

Waiting time and patient satisfaction at the General Outpatient Department of a Nigerian Tertiary Hospital.

¹B.M. Ibitoye, ²A.G. Ampofo, ¹J.A. Afolayan, ³D.O Alebiosu

1.Department of Nursing Science, College of Health Sciences, University of Ilorin, Ilorin, Kwara State, Nigeria. 2. Garden City University, Kumasi, Ghana. 3. University College Hospital, Ibadan, Oyo State, Nigeria

Abstract

Patient satisfaction is one of the key indicators of the quality of care and treatment delivered by the doctors, nurses, paramedical staff and the hospital as a whole. One of the key influencing factor of patient satisfaction is waiting time. Hence, this study seeks to determine the waiting time and the patient satisfaction with the services rendered at the General out-patient department of the University of Ilorin.

A descriptive, cross-sectional survey was conducted. Respondents were purposively selected, and informed consent was obtained for each of them. Structured questionnaires were distributed to the respondents and there was a response rate of 98%. Data collected was analysed using the Statistical Product Service Solution (SPSS) version 20. Majority of the respondents were males (55.1%), with a mean age of 40 years. Slightly less than half (49%, n=48) had had tertiary education. The longest waiting time was recorded at the doctors' offices, with 81.6% waiting for more than 2 hours. Most of the respondents (69.4%, n=68) spent 3-4 hours in the hospital (i.e. from arrival to exit). Majority of the respondents (89.8%, n=88) were dissatisfied with the waiting time, and 49 (50%) were satisfied with the overall performance of hospital.

The waiting time at the hospital is too long compared to the recommendation of the Institute of Medicine. There is the need to devise innovative ways such as the process team approach, in shortening the waiting time at the hospital. There is a need for more doctors to be employed. Also, further evaluation of the services rendered at the records department should be conducted.

Keywords: Patient satisfaction, Outpatient department, Health services, waiting time

Introduction

Patient satisfaction is the evaluation of healthcare services from the user's perspective. In a society, like Nigeria, where orthodox medicine is in constant competition with traditional medicine, spiritual healers and anti-orthodox health beliefs, it is imperative that patients are satisfied with healthcare services in order to promote utilization and reduce morbidity and mortality rates. Over the years, patient satisfaction has become an important indicator to measure the quality of care in healthcare facilities. The data from patient satisfaction surveys helps in identifying gaps in health care services which serves as a basis for quality improvement. Hence, in some countries such as France, it is mandatory for hospitals to conduct routine patient satisfaction surveys. Also, a 20-year study indicated that higher patient satisfaction is associated with higher adherence to therapy. Therefore, it is imperative that every healthcare facility evaluate patients' satisfaction with their services.

In Nigeria, the establishment of the Service Compact with All Nigerians (SERVICOM) in 2004 spearheaded a momentum to improve the quality of healthcare services. Despite the establishment of this quality improvement service, the periodic evaluation of patient satisfaction with services is not done in most for Nigerian hospitals. Nevertheless, in recent times, many researchers are gaining interest in evaluating patient satisfaction with Nigerian healthcare services.

Research has shown that patient satisfaction is influenced by the technical competence of health professionals, waiting time, health professionals' communication with patients, length of time with doctors, physical environment and pain control.. A commonly investigated factor is waiting time. In Nigeria, patients do not make prior appointments to see doctors like in developed countries such as the UK. Rather, patients wait in long queues in out-patient departments before they can have access to medical services. It has been widely reported that the waiting time in Nigerian hospitals are often long. It is common to see health workers giving preferences to their friends and relatives hence causing displeasure amongst the waiting patients. This contributes to a high level of patient dissatisfaction with healthcare services. It further deters future patronization of medical services. Long waiting lines are mostly described as inefficient, because they do not generate any profit for health providers and they are stressful for the patients.

