique also known as data deduction. This technique was employed to find out the variables which have the highest influence on patient satisfaction.

ANALYSIS AND INTERPRETATION

Table 1:Demographic profile of In-patients

SI.No	Demographic Variables	No. of respondents (n=150)	Percentage(%)
1.	**Gender**		
	Male	62	41.3%
	Female	88	58.7%
2.	**Age**		
	Less than 20	21	14%
	20-30	38	25.3%
	30-40	44	29.3%
	Above 40	47	31.3%
3.	**Marital Status**		
	Married	97	64.7%
	Unmarried	53	35.3%
4.	**Annual Income**		
	Below 50,000	20	13.35%
	50,000-1,00,000	13	8.67%
	1,00,000-1,50,000	46	30.67%
	1,50,000 and above	71	47.33%
5.	**Occupation of the respondents**		
	Student	30	20%
	Professional	48	32%
	Retired	40	26.67%
	Homemaker	18	12%
	Others	14	9.33%

The demographic profile of the respondents shows that even respondents earning less than 50,000 per annum also preferred KMC to other hospitals.

1. Mean score analysis

The respondents were asked to rate on a 5-point likert scale the services of various departments which was applicable for them during their stay as in-patients. Due care was

taken while calculating mean score as some departments were not applicable to some of the in-patients.

Table II. Mean score for the given service parameters

Particulars	Mean score	SD	Ranking
Medical Care Doctors	4.31	0.827	1
Nursing Care	4.29	0.824	2
Reception	4.21	0.619	3
Cardiology	4.18	0.875	4
Casualty	4.15	0.915	5
House Keeping	4.11	0.973	6
Pharmacy	4.09	0.874	7
Radiology	4.07	0.988	8
Maintenance	4.05	0.965	9
Laboratory	4.01	1.03	10
Security Service	3.74	1.12	11
Help Desk	3.34	1.98	12
Counseling	3.32	1.908	13
Discharge Proceedings	3.29	1.961	14
Canteen Service	3.27	1.37	15
Physiotherapy	3.11	1.871	16
Insurance Department	2.98	1.94	17

The mean score analysis revealed that in-patients were not happy with the insurance department, canteen services, Help desk and Discharge proceedings. Even though nursing care has good ratings the in-patients feel that the nurses are experiencing a lot of pressure and sometimes they fail to administer medication on time Inspite of repeated reminders.

The knowledge of insurance staffs regarding the various insurance schemes floated by the state or the central governments is very poor. The in-patients are not happy with the discharge proceedings especially when it involves insurance claims which sometimes gets rejected and has to be reconsidered again with another report from the concerned doctor. The overall stay at the hospitals is pleasant (mean score 3.98) still the respondents agree that it's not a home away from home.

2. Chi-square test

Ho: Day and night shifts of the nurses has no significant influence on nursing care

At 2 degree of freedom the calculated value of chi-square (13.06) is greater than the table value (5.99) at 5% level of significance (p value=0.02). Hence null hypothesis is rejected. Thus we can conclude that shifts of nurses have significant influence on nursing care.

