

Patients Preferences regarding Outpatient Appointments In A Nigerian Teaching Hospital.

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Abstract

Background

One of the major causes of long waiting time in outpatient clinics that affect patient satisfaction is the lack of a well-designed appointment system. The purpose of this study was to determine the appointment system patients prefer for their outpatient appointments and the reasons for the system currently in use in Jos University Teaching Hospital.

Methodology

A semi- structured interviewer administered questionnaire was used to collect data from the scheduling officers and 202 outpatient clients selected by multi stage sampling technique. Data was analysed using statistical package for social sciences (SPSS) version 25.

Results

Over seventy percent (70.3%) of respondents would prefer time specific (scattered) appointment while only 14.8% would prefer the single block appointment system currently in use in the hospital. The main reasons for using the single block appointment system are that it's easy and the other appointment systems will make the scheduling task difficult.

Conclusion

Only 14.8% of Jos University Teaching Hospital's outpatient clients prefer the single block appointment system used by the hospital to schedule outpatient appointments. Efforts should be made to use the time specific appointment system preferred by over 70% of the clients.

Key words: Patients, out-patient, appointment system, Preferences.

Date of Submission: 08-06-2019

Date of acceptance: 25-06-2019

I. Introduction

A striking and widely observable feature of outpatient clinics in Nigerian public hospitals is the excessively long-time which patients are obliged to wait before seeing their doctors. It is common to find that the average waiting time is several hours contrary to patients expectations and the patients charter of England that patients should not wait longer than 30 minutes before seeing their doctor.^{1,2,3,4,5,6,7,8} This long waiting time may be mainly due to the single block appointment system practiced by these hospitals which entails giving all the days' prospective patients the same appointment time before the beginning of the clinic and then serving them on a first come first serve basis. The single block appointment system inherently favours long waiting times since it requires all the patients of the day to arrive at the same time, before the commencement of the clinic and then wait until they are served.^{9,10}

The modified block and scattered (time specific) appointment systems spread the arrival of patients throughout the duration of the clinic and thus reduces waiting time. In modified block scheduling a smaller number of patients are assigned to smaller segments of time such as hourly throughout the clinic session.¹¹ Individual scheduling, the most commonly used scheduling technique in developed countries and some developing countries occurs when a single patient is scheduled for a specific point in time, with the timing of the appointments determined according to the supply of care providers and the mean time spent with each patient.^{9,10} Of the 3 common appointment types the scattered (time specific) system has been shown to produce the highest reduction in waiting time.^{12,13}

To keep patients waiting longer than absolutely necessary is clearly undesirable on humanitarian grounds. In addition, excessive waiting time in most users represents loss of man hours which could be better utilized for economic productivity and national development or leisure. Also, the congregation of many patients in hospital waiting rooms for several hours favours the spread of communicable diseases like tuberculosis and

increases the burden of nosocomial infections in our hospitals. This highlights the need for an appointment system that will facilitate reduction in waiting times to a level that patients will not have to wait longer than 30 minutes before seeing their doctors. Long waiting times in outpatient clinics negatively affect patients' satisfaction and currently, organizations interested in quality services that satisfy their clients always work to reduce waiting times.¹¹

In the past it was considered acceptable to expect clients in outpatient clinics to wait for several hours before they are attended to by their doctor. However, clients' expectations are being shaped by service providers in other industries and some private providers who give prompt service, and this may no longer be considered to be the case. Also, an increasing number of clients who are having the benefit of receiving care in more developed countries where time specific appointments are given, and clients do not have to wait for hours to be served are unable to understand why such an appointment system is not in operation in some Nigerian public health facilities.

In spite of this, many Nigerian public hospitals including the Jos University teaching Hospital (JUTH) continue to give single block appointments requiring all booked clients to arrive before the commencement of the clinic and wait for their turn to be served however long this takes. It is unclear why the hospital practices this appointment system, and although patients continue to honour it, it has not been determined if it is their preferred system. This study therefore aimed to determine the type of appointment patients would prefer to be given for their outpatient clinics.