Correspondence to:

B.M. Ibitoye

Department of Nursing Science,
College of Health Sciences,
University of Ilorin,
P.M.B. 1515, Ilorin, Kwara State, Nigeria
Mobile Number: +2348107671482
Email: ibitoye.bm@unilorin.edu.ng;
Bukky17ibitoye@gmail.com

A study in a tertiary hospital in Northern Nigeria showed that the overall patient satisfaction was above average; nevertheless, the patients noted dissatisfaction with waiting and registration time and the condition of the consulting room. Similarly, a cross-sectional study in South-West Nigeria demonstrated that 97% of the respondents were satisfied with the services their children received but 73.5% were dissatisfied with the toilet sanitation. Similar cross-sectional studies in hospitals in other parts of Nigeria have indicated average-high satisfaction with healthcare services.. Most of these studies indicated that a significant number of their respondents were dissatisfied with the waiting time at the hospitals. To the best knowledge of the researchers, no study on patient satisfaction and waiting time has been conducted at any tertiary hospital in North-Central Nigeria. Also, this study will provide the hospital with information that can guide quality improvement in the hospital. Therefore, the aim of this study is to evaluate patient satisfaction and waiting time at a tertiary healthcare facility in North Central Nigeria.

Materials and method

This is a cross-sectional descriptive survey which was conducted at the General Out-Patient Department (GOPD) of the University of Ilorin Teaching Hospital (UITH), Ilorin, Kwara State. The study participants were patients attending the GOPD within a period of 1 week. The data collection instrument was a structured questionnaire. The questionnaire was adapted from the study of Adamu and Oche. Few changes were made to the questionnaire to suit the objectives of this study. The questionnaire was evaluated by a team of nursing researchers for face and content validity and the necessary corrections were made based on their recommendations. The reliability of the questionnaire has been established in the previous study, through a pilot study in another tertiary health institution. The questionnaire consists of 3 sections. Section A is on the respondents' socio-demographic data. Section B assessed the waiting time and the patient satisfaction with the services of various

GOPD sub-departments namely: the record's office, doctors' offices, nurses' station and laboratory services. Section C assessed the overall satisfaction of patients with GOPD services and the waiting time. The questionnaire is written in English but it was translated into the native language, Yoruba, when necessary. The respondents were approached at the end of their hospital visit at the GOPD. Of the 100 questionnaires administered, there was a response rate of 98%.

The respondents were purposively selected using the following criteria. The inclusion criteria are: patients above the age of 18 years; patient who have utilized all GOPD services including laboratory services. The exclusion criteria are: patients who were unconscious, lethargic or incapable of self-assessment; patients who were transferred to the ward for admission. The data was analysed using Statistical Product Service Solution (SPSS) version. Data were presented in frequency tables and the hypothesis were tested with chi-square. P values less than/equal to 0.05 were considered significant. In assessing the patient satisfaction, when patients respond as 'satisfied' and 'very satisfied' it is interpreted as satisfied; when patients respond as 'dissatisfied' and 'very dissatisfied' it is interpreted as dissatisfied.

Results

Table 1 shows the socio-demographic data of the respondents. Majority (55%, n=54) were males, 54%(n=53) of the respondents were Muslims and 92% (n=90) lived in an urban area. The mean age was 40 years old and 49% (n=48) of the respondents had had tertiary education. See Table 1 for the demographic data of the respondents.

Averagely, the mean waiting time from the point of arrival to the point of exit is 211.2 minutes. Approximately 22% (n=22) of the participants spent more than 240 minutes. The mean waiting time at the doctors' office was 124 minutes, making it the longest waiting time for any GOPD service in the hospital. The average waiting time at the nurses' station was 57 minutes. Majority of the participants (89.8%, n=88) were dissatisfied with the waiting time. Figure 1 and 2

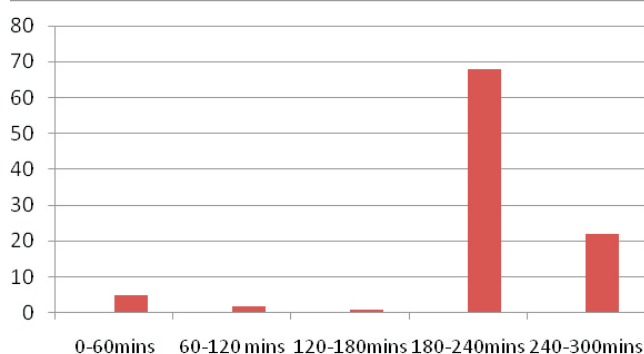


Figure 1: Total waiting time in the hospital (Arrival to Exit)