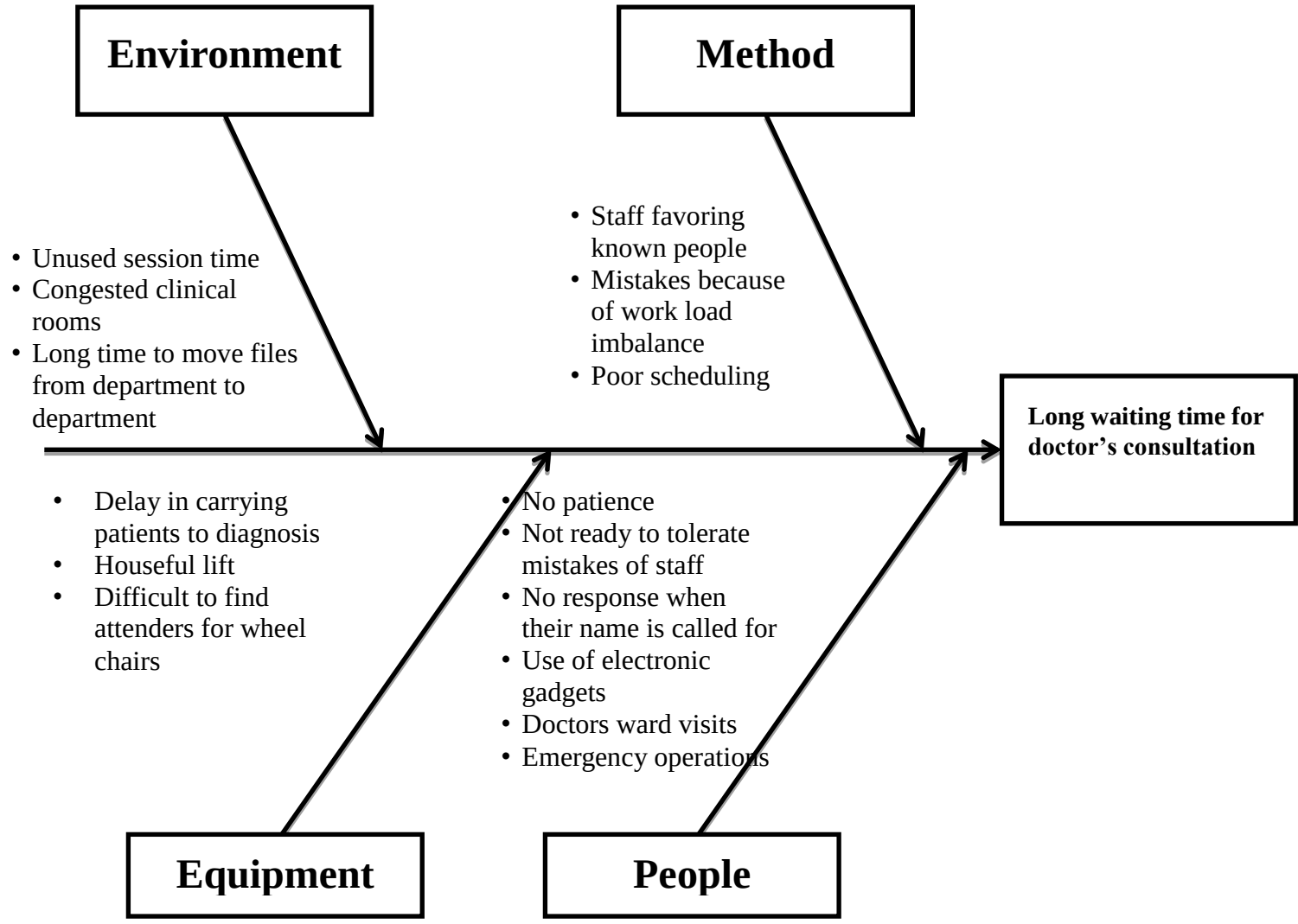
Ho: Lifestyle has no significant impact on patient's health conditions

The p-value yielded is 0.0121 at 5% level of significance, hence null hypothesis is rejected and alternative hypothesis is accepted which states lifestyle has significant impact on patient's health conditions.

3. Fish bone analysis

With the increase in the waiting time to consult the doctors during the first time visit or during review checkup, where most of the patients expressed their dissatisfaction a fish bone analysis weredeveloped after interacting with in-patients. The analysis itself shows in details how because of interaction of contributing factors like Environment, Method, Equipment and People there resulted a long waiting time for doctors consultation either during first time visit or during review check-up.

Figure 1: Fish bone analysis



4. Factor analysis

The respondents were given 17 parameters to evaluate patient satisfaction to be rated on a 5 point likert scale. Factor analysis was carried out to find which variables have major influence on patient satisfaction. The variables used for calculation were services of medical doctors, Nursing care, services of reception, services of Casualty, services of Pharmacy,

services of insurance staff, services of physiotherapy, services of dietician, services of maintenance department, care from ICU/CTU/PICU/NICU/LT etc,first the hypothesis was set as follows

Ho: The factor analysis is not valid

Ha: The factor analysis is valid.

To check the validity of factor analysis KMO and Bartlett's test was conducted using SPSS. The Kaiser-Meyer-Olkin Measure of sampling adequacy was 0.814. Under Bartlett's test of sphericity(Approx.chi-square 90.367, df=45, sig=0.000). The significance is less than the assumed value of 0.05. Hence we reject the null hypothesis and conclude that the factor analysis is valid. The KMO coefficient is to cross check Barlett's test. Here KMO value of 0.814 is more than 0.5 so we agree with Barlett's test that the factor analysis is valid.

