International Journal of Mathematics and Statistics Invention (IJMSI)
E-ISSN: 2321- 4767 P-ISSN: 2321-4759
www.ijmsi.org Volume 9 Issue 8 || August, 2021 || PP 14-24

An assessment of Queue management and Patient Satisfaction of Some Selected Hospitals in North-Western Nigeria

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Abstract
The purpose of this research was to assess queue management practices in relation to customer satisfaction at some selected hospitals in the North-Western Nigeria namely Federal Medical Centre, Katsina, General Hospital Katsina, Ahmadu Bello University Teaching Hospital, General Hospital Hunkuyi, Usmanu Danfodiyo University Teaching Hospital, General Hospital Wamakko, Federal Medical Centre Gusau and General Hospital Talata Mafara . A sample of 2,850 registered patients in these hospitals were randomly selected and provided with the questionnaires to answer questions therein but only 2,793 retrieved. Queue management was studied using waiting time for service, the waiting environment conditions and service quality in relation to customer satisfaction. The result showed that a significant percentage of the patients were not satisfied with how queues were managed at the selected hospitals. Regression analysis shows that all the three dimension of service quality have significant with the patient's satisfaction. While service quality, and waiting environment were positively correlated to general satisfaction of patients towards service provided at the hospitals, but the service time had negative effect on the satisfaction of the patients.

Keywords: *Queuing theory, Queuing management, Service Quality, Patients satisfaction*

Date of Submission: 04-11-2021 Date of Acceptance: 18-11-2021

I. Introduction

Queues (waiting lines) are encountered in our day to day life especially when attending different issues at different service provider such as health facilities, supermarket, bus services, industries, companies, or office/ business outlets and so on. The situation usually becomes distressing if there is no well established queue management system. A well managed queue management system in service delivery industries is beneficial to all stakeholders involved. Queuing situations arise in all aspects of work and life and are typified by the process of queuing for services, i.e., a set of physical units (people or things) which wait in a queue or queues subject to certain rules of behaviour before some services are performed on or for each unit in the queue one after the other (Burodo, Suleiman and Shaba, 2019)

Queuing theory is the mathematical study of waiting lines, or the act of joining a line (queues). Wherever there is competition for limited resource queuing is likely to occur (Koko, Burodo & Suleiman 2019).

Queue management is the most vital section in maintaining the satisfaction level required by customers. Queuing theory deals with waiting lines and its related activities.

A patient paying a visit to any health facility is expecting to be served in a very short time possible and in an efficient manner. Unfortunately this is not what is experienced in most of our hospitals. Poor adherence to hospitals working ethics, poorly established and/ managed queue management practices and complacency of working staffs might be some of reasons for the delays of services in our hospitals.

Queue management is a critical part of the service industry. It deals with the issue of fiar treatment of customers in order to reduce waiting time and improve service quality (Desta and Belele 2019). Queue management deals with cases where the customer arrival is random; therefore, service rendered to them is also random. According to Lee (2019) queue management refers to set of principles aimed at customer flow and streamlining the queuing experience.

Unmanaged queues are detrimental to the gainful operation of service systems and results in a lot of other managerial hitches (Chase, Aquilano, and Jacobs, 2001).

Customer satisfaction has been observed as as a key strategy of every business and a benchmark against which many organizations have set their standards. Sustaining prevailing customers for organizations is ever more important than the ability to capture new

ones because customers are vital to any organization's success (Anubhav, 2010). Without customers, organizations would have no profits, no resources and therefore no market niches that can enable them to compete in the global arena (Mburu, Zyl, and Cullen, 2013)

A customer satisfaction is an ambiguous and abstract concept. Actual manifestation of the state of satisfaction will vary from person to person, product to product and service to service. The state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors (Suleiman and Usman 2016)

Liang (2016) opined that companies can reduce customers' perceived waiting time by means of changing their negative feelings associated with the waiting. He defines queue management as "company's actions to manage a queue"

Lambrecht and Tucker (2012) believe that companies can distract the attention of waiting customers by complimentary snacks available to them. Also, (Cameron, Baker & Peterson, 2003) are of the view that companies can make waiting environment better by distracting customers through electronic bulletin boards, movies, music, and news.

Agyei (2019) established that there is a significant positive relationship between waiting line management technique and customer satisfaction of commercial banks in the Techiman Municipality. The study recommended that the banks need to consider new methods of serving its customers like developing self-service facilities to reduce the number of customers waiting in line to be served by customer service representatives.

