EFFECTS OF WAITING TIME ON PATIENT SATISFACTION: NIGERIAN HOSPITALS EXPERIENCE

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Abstract

The time spent waiting for services at outpatient department couple with some factors of quality care are major determinants of patient satisfaction. This study examines the relationship between waiting time and patient satisfaction. Data was obtained through structured questionnaire distributed to a randomly selected 240 outpatients of the selected public and private health centres to ascertain their views as regards to waiting time and evaluation of level of satisfaction with service delivery. Data obtained were analysed using descriptive statistics. This study has shown that a good numbers of the patients were satisfied with the service delivery despite experiencing long waiting time. Though, lengthy waiting line is evident in the public hospital than the other private hospitals. But this does not affect patient perception of quality care offered because long waiting time is a general occurrence in Nigerian hospitals especially in publicly funded health centres. Efforts should be made by hospital administrators and medical personnel to eliminate unnecessary delay in service delivery and where unavoidable; the waiting time should be made productive. Also, emphasis should be directed toward training of medical personnel on ways to create patient-oriented services and deliver more efficient services.

Keywords: Waiting Time; Healthcare Centre; Medical Personnel; Service Delivery; Quality care; Patient Satisfaction.

1. Introduction

Ma Managing waiting time in healthcare settings is a concept that has been receiving attention among researchers, healthcare practitioners and administrators over the years (Anderson, Camacho and Balkrishnan, 2007; Umar, Oche and Umar,2007; Senti and Lemire, 2011; Gup, Ofoedu, Njoku, Odu, Ifedigbo and Iwuamanam, 2012). Waiting in line has become an integral part of healthcare services and it is considered to be central to assessing patient satisfaction. Yeddula (2012) is of the opinion that as patients experience a greater squeeze on their time, short waits seem longer than even before. This queuing situation is worst in publicly funded or highly busy hospitals and managing it has become a serious challenge.

Waiting lines occur where resources (doctors, nurses, beds, etc.) are limited and demand for service exceeds supply. Patient waiting time can be described as the amount of time patient spent before being served. In hospitals, patients can wait for minutes, hours, days or months to receive services. Yeddula (2012) asserts that the amount of time patient wait during clinic visit is a source of dissatisfaction with healthcare. Generally, patients are annoying or

not interested in waiting for services, they want to receive immediate services on arrival. In healthcare setting, waiting time can be described in two folds: waiting room wait time and exam room wait time. Waiting room wait time is described as the time spent between requesting the patient be seated in the waiting room and the time he/she was called to see the medical personnel such as nurse, doctor, pharmacist, etc. This can occur in between different services. Exam room wait time is described as the amount of time spent from the time the patient was seated in an exam room and the time the physicians, nurses, pharmacists, etc. spent with patients (Micheal, schaffer, Egan, Little and Pritchard, 2011).

Nowadays, medical service delivery is patient-centred in which patients have become increasingly demanding, expecting high quality services at competitive price and delivered promptly. The general queue discipline adopted in hospital is that patients are served immediately on arrival on first come first serve or join a queue if the server is temporary engaged (Brahma, 2012). The length of time a patient spent waiting to be served affects the desired satisfaction and it's central to patients' evaluation of service delivery process. Afolabi and Erhun, (2003) assert that a patient's experience of waiting can radically influence his/her perceptions of service quality. Several studies have documented that patients' long waiting times are barriers to actually obtaining quality services (Kurata, Nogawa, Philips, Hoffman and Werblum 1992) which results to dissatisfaction with health care (Anderson, Barbara and Fildman, 2008) and patient frustration. Afolabi and Erhun's, (2003) and Prasanna, Bashith and Sucharith's (2009) revealed that excessive patient waiting time undermines system efficiency, patient satisfaction and patronage which lead to the loss of some patients to competitors. Unmanaged waiting lines in hospitals negatively affect the quality of care which in turn adversely affects patient satisfaction. Increased waiting time results to patient disappointment, frustration and decrease the patient's sense of control and lead to loss of patronage on the part of the hospital patronage.

Literature shows that waiting time is one of the key predictors of patient satisfaction (Umar et al, 2011; Camacho, Anderson, Safrit, Jones and Hoffmann, 2006 Anderson, Camacho and Balkrishnan, 2007; Karaca, Erbil and Ozmen, 2011; Yeddula, 2012) and it is useful to evaluate system efficiency.