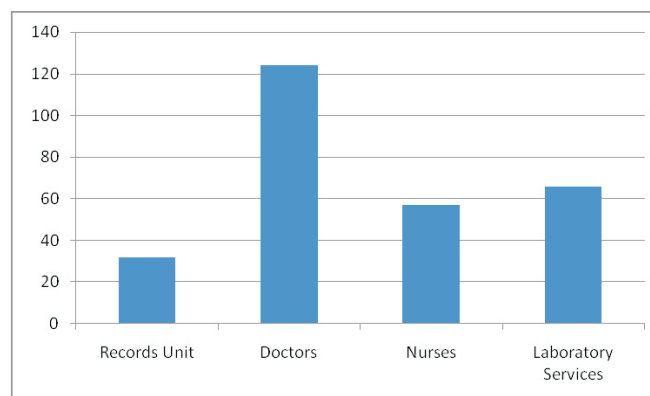


Figure 2: Average waiting time at the various GOPD services

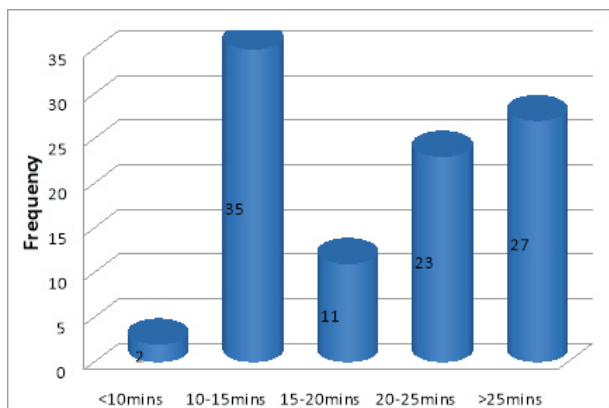


Figure 3: Duration of Time Spent with the Doctor

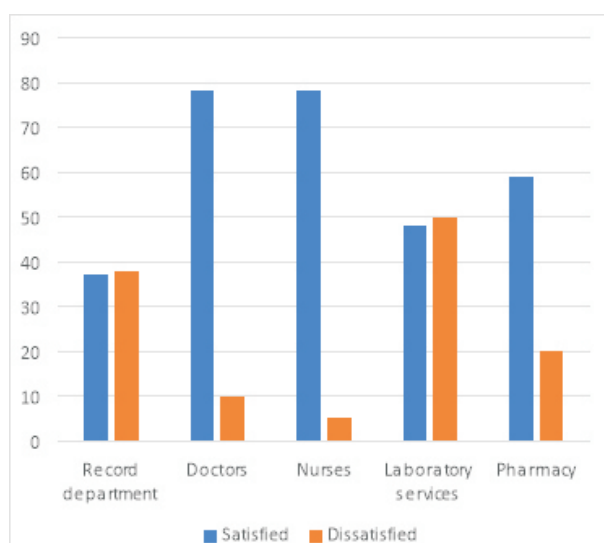


Figure 5: Patient satisfaction with the various GOPD services

show the results on waiting time at GOPD and its various sub-departments.

Table 2 shows patient satisfaction with specific variables at the various sub-department at the GOPD. Figure 3 shows the patient satisfaction with the services rendered by each of the sub-departments. For records department, 55 (56.1%) of the respondents were satisfied with the conduct of the staff at the records department. More respondents (38.6%, n=38) were dissatisfied with the registration process, compared with the 37 (37.4%) who were satisfied or very satisfied. Majority of the participants (95, n=97%) indicated satisfaction with the cleanliness of the waiting area at the records department.