Depending on the type and how well established queue management practices in an organization, customers may balk, reneged or jockey while waiting for service. This experience is mostly frustrating to all stakeholders concerned. Though this might be taken lightly/ not seriously especially when competition is minimal or none at all, the situation is quite different when the competition is of great magnitude. Customers may switch between companies temporarily or permanently. With queue management as a component of service quality, customers will chose and prefer a company offering quality services

The main objective of this research was to assess how waiting line management influences customer satisfaction. With the following specific objectives:

1) To assess how satisfied are patients regarding the length of time they spend waiting for service.
2) To determine patients feeling regarding the waiting environment at the hospitals
3) To determine the service quality offered by the hospitals to patients

In order to attain these objectives, the following research questions were raised.

a) How satisfied are patients on the time they spend waiting for service?
b) How do patients feel on the waiting environment at the hospitals?
c) What is the quality of service offered by hospitals to patients?

II. Methodology

A descriptive research design was employed in this study. It is the type of research concerned with characteristics of a particular individual, or of a group, event or situation (Mbogo et al, 2012).

Structured questionnaires were the main instruments used for data collection. Most of the questions in the questionnaire were either 3 or 5 likert scaled (see Appendix). For the purpose of this study, primary data were collected using structured questionnaires. Patients who attend the selected hospitals for medical services namely Federal Medical Centre, Katsina, General Hospital Katsina, Ahmadu Bello University Teaching Hospital, General Hospital Hunkuyi, Usmanu Danfodiyo University Teaching Hospital, General Hospital Wamakko, Federal Medical Centre Gusau and General Hospital Talata Mafara were randomly administered with questionnaires. Descriptive statistics inform of percentages and frequencies as well as regression analysis as an inferential statistics were used in this study. Microsoft excel and SPSS packages were used to analyse the data generated from the questionnaires.

Regression analysis was used to establish the relationship between service quality components and Patients' satisfaction. Waiting time, waiting environment and all components of servqual model were used as independent variables to evaluate the patient's satisfaction status as illustrated in Figure 1

The regression equation model for this research can be specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

Where

$X_1 =$ Waiting time
$X_2 =$ Waiting environment
$X_3 =$ Service quality
$\varepsilon =$ Error term (residuals)

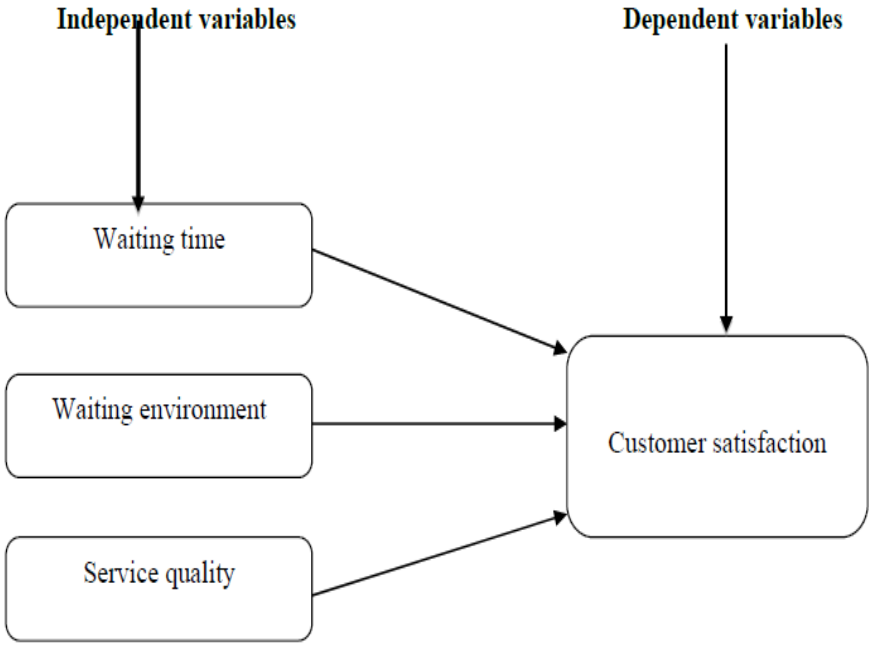

Figure 1: Conceptual Framework

III. Result and Discussion

Table 1: Sample size from Raosoft sample size calculator

S/N	Hospital	Population	Minimum sample size from sample size calculator
1	Ahmadu Bello University Teaching Hospital (ABUTH, Shika)	4,829	356
2	Usmanu Danodiyo University Teaching Hospital	3,753	349
3	Federal Medical Centre, Katsina	2,364	331
4	Federal Medical Centre, Gusau	1,936	321
5	General Hospital,Malumfashi	1,612	311
6	General Hospital,Hunkuyi	847	265
7	General Hospital,Wamakko	1,459	305
8	General Hospital, Talata Mafara	1,398	302
Total		18,198	2,540