Waiting time reduces the efficiency of production time and adds to the indirect costs of both the patients and hospitals. Lovelock (1996) as cited in Karaca, et al. (2011) posited that American spent 37 billion hours per year waiting in emergency rooms. What is experienced in some departments (such as Outpatient Department, Pharmacy, Diagnostic, Ante-natal, etc.,) of the hospital is similar. The waiting time experience in developing country such Nigeria is worst than what is obtainable in developed country. In fact, it has been assumed to be part of health care delivery. The amount of time patients wasted waiting to receive medical service can be productivity invested. Yeddula (2012) found that if the healthcare organizations can improve patients' perceptions of the time they spend waiting then patients will experience less frustration and may feel more satisfied with the services and results to improvement in hospital performance. Drain (2007) study reveals that reducing wait times can lead to improved financial performance of the practice.

Patient satisfaction is a highly desirable outcome of care in the health centres, but it is difficult to measure because it is a function of both clinical and non-clinical activities (Sodani, Kumar, Srivastava and Sharma, 2008). Though, it centres on patient's judgment on the quality and goodness of care (Sixma, Spreeuwenberg and van der, 1998). So, healthcare resources should be channeled towards the outcomes that are consistent with patient values and preferences (Gup, Ofoedu, Njoku, Odu, Ifedigbo and Iwuamanam, 2012). Although, patient satisfaction is acclaimed to be subjective judgment of the quality of medical service (Merkouris, Andreadou, Athini, Hatzimbalasi, Rovithis, Papastavrou, 2013) but it has long

been considered an important component in the assessment of health care quality (Harutyunyan, Demirchyan, Thompsonand Petrosyan 2010; Yeddula, 2012). Also, despite describing several methods of evaluating the quality of care (Hermida, Nicholas and Blummenfeld, 1999) and no universal accepted of assessing quality of care (Gup, et al, 2012), there is growing agreement that patient satisfaction survey will be the best to measure quality of care (Press, 2006; Turnbull and Hembree 2006; Merkouris, 2013).

Patients are satisfied when their numerous expectations are met and dissatisfied when they are not met. Bopp (1989) and Matulich and Finn (1989) reveal that patients expected free flow of information from servers. They expected equality in treatment and be treated in a caring, professional, and competent manner. They expected a reasonable and justifiable waiting time. Each factor encounter enhances or detracts from a patient's appraisal of overall service quality, hence patient satisfaction. In Senti and LeMire' (2011) opinion, patient satisfaction is a function of the degree of agreement between the patient;s preconceived expectation and perceptions of the actual care. Furthermore, Jenkinson, Coulter, Bruster, Richards and Chandola (2002) assert that patient satisfaction is an attribute of many factors such as: quality of medical services provided, availability of medicine, behavior of doctors and other health staff, cost of services, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences.

An important factor in assessing patient satisfaction is timely service delivery which can be achieved with reasonable waiting time. In Mowen, Licata and Mcphail's (1993) opinion, there are four key attributes associated with patient satisfaction: trust, adequate communication flow, behavior of the service providers and waiting time. This study focuses more on the fourth attribute (waiting time) of Mowen et al's (1993) study. This implies that in this research, patient satisfaction was defined importantly as satisfaction with waiting room wait time and exam room wait time, and other patient satisfaction indexes. Therefore, this study wants to investigate the relationship between waiting time and patient satisfaction of outpatients focusing on waiting experience and some satisfaction attributes. Although, few researches have been done on relationship between waiting time and patient satisfaction, with longer waiting times being associated with decreased patient satisfaction (Camacho, Anderson, Safrit, Jones and Hoffmann, 2006), but the degree of the association between waiting time and patient satisfaction varies across nations, hospitals and departments.

Most of these studies were conducted in developed nations and few that were conducted in Nigeria focused mostly on Government funded University Teaching Hospitals. Furthermore, it is evident in Nigeria that patient and society comments negatively about public hospitals operations ranging from long waiting time, unpleasant behaviours and negligence of staff, incompetence and discontinuity of care. These negative experiences and comments have resulted to poor public confidence in public hospitals and increased the patronage of private hospitals. Despite the relevance of these negative comments especially concerning waiting time management to practice outcomes and patient satisfaction, timeliness of care has not been taken serious and among the least studied in Nigeria.

There is limited publication in the Western Nigerian on the relationship between prompt service delivery and patient satisfaction in both public and private hospitals. It is against this development that this study focuses on how efficient waiting time can improve quality of care and patients satisfaction in the selected hospitals (i.e. both public and private).