II. Methodology

This facility based cross-sectional study was carried out in Jos University Teaching Hospital, a 620 bedded referral centre located in Jos, Plateau state, North Central Nigeria.

Study Design: Facility based cross-sectional study

Study Location: The study population consisted of patients attending outpatient clinics in the Jos University Teaching Hospital, Jos and the record officers responsible for scheduling appointments in the selected clinics.

Study Duration: The study was carried out from February 2018 to March 2018.

Sample size Determination: the sample size for patients attending outpatient clinics was determined using the sample size formula for populations less than 10,000.¹²

$$N_f = n/1 + (n/N) \text{ where } n = Z^2 pq/d^2$$

Z = standard normal deviate at 95% confidence level = 1.96, P = prevalence of the factor under study, 84% (0.84) from a previous study¹³, q = complementary factor for $q = 1 - p$, N = average number of targeted population (i.e., average number of patients attending the 3 clinics daily) = 195, N_f = minimum required sample size (for population less than 10,000), d = precision/tolerable margin of error = 5% (0.05).

Therefore, minimum required sample size was calculated to be 196 and this was increased to 202 to make up for possible non-response. All the record officers responsible for scheduling appointments in the selected outpatient clinics were studied.

Sampling Procedure: A multi stage sampling technique was used to select study subjects. Three outpatient Department clinics, the General outpatient Department clinic (GOPD), the medical outpatient Department clinic (MOPD) and the surgical outpatient Department clinic (SOPD) were selected by balloting from the list of ten outpatient clinics in the hospital. A systematic sampling method was then used to select study subjects in each of the selected clinics using the clinic's appointment register. Proportion to size technique was used to determine the number of subjects selected from each of the clinics by dividing the number of eligible patients in each of the clinics by the cumulative total of all the eligible patients in all the three outpatient clinics multiplied by the sample size for the study. Thereafter, sampling interval from each of the clinics was determined by dividing the number of booked patients for clinical appointment by the number of patients to be sampled from each of the clinics respectively. Furthermore, from the serialized lists of the eligible patients booked for each of the clinics simple random sampling technique by balloting was used to pick the first patients within the sampling interval and then patients sampling was done at the sampling interval per clinic until the sample size was met. The patient population in each clinic was estimated by adding the total number of patients booked for the clinic appointment in the preceding three months.

Inclusion Criteria: All adult clients of selected outpatient clinics who were attending the clinic on appointment were eligible to participate in the study.

Exclusion Criteria: Those who were attending the clinic for the first time and those who were attending as emergencies without prior appointment. Those who met the inclusion criteria but refused consent were excluded.

The study was approved by the Jos University Teaching Hospital’s Institutional Health Research Ethics Committee.

Procedure Methodology:

Participants were informed about the study objectives and procedures and an informed consent obtained before being enrolled.

A semi structured interviewer administered questionnaire was used to collect data from patients about the type of appointment they would prefer to be given when utilizing the hospital’s outpatient services.

A semi-structured interviewer administered questionnaire was also used to collect data from the record officers responsible for scheduling appointments in the studied clinics about the type of appointment used in scheduling outpatient appointments and their reasons for choosing the particular appointment system.

Statistical Analysis:

All information obtained was processed and analyzed using the Statistical Package for Social Sciences (SPSS) version 17. Age of the respondents was summarized using mean and standard deviation where assumptions of normality were fulfilled otherwise median and interquartile range was used. Categorical variables were presented using frequency tables.

III. Results

Two hundred and two patients and ten record officers were studied. Most of the patients (51.5%) were male and married. Majority of the record officers were male. Their mean age was 39.6 ± 6 years. Tables 1 show the socio-demographic characteristics of studied patients.

Table 1: Socio-demographic Characteristics of Patients in Outpatient Clinics

Characteristics	Frequency	Percentage
Sex		
Male	104	51.5
Female	98	48.5
Level of Education		
None	25	12.4
Primary	20	9.9
Secondary	59	29.2
Tertiary	98	48.5
Marital status		
Single	51	23.2
Married	148	73.3
Divorced	1	0.5
Seperated	2	1.0
Median age	40.0 years (IQR 32-55)	

Sixty percent of the studied record officers were male. All of them were using the single block appointment system to schedule outpatient appointments and only 20% of them would be happy to practice the scattered appointment system (table 2).