Table 1 presents population of registered patients for each hospital which was used to calculate the corresponding minimum sample sizes according to equation (2) with the help of Raosoft sample size calculator. After determining the minimum sample sizes for the various hospitals, four hundred (400) questionnaires were distributed in Ahmadu Bello University teaching hospital Shika and Usmanu Danfodiyo University teaching hospital. Similarly three hundred and fifty (350) were distributed in all the remaining hospitals except General Hospital Hukunyi, where exactly 300 questionnaires were distributed. The table2 shows the number of questionnaires distributed and retrieved for each hospital.

$$\text{Sample size} = \frac{\frac{Z^2 \times P(1-p)}{e^2}}{1+(\frac{Z^2 \times P(1-p)}{Ne^2})} \qquad (2)$$

$N = poplation\ size$
$e = Margin\ of\ error$ (5%)
$Z = z - score\ and\ we\ used$ 95% (1.96)
$p = 50\% = 0.5$

Table 2: Number of Questionnaires Distributed and Retrieved

S/N	Hospital	Number of questionnaires distributed	Number of questionnaires retrieved
1	Ahmadu Bello University Teaching Hospital (ABUTH, Shika)	400	389
2	Usmanu Danodiyo University Teaching Hospital	400	383
3	Federal Medical Centre, Katsina	350	347
4	Federal Medical Centre, Gusau	350	338
5	General Hospital,Malumfashi	350	351

6	General Hospital,Hunkuyi	300	294
7	General Hospital,Wamakko	350	343
8	General Hospital, Talata Mafara	350	348
Total		2,850	2,793

Table 3: Reliability test

Dimension	Cronbatch's Alpha	Number of items
Tangibility	0.762	3
Reliability	0.735	3
Responsiveness	0.825	2
Assurance	0.772	3
Empathy	0.702	2
Patients satisfaction	0.812	3
Waiting room information	0.876	3
Queue management	0.716	5

Prior to take off of the research, a pilot survey was conducted on 50 respondents for each hospital to test the relevance of the questions in the questionnaire. Using Cronbach's Alpha the measure of reliability was done on the research data. The results of reliability test are summarized in the Table 3. It indicates that scales used for measuring these questions were all reliable since all the alpha coefficients are greater than 0.65 as the minimum value recommended by many methodologists.

Table 4 indicates that out of 2,793 patients, the number of female patients exceeds a bit the number of male patients. They constituted 53.5% of the entire sample size, while the remaining 46.5% were male patients. It indicates that 592(21.2%), 986(35.3%), 888(31.8%) and 11.7%) aged less than 20 years, 21 to 40 years, 41 to 60 years and above 60 years respectively. It is therefore clear that the majority of the respondents aged between 21 to 60 years. It indicates that 485(17.4%), 706(25.3%), 918(32.9%) and 684(24.5%) possessed Quranic/Islamiyya, Primary school certificate, Secondary School certificate and tertiary certificate respectively. It is therefore clear that the majority of the respondents obtained secondary school certificate. Employment status distribution of the respondents indicates that 626 (22.4%), 336(12.0%), 519(18.6%),421(15.1%) and 891(31.9%) of the respondents are civil servants, retired workers, self employed, students and other specified employments respectively It is therefore clear that the majority of the respondents have other specified employments particularly housewives. Finally marital status distribution of the respondents indicates that 400(14.3%), 1,578(56.5%), 67(2.4%), 498(17.8%) and 250(9.0%) of the respondents are single, married, separated, divorced and widowed respectively It is therefore clear that the majority of the respondents are married.

Table 4: Demographic characteristics of the respondents

Gender	**Frequency**	**Percentage (%)**
Male	1,298	46.5
Female	1,495	53.5
Total	2.793	100.0
Age	**Frequency**	**Percentage (%)**
≤ 20	592	21.2
21-40	986	35.3
41-60	888	31.8
Above 60	327	11.7
Total	2793	100.0
Highest qualification	**Frequency**	**Percentage (%)**
Quranic/Islamiyya School	485	17.4
Primary School	706	25.3
Secondary school	918	32.9
Tertiary school	684	24.5
Total	2793	100.0
Employment status	**Frequency**	**Percentage (%)**
Civil servant	626	22.4
Retired	336	12.0
Self employed	519	18.6
Student	421	15.1
Other specify	891	31.9
Total	2793	100.0
Marital status	**Frequency**	**Percentage (%)**
Single	400	14.3
Married	1578	56.5
Separated	67	2.4
Divorced	498	17.8
Widowed	250	9.0
Total	2793	100.0

Table 5 shows that patients were satisfied in great percentage with the tangibility services except waiting environment which according to the respondents was not good and spacious. Patients were not satisfied in great percentage with the reliability of the hospitals services except that the hospitals are dependable and consistent in solving their problems. Patients were moderately satisfied with the responsiveness of the hospitals services since agreed with one dimension of it and disagreed with the other. Patients were not satisfied with the assurance of the hospitals services except that the patients have reasonably agreed that the hospital staffs are able to fix patients. Patients were not satisfied with the empathy of the hospitals services except that the patients have to some extent agreed that the hospitals working hours are convenient.