2. Materials and Methods

A survey method was carried out at the outpatient units of the selected hospitals which are located in Ogun State. Ogun State is a bounder state to Lagos; Nigeria's biggest commercial centre and former federal capital. Covenant University Health Centre is situated

at the entrance of Covenant University, Ota, and it provides medical services to the students and staff of the university. Also, it services the staff and families of Living faith Church, Ota, Nigeria.

Covenant University is one of the leading private universities in Nigeria, with population of over 7000 (staff and students). Medicare is one of the best private hospitals in Ota, Ado-Odo-Ota, Local Government, Nigeria. It provides services for workers of numerous national and multinational companies, and elite people of Sango-Ota. Ota General Hospital is a publicly funded health centre that caters for both elite and low income earners of Ado-Odo-Ota, Local Government. The selected hospitals serve as referral centres in Sango-Ota. Also, by virtue of their locations in areas that accommodate many people working in Lagos, the patients' visits to these health centres are high.

Data were collected from patients who visited the outpatient units of these hospitals through observation and well structured questionnaire. Owing to the constraint of fund being a self sponsored paper, a sample of 240 patients (i.e. 80 patients per centre) was randomly selected over the study period (i.e. three months). The questionnaire sought information related to patient's demographic characteristics such as patient's age, sex, educational and occupational levels. Information about patient's waiting time obtained include; time spent waiting to see server, length of queues, causes of long queues and rating of service delivery on time performance. These questions were rated on a five-point Likert scale, 5(strongly agree) to 1 (strongly disagree). Any ratings involving strongly disagree and disagree were considered as disagreement overall, while rating involving agree and strongly agree was considered as agreement overall for purposes of average ratings. The analysis ignored the undecided responses in order to avoid the problem of central tendency and to gain more effective screening power (Sin and Tse, 2002). Also, the survey asked patients to rate their hospitals and medical personnel (especially the doctors and nurses) on several issues relating to their satisfaction like respect for patient, level of doctors and nurses' responsiveness, professionalism in handling the patients, trust in services, doctor friendliness and accommodating, quality of service to meet patient's expectations, etc. For patient satisfaction questions, respondents were asked to indicate their answers on a scale of 1 (poor) to 5 (excellent). For easily analysis, ratings involving good, satisfaction, very good and excellent were good overall. Data were analyzed by SPSS.

The in-depth review of literature on waiting time and patient satisfaction confirmed the sufficient validity. This means that the response was not due to chance but resulting to the relationship tested. Clark and Watson's (2007) opinion of measuring the internal consistency of the research instrument using Cronbach Alpha Coefficient (1951) recommended at least 70% reliability level. This was used to test the reliability of questionnaires and it resulted to a score of 0.87 (87%). Therefore the research instrument is reliable and accepted because the score is higher than the recommended 70%.

3. Results and Discussion

Of the 240 questionnaires distributed, a total 200 questionnaires were retrieved but some were partially filled and not suitable for research.. Overall, 85 copies of the questionnaires were properly filled which formed the basis of analysis of this paper. This results to a response rate of 35.42%, which falls within acceptance rate of similar past studies. Table 1 shows the patients' social- demographic characteristics. The majority were female (65%), dominated with patients of 18 to 24 ages (45%), involving more single (59%) than married patient (41%). All the respondents are educated having at least SSCE/NCE/OND certificate (25%); with 54% B.Sc, 15% M.Sc./MBA while few of the respondents (6%) hold other certificates not captured in the study. This implies that the respondents are educated and

understood the purpose and relevance of this study. However, this study did not evaluate the influence of gender, age, marital status, and educational level on patient satisfaction similar to the study conducted by Hall and Press (1996), believing that variables such as sex, age, marital status, education, gender do not have a strong influence on patient satisfaction. However, studies have shown that demographic variables except gender have profound influence on satisfaction (Aragon and Gesell, 2003) while Soleimanpour, Gholipouri Salarilak, Raoufi, Vahidi, Rouhi, Ghafouri, Soleimanpour's, (2011) demonstrated that those with higher education were less satisfied, but there was no significant relationship between marital status, occupation, gender, work shift and satisfaction level..