Table III. Table showing total variance

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.186	41.858	41.858	3.894	38.943	38.943
2	2.754	27.541	69.399	3.046	30.457	69.399
3	.711	7.105	76.505			
4	.565	5.650	82.155			
5	.493	4.929	87.084			
6	.375	3.752	90.836			
7	.363	3.629	94.465			
8	.293	2.929	97.394			
9	.167	1.666	99.060			
10	.094	.940	100.000			

Extraction Method: Principal Component Analysis.

The first two components showa cumulative variance of 69.39%. The components are services of medical doctors and nursing care. The cut-off of Eigen values set to 1.And when we look at the rotated component matrix services of medical doctors has greatest factor loading of 0.957 followed by nursing care which has a factor loading of 0.823. Thus the factor analysis reveals that the services of medical doctors and nursing care have highest impact on patient satisfaction.

Results and discussions

Apart from mean score and fish bone analysis the assessment were into some other parameters deemed to be important in analyzing the service quality of the hospitals.

1. Admission procedure

65.33% of the in-patients experienced a situation where they don't get the desired rooms in the beginning which falls within their budget limit like semi private or two sharing. This sometimes pushes them to opt for single delux room or special A/c rooms. One excellent observation of the patients is that as the rooms get more sophisticated the treatment charges also increases.

2. Frequency of nurse visit per day

54% of the respondents opine that frequency of nurse's visit was 4-5 times per day. 30% agree that it was just 2-3 times based on the heath condition of the patient admitted. The in-patients also agree that the frequency of visit drops to 2-3 times only in the case where the in-patients have recovered 90%.

3. Treatment procedure explained to the care taker of the respondents.

Nearly 23.33% of respondents feel that the treatment procedure should have been explained in more simple terms rather than using sophisticated medical terms which they find it difficult to follow.

4.Obtaining lab reports

38% of respondents received the lab reports in 1-2 hours, 32% of respondents in 2-3 hours and the time duration was more than 3 hours, for 30%of the respondents. The duration of the reports depends on the test as prescribed by the doctors.

5. Visiting hours

91.33% of the respondents are happy with the way the vising hours have been scheduled. The rest of the respondents want the visiting hours to be more flexible.

6. Discharge procedure

43.33% of the respondents opine that the discharge procedures are cumbersome especially when it involves insurance claims. Discharge gets delayed when the insurance

companies seeks further reports or they reject the claim citing pre-existing diseases as reasons which the in-patients are not aware off. 49.33% of respondents agree that the time taken to prepare discharge summary can extend up to 1day. Minimum discharge time taken in all the were 2-3 hours and the maximum time taken was 1 day. Again 16.67%of the respondents have visited the hospitals again to get the necessary reports to claim for reimbursement from the insurance companies which is tiresome.

During the study the following observations were also made.

1. Also it was surprising to know 12% of the in-patients opted not to subscribe any health insurance plans since they had some bitter experience in the past. When the discussion went deep down finally they agreed to opt for an insurance plan at least after their marriage.
2. From among 150 respondents 53.33% of respondents have taken 30-45 minutes for admission procedure and 29.33% of respondents have taken 20-30 minutes. Most of the respondents want the time taken for admission procedure to be less. Only 4% of the respondents complained against delay in the admission when the patient was critically ill.

In consultation with all the respondents it was concluded that the regulatory authority like government, based on the ratings of in-patients and out-patients should honour the services of the best doctors which in turn gives recognition to the doctors for their yeomen service and at the same time the public be informed about the doctor's contribution.

Conclusion

The result of the study revealed that all the respondents were happy with most of the service parameters of the hospital. Still the mean score for overall satisfaction is 3.98 out of 5; this is because of influence of few service parameters which disturbed them during their stay like admission procedure, insurance claim, discharge procedure, canteen food etc. Further assessment revealed the shifts of nurses has significant influence on nursing care, the lifestyle of the patients also had significant impact on patient's health condition.Fish bone analysis gave an insight into the long waiting time for doctor's consultation. The personal interview with patients helped to know patients experience better in case of health insurance, where the research was also informative to patients. In-patients feel the process of insurance claims has a lot of loopholes which has to be fixed.

One of the limitations of the study is that it considers only in-patients and out-patients are outside the preview of the present study. Due to time limitations all private hospitals were not covered and public hospitals do not come under the study.

This research opens avenues for further research to compare in-patients and out-patient satisfaction, psychological factors which affects patient's recovery, educating people about the treatments that are covered under various health insurance schemes, clinical and non-clinical factors influencing patient satisfaction etc. The dynamics of patient satisfaction can also be studied by taking individual departments like cardiology, radiology, Pediatric ward etc.

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