Table 6 presents the opinions of the respondents about their level of satisfaction with the hospital services, majority of the patients (respondents) have expressed dissatisfaction with the hospital services except when it comes to their experience with the hospital personnel to some extent a bit satisfied as clearly in figure

Table 7 presents perception of the respondents on waiting time, it indicates that 1,645 patients representing 58.9% were not happy with the service time in the hospitals and the remaining 1,148 patients representing 41.1% were happy with the service time in the hospitals. This clearly indicates that the majority of patients were not happy with services at the hospitals. It also indicates that 198 (7.1%), 986(35.3%), 888(31.8%), 561(20.1%) and 160(5.7%) patients rated service time very fast, fast, moderate, slow and very slow respectively. This clearly indicates that the majority of patients rated service time as fast and moderate. Out of 2,793, 1,909 patients representing 68.3% have never turned away due to longer time taken to be serviced and the remaining 884 patients representing 31.7% have once time turned away due to longer time taken to be serviced in the hospitals. It therefore indicates that the majority of patients have never turned away due to longer time taken to be serviced. indicates that 2013 patients representing 72.1% have not ever balked after they entered hospital and found out there are a lot of people waiting for services and the remaining 780 patients representing 27.9% have ever balked after they entered hospital and found out there are a lot of people waiting for services It therefore indicates that the majority of patients have not ever balked after they entered hospital and found out there are a lot of people waiting for services. It indicates that 398 (14.2%), 984(35.2%), 785(28.1%), 214(7.7%) and 412(14.8%) patients described the time they spent waiting for service at the hospitals as too long, long, moderate very short and short respectively. This clearly indicates that the majority of patients spent long time waiting for services at the hospitals where this study was conducted.

Table 8 indicates that patients were generally satisfied with waiting room environment except about the issue of having enough chairs/benches in the room for patients to sit while waiting for service where they indicated their strong dissatisfaction as clearly be seen in figure 3.

Table 9 indicates that patients have agreed that queues are managed properly at the hospitals and there are barriers to guide patients in queues. Similarly, patients have to some extent disagreed that hospital staffs are of great help in helping patients in queues, queues discipline follows FCFS pattern mostly (i.e the first to arrive will be serviced firstly). The table also indicated that the patients are generally dissatisfied with how they are handled at the hospital while waiting for service as this is clearly seen in figure 4.

Table 5: Service Quality Dimension

Tangibility	Response in frequency and (percent)				
	SA	AG	UD	DA	SD
Hospital waiting environment is good(big enough) with nice equipments and materials	198(7.1)	508(18.2)	151(5.4)	1327(47.5)	609(21.8)
Appearance of working staff is attractive	489(17.5)	1,572(56.3)	92(3.3)	578(20.7)	62(2.2)
Hospital gives access to information about its services	478(17.1)	1,681(60.2)	59(2.1)	438(15.7)	137(4.9)
Reliability	Response in frequency and (percent)				
	SA	AG	UD	DA	SD
Hospital services are delivered timely	254(9.1)	369(13.2)	75(2.7)	1343(48.1)	752(26.9)
Hospital keeps its promises to patients	84(3.0)	698(25.0)	73(2.6)	1,458(52.2)	480(17.2)
Hospital is dependable and consistent in solving patients problems	439(15.7)	1,455(52.1)	53(1.9)	718(25.7)	128(4.6)
Responsiveness	Response in frequency and (percent)				
	SA	AG	UD	DA	SD
Hospital staffs tell patients when services will be performed	344(12.3)	1,698(60.8)	50(1.8)	679(24.3)	22(0.8)
Hospital staffs willingly attend to patients inquiry and problems	201(7.2)	572(20.0)	14(0.5)	1,366(48.9)	640(22.9)
Assurance	Response in frequency and (percent)				
	SA	AG	UD	DA	SD
The behaviour of hospital staffs inspire confidence in patients	212(7.6)	486(17.4)	36(1.3)	1,645(58.9)	414(14.8)
Hospital staffs are able to fix patients Problems	791(28.3)	1,243(44.5)	25(0.9)	511(18.3)	223(8.0)
Hospital services are of high quality.	385(13.8)	528(18.9)	11(0.4)	1,330(47.6)	539(19.3)