Table 1 – Respondents' Demographic Characteristics

Gender	Male		Female		Total
Frequency	35		65		85
Percentage	35%		65%		100
Age group	18-24	25-29	30-34	35-39	40+
Frequency	45	16	18	5	5%
Percentage	45%	16%	18%	5%	15%
Educational Level	SSCE/NCE/OND	HND/HND	M.Sc.	Others	
Frequency	25	54		6	
Percentage	25%	54%	15%	6%	

Source: Field Survey, 2012

Issues Relating to Waiting Time and Quality Service Delivery

Delivery of quality medical service is function of various components, of which waiting time is very important factor; formed the focus of the section. Six issues relating to waiting time and quality service delivery at the health centres were presented to the respondents to rank in order of seriousness. Percentage of the responses was calculated as shown in table 2. The findings reveal that forty percent (40%) of the respondents admitted that they experience waiting time on visits while 27% describe the waiting time as normal and adequate. 52% of patients considered the waiting time as long while the rest 32% were satisfied with the length of the queue. Those that considered the waiting time as normal (27%) and satisfied with the length of the queue (32%) may enjoy talking and watching television provided to reduce boredom while waiting.

More than half, 44% of respondents claimed satisfactory when service delivery is evaluated on time performance while 30% of patients were not satisfied with level of promptness in service delivery. This finding is similar to Omidvari, Shahidzadeh, Montazeri A, Azin, Harirchi ,Souri 's (2008) report in Tehran and Senti and LeMire's 20011) in Midwest that long waiting causes less satisfaction.

On the behavior of medical personnel towards the patients, 72.5% of the respondents rated their actions as been friendly and accommodative (i.e customer oriented). This implies that doctors carefully handled the patients, listen to their complaints and created an atmosphere of care and trust. Customer oriented service is paramount for quality care because it allows time for friendliness, listening; and respectful, professional care for every patient (Finch, 2005). Previous studies (Senti and LeMire, 2011; Omidari, et al 2011; Gup, et al, 2012; Yeddula, 2012) supports this finding that customer oriented service environment enhances satisfaction.

Overall, majority of patient expressed satisfied with the service delivery in the health centres despite some patients dissatisfied with long waiting. This finding is similar to the outcomes of Soleimanpour (2011) and Gup, et al's (2012). 62% of patients rated the service delivery of these medical centres superior than other similar hospitals in the neigbourhood.

Also 72% claimed their services are reliability. It means that majority of the respondents are not first time visit and have been provided quality services which implies that they will be willing to recommend the health centres to others.

Table 2 – Results on Issues Relating to Waiting Time and Quality Service Delivery

S/N	Issues	Agree (%)	Disagree (%)
A1	Health centres waste time in service delivery	40	27
A2	Always long queues on visits	52	32
A3	Service delivery on time performance	44	30
A4	Medical personnel Behaviour -friendship and accommodation	72.5	16.5
A5	Superior service compared to other health care centres in the neigbourhood	62	28
A6	Service reliable after several visits	72	17

Issues Relating to Hospitals, Doctors and Patient Satisfaction

Table 3 depicts that the entire medical personnel responsiveness to patients' requests are extremely satisfactory (89%). Also, a considerable number of patients (89%) rated the medical personnel professionalism high in delivery their services. These responses confirmed the evaluation of comparison of patient expectation with actual service delivery. Majority of the respondents claimed that their expectations were met (80%). Meeting patients' expectations resulted to satisfaction with service delivery. This finding is in agreement but higher than Senti and Lemire's (2012) report which indicated that when realistic expectations are met overall satisfaction scores should improve. The respondents rated the system approach to service delivery as good (87%), while 32 (16%) of them rated the overall approach as excellent. Despite satisfactory responses, it amazing to know that more than half, 104(52%) of the respondents had experiences one disappointment or others in service delivery of these health centres.

Table 3– Results on issues relating hospitals and doctors and patient satisfaction

Rank	Issues	Poor (%)	Good (%)
B1	Level of medical personnel responsiveness to patients	11	89
B2	Personnel professionalism in handling patients	11	89
B3	Patient expectation with actual service delivery	17	80
B4	Health care system approach to delivering high quality services	13	87
B5	Past disappointment in service delivery	Yes (%)	No (%)
		48%	52%

Perceived Causes of Long Queues

Table 4 reveals the observed causes for long waiting time in these health centres. These factors are found in most Nigerian Hospitals, especially university and public funded health centres. In Nigeria, University Hospitals and General (Government) Health Centres have the high patient's patronage. Reasons have been that University Hospitals are endowed with more modern technologies and qualified personnel for effective and efficient medical service delivery while General Hospitals is a place of visit for common man. Therefore, large number of patients is received by these Health Centres on a daily basis. It was notice that few numbers of Doctors serve a high population of patients at these hospitals. Though, this has been a general trend in most standard hospital in Nigeria (Afolabi and Erhun, 2003; Thatcher, 2005; Umar, et al, 2011).