In the nursing stations, 63 (64.3%) of the respondents were satisfied or very satisfied with the conduct of the staff. Majority of the participants (75%, n=74) were satisfied with the cleanliness of the waiting area at the nurses' station, while 78 (79.6%) participants were satisfied or very satisfied with the nursing

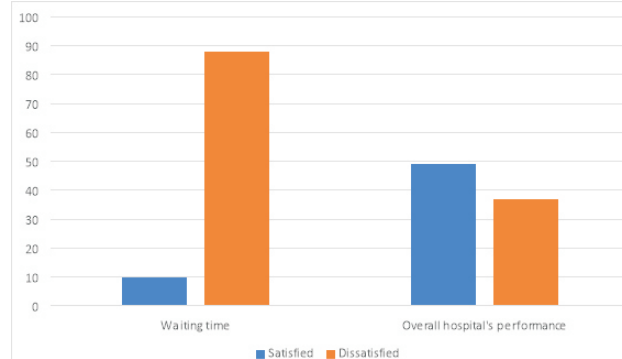


Figure 4: Patient satisfaction with waiting time and overall hospital performance

Table 1: The socio-demographic data of the respondents (N=98)

Variable	Responses	Frequency (%)
AGE	18-24	10 (10.2)
	26-34	23 (23.5)
	35-44	18 (18.4)
	45-55	13 (13.3)
	55-64	24 (24.5)
	65 and above	10 (10.2)
SEX	Male	54 (55.1)
	Female	44 (44.9)
RELIGION	Christianity	45 (45.9)
	Islam	53 (54.1)
TRIBE	Fulani	1 (1)
	Hausa	2 (2)
	Igbo	15 (15.3)
	Yoruba	76 (77.6)
	Others	4 (4.1)
PLACE OF RESIDENCE	Urban	90 (90.8)
	Rural	8 (8.2)
EDUCATIONAL LEVEL	No formal education	9 (9.2)
	Primary	12 (12.2)
	Secondary	29 (29.6)
OCCUPATION	Tertiary	48 (49.0)
	Student	9 (9.2)
	Farmer	8 (8.2)
	Trader/Business	49 (50)
	Civil servant	27 (27.6)
	Contractor	3 (3.0)
	Others	2 (2.0)

services rendered to them. Also, more than half (56.1%, n=55) of the respondents had health talks on various topics while waiting and 78.2% (n=43) were satisfied with the health talks.

Patient satisfaction with doctors' service was high with 79.5% (n=78). Most of the participants (69, n=70.4%) indicated that they were satisfied with the care rendered by the doctors, and 86 (87.8%) participants were satisfied with the time spent with the doctor for consultation. Figure 3 shows the amount of time the patients spent with the medical doctors.

Figure 4 shows the overall satisfaction with the hospital's performance and waiting time. Overall, 49 (50%) respondents indicated satisfaction with the general services rendered at the GOPD. Most participants (89.8%, n=88) reported that the waiting time before receiving GOPD services was too long. Less than half of the participants (44, n=44.9%) attributed the cause of the long waiting time to many patients, and 39 (39.8%) attributed it to small number

of doctors available to see them. Despite these levels of dissatisfaction, majority (n=71,72.4%) stated that they would recommend the services to other people. The major source of their dissatisfaction was the waiting time.

Discussion

The aim of this study is to evaluate patient satisfaction and assess the waiting time at a tertiary hospital in North Central Nigeria. The mean overall waiting time was 211.2 minutes at various service points from the point of entry at the GOPD to the point of exit. This is higher than 168 minutes recorded at the GOPD at Usmanu Danfodiyo Teaching Hospital, Sokoto. However, a study in 2011 at the same hospital recorded a mean waiting time of 85 minutes though it was done at the medical, surgical, paediatrics, obstetrics and gynaecology clinics and the GOPD. In contrast, a study in Vietnam recorded a mean waiting time of 42.05 minutes in 2015. It is worth noting that the data collection tools for the studies conducted in Nigeria were questionnaires; in other words, the waiting time was not objectively collected. Whereas the study in Vietnam used a computerised software to generate the precise waiting time of each of the patients. Hence, for future studies on waiting time in Nigeria, researchers should consider using a more objective, precise measure of the waiting times. This analysis addresses the need for the precision of the waiting time, and not the accuracy of the data collected using questionnaires.