Empathy	Response in frequency and (percent)				
	SA	AG	UD	DA	SD
Hospital staffs are approachable and easy to communicate	190(6.8)	696(24.9)	39(1.4)	1,335(47.8)	533(19.1)
Hospital has convenient working hours	201(7.2)	1,184(42.4)	36(1.3)	1,126(40.3)	246(8.8)
The attitude of the nursing personnel is good	117(4.2)	816(29.2)	20(0.7)	1,455(52.1)	385(13.8)

SA=strongly agreed, AG=Agree, UD=undecided, DA=disagree and SD=strongly disagree

Table 6: Patients level of satisfaction

Statement	VS	SA	NT	US	VU
How would you rate your experience with hospital personnel?	75(2.7)	1,517(54.3)	22(0.8)	1,145(41)	34(1.2)
Generally how satisfied are you with the hospital service?	59(2.1)	818(29.3)	48(1.7)	1,402(50.2)	466(16.7)
How satisfied are you with the waiting room environment?	310(11.1)	542(19.4)	25(0.9)	1,293(46.3)	623(22.3)

VS= very satisfied, SA=satisfied, NT=Neural, US=unsatisfied and VU=very unsatisfied

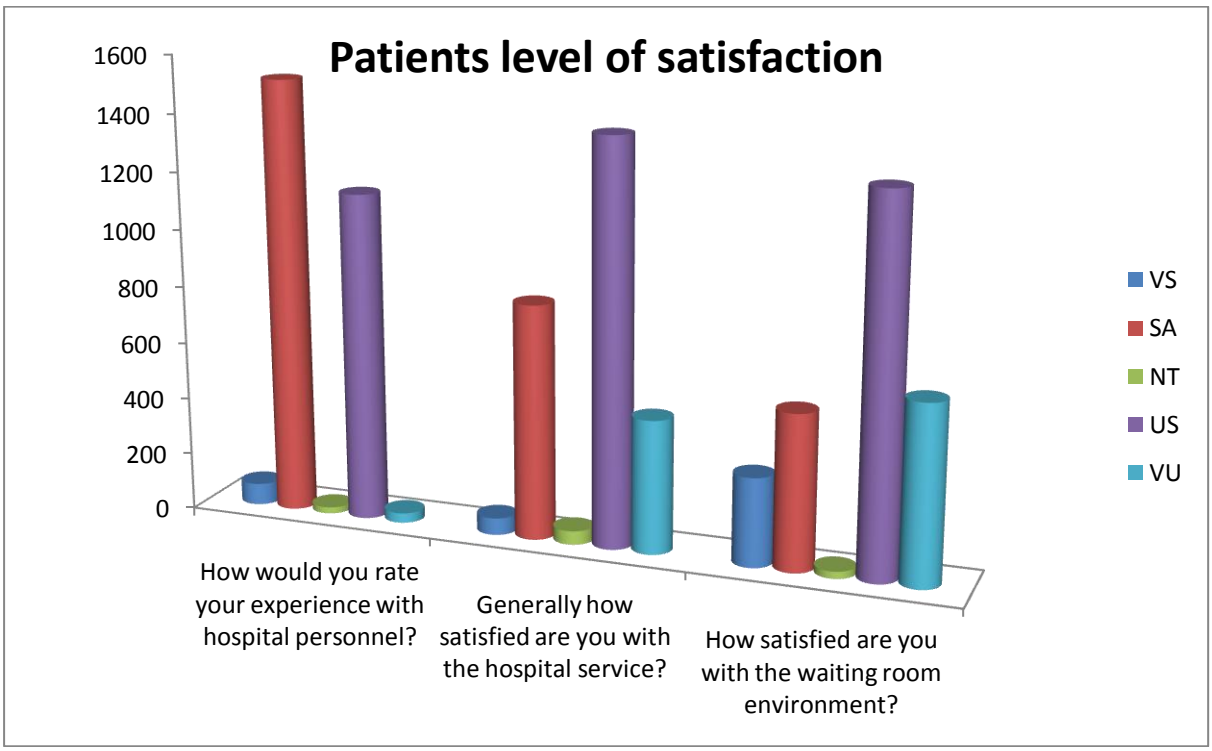

Figure 2: Bar chart representing responses of patients' views on their level of satisfaction with the hospitals services