Table 2: Characteristics of Health Record Officers and Types of Appointments Practised.

Characteristic	Frequency	Percentage
Mean Age	39.6±5 years	
Male	6	60
Female	4	40
Clinic covered		
GOPD	4	40
MOPD	3	30

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SOPD	3	30
Practising single block appointment	10	100
Happy to practice scattered appointment	2	20

Over seventy percent of respondents would prefer time specific (scattered) appointment while only 14.8% would prefer the single block appointment system (Table 3).

Table 3: Respondents' Preferred Type of Appointment

Type of appointment	Frequency	Percentage
Block appointment	30	14.85
Modified block	30	14.85
Time specific (scattered)	142	70.30
Total	202	100.00

Record officers' reasons for using the single block appointment system are that it is easier and the other appointment systems will make the scheduling work difficult (table 4).

Table 4. Health record officers Reasons for Using Single Block Appointment system

Reason	Frequency	Percentage
It is easier	10	100
Scattered appointment is difficult	8	80
Most patients come from long distance	1	10

multiple responses allowed

IV. Discussion

To our knowledge this is the first study in Nigeria to determine the type of appointment system patients would prefer to be given when they utilise the outpatient services of a public health facility. The main findings are that the hospital operates the single block appointment system because it is easier than the other appointment systems but, most of the hospital's patients would prefer a time specific (scattered) appointment system where each patient would see a doctor at the scheduled time or a few minutes afterwards. This is not unexpected because patients value their time and the single block appointment system currently in use wastes patients time since it favours long waiting times.^{9,10} It also makes planning on appointment days difficult for patients since it is impossible for them to know when they will see their doctor even when they arrive at their appointed time, which is usually the same for all the patients of the day. To reduce this difficulty some patients who have other engagements for the day arrive very early and queue at the point of registration well before the arrival of the registration officers (record officers) just to increase their chance of seeing their doctor early enough to be able to attend to other engagements.

Although majority of respondents would prefer a specific time appointment, only 20 % (twenty percent) of record officers responsible for scheduling appointments would be happy to schedule such appointments. The main reason for this attitude is that providing time specific appointments (individualised appointments) is difficult work for the scheduling officers. It is true that giving individualised appointments requires more efforts on the part of the scheduling officers than simply telling all patients to come at the same time at the beginning of the clinic. However, many health facilities in other parts of the world and some private health facilities in Nigeria currently practice it suggesting that it is doable even in our environment.^{14,15,16,17} In addition such an appointment system reduces waiting time compared to the single block appointment system currently in use.^{9,18,19,20} Further more, since long waiting times reduce patient satisfaction and even utilisation of health services an appointment system that reduces waiting time would be welcomed by all concerned including patients, Doctors and scheduling officers.²

In our study, over 70 % (seventy percent) of patients would prefer individualised (scattered) appointment system so, we recommend that the hospital considers implementing this appointment system. Only 20% of the scheduling officers in our study would be happy to schedule patients using this appointment system indicating that there is need to educate and re-orientate all the hospital's scheduling officers before commencing implementation. Since it appears the record officers concern stem from inadequate skills additional training and

computer hard ware and software should be provided for them before the appointment system is rolled out. Even then, it might be advisable to start with a pilot in one clinic and learn lessons and hone skills before the system is introduced in all of the hospital's outpatient clinics.

III. Conclusion

Majority of Jos University Teaching Hospital's outpatient clients would prefer a time specific appointment rather than the single block appointment system currently used to schedule outpatient appointments. Efforts should be made to introduce the single block appointment system preferred by majority of patients.

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Tyavyar J. Akosu. "Patients Preferences regarding Outpatient Appointments In A Nigerian Teaching Hospital." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 6, 2019, pp 65-69.