Patients jumping queue through the help of some staff was high in General Hospital. University Health Centre and Medicare have adopted the use of information technology in their operations. This really helps in managing patient waiting time and facilitating patient flow. But the situation is different in General Hospital that still relies on manual operations

which results to long search of patient card, physical movement of card from one office to another and patients wandering around from one unit to another.

Medical practitioners and health institute (Institute of Medicine) acknowledged that long waiting time results to patient dissatisfaction and had therefore recommended that majority (not less 90%) of patients should be served within 30 minutes of their scheduled appointment time (O' malley, Fletcher, Fletcher and Earp, 1993; Senti and Lemire, 2012 Gup, et al, 2012; Yeddula, 2012). This recommendation is difficult to achieved in General Outpatient Department of University Hospitals and Public Hospitals in developed countries talk less of developing country like Nigeria who has a ratio of doctor to patient as one per 25,000 against the World Health Organization (WHO) target of a doctor to 1000 patients (Latonte, Labonte, Sander, Schrecker, 2004).

This overcrowding situation accounted for the reason while the some respondents claimed that they had experienced disappointment with service delivery in time past. This is in contrast with the satisfactory responses indicated by majority of respondents on issues relating doctors, hospital and patients (see Table 3). Our findings revealed that despite the fact that patients experience waiting time (see Table 2), high percentage of respondents are satisfied with overall service delivery in these selected hospitals. This claim is consistent with the findings of Afolabi and Erhun (2003); Camacho, et al, (2006); Prasanna, Bashith and Sucharitha (2009) Senti and Lemire, (2012) Merkouris, et al (2013) but in contrast with Umar et al's (2011) findings where majority of patients were dissatisfied with service delivery because of long waiting time.

The waiting time before seeing the nurse, doctor, pharmacist, etc., should be made productive by organizing waiting process in line with patient's perspective by; (i) medically engage the patients by encouraging them to describe their previous medical experience and providing relevant health education on important issues and not allowing them to watching television, chatting, etc. (ii) equality treatment procedure; this reduces preferential treatment. (iii) Increase interaction with patients by providing more adequate communication with them. (iv) Medical personnel should be more friendly, caring, listen to patient's complaints and arrive in time and avoid unnecessary delay in service delivery.

Further research is required to examine other variables of patient satisfaction not included in this study and the concept of patient perception of waiting time in relation to patient satisfaction. This study was conducted at the moderate-sized hospitals in Sango-Ota, Ogun State, Nigeria, and hence, the findings may not be generally applicable in other settings not similar to these hospitals. However, despite these barriers, the study depicted how waiting time is an important factor of quality service delivery and patient satisfaction in this setting. Our findings agree with other studies in literature that revealed that there is relationship between waiting time and patient satisfaction (Camacho, et al, 2006; Prasanna, et al, 2009; Umar et al, 2011).

Table 4 – Perceived Causes of Long Queues

1. Large number of patients
2. Late arrival of Doctors
3. Fewer number of Doctor
4. Preferential treatment by medical personnel
5. Operations not computerized
6. Doctor waste time in seeing a patient

4. Conclusions

As we move towards patient-centred service delivery where more emphasize is on managing patients waiting time, time spent with the doctors, nurses, pharmacists, etc., and the entire service delivery process.

Reduced waiting time, adequate health care, professionalism, responsiveness to patients, friendly, adequate and purposive communication are among some important factors that improve patient satisfaction. This study has shown that a good numbers of the patients were satisfied with the service delivery despite experiencing long waiting time. Though, lengthy waiting line is evident in public hospital than the other private hospitals as demonstrated in the study. But this does not affect patient perception of quality care offered.

Part of the reasons may be because long waiting time is a general occurrence in Nigerian hospitals especially publicly funded health centres. Efforts should be made by hospital administrators and medical personnel to eliminate unnecessary delay in service delivery and where unavoidable the waiting time should be made productive. Also, emphasis should be directed toward training of medical personnel on how to design a productive waiting time process and deliver timely services. This implies that hospitals that manage wait times effectively and efficiently will experience significant improvement in patient satisfaction.

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