Table 7: Waiting time

Are happy with the service time	**Freq**	**Percent(%)**
No	1645	58.9
Yes	1,148	41.1
Total	2,793	100.0
How do you rate the service time	**Freq**	**Percent (%)**
Very fast	198	7.1
Fast	986	35.3
Moderate	888	31.8
Slow	561	20.1
Very slowly	160	5.7
Total	2,793	100.0
Have you ever turned away due to longer time taken to be serviced	**Freq**	**Percent (%)**
No	1,909	68.3
Yes	884	31.7
Total	2,793	100.0
balked (turn around and left)	**Freq**	**Percent (%)**
No	2013	72.1
Yes	780	27.9
Total	2,793	100.0

How would you describe the time you spent waiting for service at the Hospital	**Freq**	**Percent (%)**
Too long	398	14.2
Long	984	35.2
Moderate	785	28.1
Very short	214	7.7
Short	412	14.8
Total	2,793	100.0

Table 8: Waiting Room Information

Statement	SA	AG	UD	DA	SD
The waiting room is specious and big enough	346(12.4)	1,221(43.7)	36(1.3)	908(32.5)	282(10.1)
The waiting room is well ventilated	751(26.9)	1,056(37.8)	50(1.8)	743(26.6)	193(6.9)
There are enough chairs and/ benches in the room for Patients to sit while waiting for service	271(9.7)	595(21.3)	25(0.90)	1,553(55.6)	349(12.5)

SA=strongly agree, AG=Agree, UD=undecided, DA=disagree and SD=strongly disagree

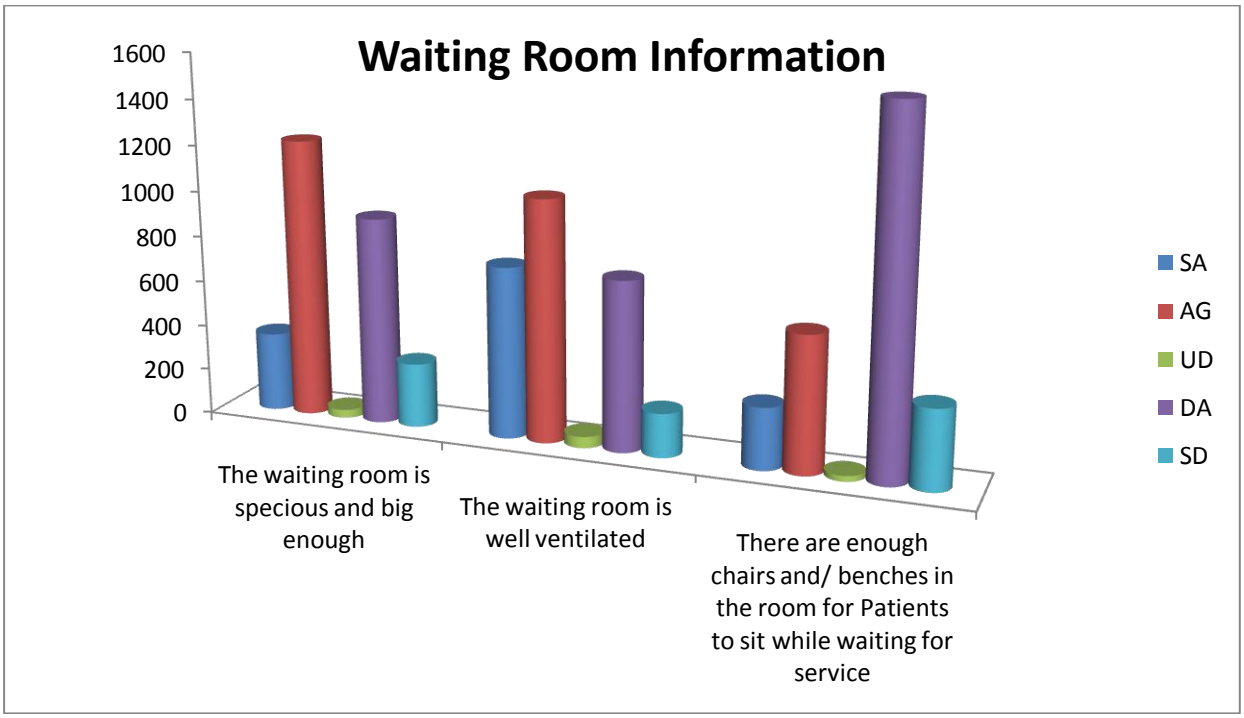

Figure 3: Bar chart representing responses of patients' views on Waiting room information at the hospitals

Table 9: Queue Management

Statement	SA	AG	UD	DA	SD
Queues are managed properly at the hospital	212(7.6)	1,134(40.6)	45(1.6)	1,109(39.7)	293(10.5)
There are barriers to guide patients in queues	528(18.9)	1,176(42.1)	19(0.7)	897(32.1)	173(6.2)
Hospital staffs are of great help in helping patients in queues	369(13.2)	684(24.5)	34(1.2)	1,109(39.7)	598(21.4)
Queue discipline follows FCFS pattern mostly (i.e the first to arrive will be serviced firstly	511(18.3)	679(24.3)	45(1.6)	1,070(38.3)	488(17.5)
Generally I am satisfied with how patients are handled at the hospital while waiting for service	327(11.7)	746(26.7)	11(0.4)	1,433(51.3)	276(9.9)

SA=strongly agree, AG=Agree, UD=undecided, DA=disagree and SD=strongly disagree

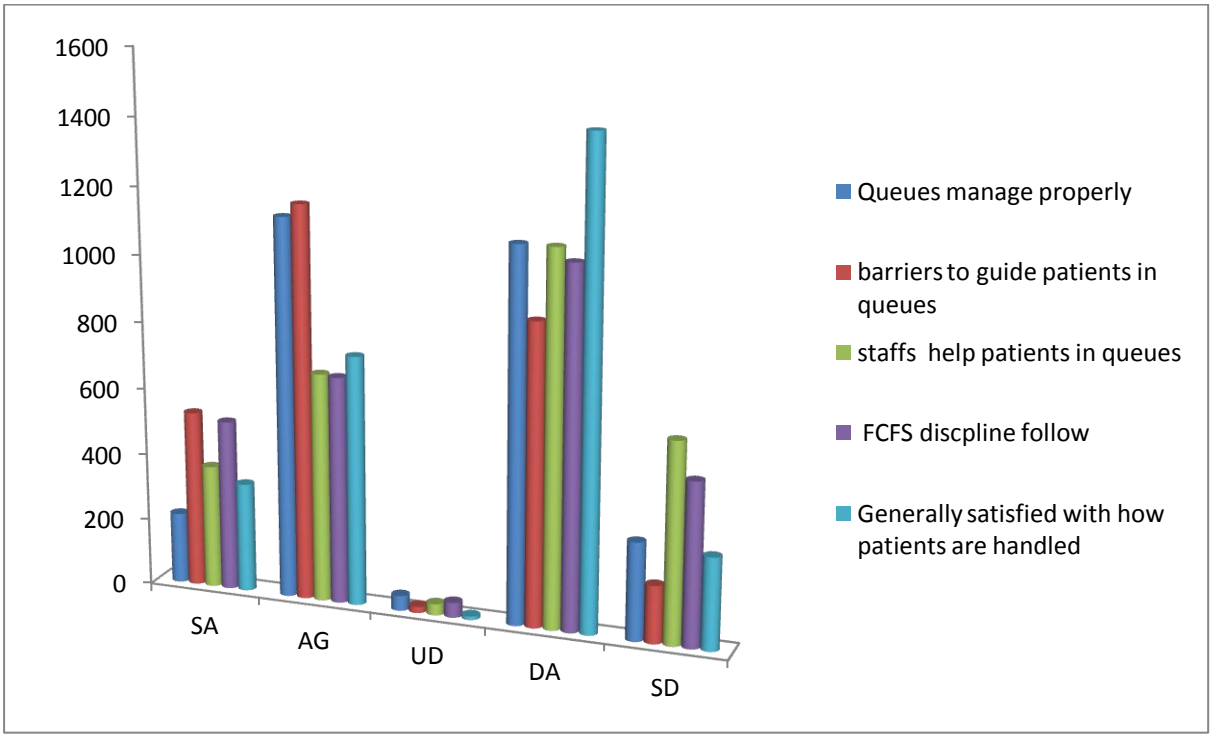

Figure 4: Bar chart representing responses of patients' views on queue management at the hospitals

3.1 Regression Analysis of the relationship between service quality dimension and patients satisfaction

The regression analysis from table 10 reveals that, there are significant positive correlations between the components/dimensions of service quality in terms of waiting time, waiting environment and service quality with patient satisfaction. The correlations between waiting time, waiting environment and service quality with patient satisfaction are −0.546, 0.734 and 0.528 respectively. These correlations are all significant since all p-values are less than 5% level of significance. Table 11 also indicates that the joint effect of service quality dimensions is also highly significant.

Table 10:Reggression Coefficients of patient satisfaction

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.042	.048		-.878	.383
	Waiting time	-.472	.091	-.546	5.212	.000
	Waiting environment	.550	.095	.734	4.729	.000
	Service quality	.518	.087	.528	5.978	.000

a. Dependent Variable: Patients 'satisfaction

Table 11: ANOVA for Patients 'satisfaction

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	139.411	3	46.470	1118.533	.000[b]
	Residual	3.365	81	.042		
	Total	142.776	84			

a. Dependent Variable: Patients 'satisfaction

Table 4.68: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.988[a]	.976	.976	.20383

a. Predictors: (Constant), Waiting time, Waiting environment, Service quality

IV. Conclusion

Queue management was analysed data obtained from the eight selected hospitals considered in this study through a structured questionnaire administered randomly to registered patients. The results obtained from questionnaires revealed that patients were generally dissatisfied with service quality in these hospitals, patients

'waiting time is much longer than service time. The regression analysis suggested that all the three components (waiting environment, waiting time and service quality) were identified as good determinants of Patients' satisfaction in the hospitals. While the improvement in waiting environment and service quality increase the patients' level of satisfaction, increase in waiting time also decreases the patient level of satisfaction. The research also recommended that the hospital management and staffs should always be up to date technologically and attend patients care trainings frequently and being reminded tirelessly the values, mission and vision of serving their patients.

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Appendix

Patients Questionnaires

Research Questionnaire

Questionnaire to Hospitals 'Patients

Dear respondent, kindly fill out this questionnaire. It is strictly for educational purposes and therefore all information provided shall be treated with maximum caution and confidentiality. Your cooperation is highly appreciated.

Please tick the appropriate option

Section A: Demographic and General Information.

1. Gender

Gender	
Male	
Female	

2. Age

Age (years)	
≤ 20	
21-40	
41-60	
Above 60	

3. Highest level education

Quranic/Islamiyya School	
Primary School	
Secondary School	
Tertiary School	

4. Employment status

Civil servant	

Retired	
Self employed	
Student	
Others, specify	

5.

Marital Status	
Single	
Married	
Separated	
Divorced	
Widowed	

Section B: Service Quality

6. Choose among the given options where SA = strongly agree, AG = Agree, UD = Undecided, DA = Disagree, SD = Strongly Disagree

Dimension	Statement	SA	AG	UD	DA	SD
Tangible	Hospital waiting environment is good(big enough) with nice equipments and materials					
	Appearance of working staff is attractive					
	Hospital gives access to information about its services					
Reliability	Hospital services are delivered timely					
	Hospital keeps its promises to patients					
	Hospital is dependable and consistent in solving patients problems					
Responsiveness	Hospital staffs tell patients when services will be performed					
	Hospital staffs willingly attend to patients inquiry and problems					
Assurance	The behaviour of hospital staffs inspire confidence in patients					
	Hospital staffs are able to fix patients Problems					
	Hospital services are of high quality.					
Empathy	Hospital staffs are approachable and easy to communicate					
	Hospital has convenient working hours					
	The attitude of the nursing personnel is good					

Section C: Patients Satisfaction

7. Choose among the given options where VS = Very satisfied, SA = Satisfied, NT = Neutral, US = Unsatisfied, VU = Very unsatisfied

	Statement	VS	SA	NT	US	VU
5.1	How would you rate your experience with hospital personnel?					
5.2	Generally how satisfied are you with the hospital service?					
5.3	How satisfied are you with the waiting room environment?					

Section D: Queue Management, Waiting Room and Waiting Time

6. Are you happy with the service time? i) Yes ii) No
7. How do you rate the service time? i) Very fast..ii) Fast iii) moderate) slowly v) very slow
8. Have you ever turned away due to longer time taken to be serviced? i) Yes ii)No
9. Have you ever balked (turn around and left) when you entered the hospital and find out there a lot of people in queues or waiting for services? i) Yes ii) No

10. Choose among the given options where SA = strongly agree, AG = Agree, UD=Undecided, DA = Disagree, SD = Strongly Disagree

	Statement	SA	AG	UD	DA	SD
10.1	The waiting room is specious and big enough					
10.2	The waiting room is well ventilated					
10.3	There are enough chairs and/ benches in the room for Patients to sit while waiting for service					

11. Is there a queue management practice seen at the hospital? i) yes .ii)No

12. How would you describe the time you spent waiting for service at the Hospital? i) Too long ii) long.iii) moderate .iv) short. v) very short.

13. Choose among the given options where SA = strongly agree, AG = Agree, UD=Undecided, DA = Disagree, SD = Strongly Disagree

	Statement	SA	AG	UD	DA	SD
13.1	Queues are managed properly at the hospital					
13.2	There are barriers to guide patients in queues					
13.3	Hospital staffs are of great help in helping patients in queues					
13.4	Queue discipline follows FCFS pattern mostly (i.e the first to arrive will be serviced firstly					
13.5	Generally I am satisfied with how patients are handled at the hospital while waiting for service					