The Institute of Medicine (IOM) recommends that, at least 90% of patients should be seen within 30 minutes of their scheduled appointment. In this study, the longest mean waiting time was recorded at the doctor's office; where patients waited for more than 120 minutes before they were seen by a doctor. This is much higher than the 60 minutes recorded at National Hospital, Abuja. According to the respondents, the long waiting time recorded in this study is due to the poor doctor-patient ratio in Nigeria. This is a common finding in most health care centres across Nigeria due to the shortage of medical doctors and other health care providers. According to the World Health Organization (WHO), the doctor-patient ratio should be target 1:1000. In Nigeria, the ratio is 4:10,000. With this ratio, few doctors are required to see a large number of patients, hence the long waiting time. Similar reasons have been reported in other studies conducted in Nigeria and other countries. Hence, it is not surprising that 90% of the participants were dissatisfied with the waiting time. According to a study in China, patients are satisfied when the waiting time does not exceed 37 minutes.

Long waiting time is major problem in Nigerian hospitals and many countries globally. Different approaches have been adopted by different

studies to address this problem. A study in China proposed that adopting the process improvement team approach can aid in addressing this problem. This approach involves formulating a multidisciplinary taskforce whose primary function is to monitor, evaluate and develop interventions to improve the hospital's waiting time. This team will collect data, analyse the collected data, identify the causes of the long waiting times, develop interventions with clear objectives and evaluate the interventions. Another approach of addressing waiting time is appointment scheduling. This approach involves the booking of doctor's appointments via phone call or internet prior to coming to the hospital/clinic. The objective of appointment scheduling is to maintain the interests of both the doctors and patients, i.e. patients have a short waiting time and doctors have a resting period between consultations. This approach has its challenges; which includes: arriving late for the appointments, not showing up for the appointment and doctors' exceeding the scheduled appointment periods hence causing delays for subsequent patients. In country like Nigeria, adopting appointment scheduling for GOPDs may be not easy to implement. According to the CIA Factbook, almost 150 million people have access to a mobile phone but this does not translate into having mobile airtime or internet access. Also, 40% of the population are illiterate and nearly 50% live in extreme poverty. These factors can prevent people from booking appointments and resort to the use of herbal concoctions and spiritual leaders for healing from curable disease conditions. Hence, implementing this approach in Nigeria should be done cautiously.

Despite the long waiting time, patients were averagely satisfied with the services of the hospital and majority indicated that they will recommend it. The level of patient satisfaction (50%) is similar to some studies in Nigeria: Umar et al. recorded 45% at the Usmanu Danfodiyo University Teaching Hospital, Sokoto in 2011 while Adamu and Oche recorded 52% in the same hospital. Other studies recorded higher values: Ogunfowakan and Mora recorded 63.6% at the National Hospital, Abuja while Obamiro recorded 87% in selected hospitals in Ogun State. Evidently, the level of patient satisfaction varies across the country; it appears better ratings exist in the South-Western geopolitical zone than other zones. However, this study is limit methodologically to make this conclusion. A systematic review or meta-analysis on the waiting time in Nigerian hospitals should be conducted to pool the findings of all these primary studies together in order to determine the actual waiting time in Nigerian hospitals. A sensitivity analysis can also be conducted to compare the waiting time in the various state or geopolitical zones. In Ethiopia, Anteneh et al. reported 80.1%; in Iraq, Al-Assaf recorded 73.6%. These studies were conducted in one hospital in each country, hence it may

not be representative of the situation in the whole country.

In all the various departments except the records department, high patient satisfaction was recorded. The shortest waiting time and one of lowest rates of patient satisfaction were both recorded at the record department. Hence, the dissatisfaction may not be due to the waiting time. The lowest rate of patient satisfaction was recorded at the pharmacy. It is necessary that the hospital conducts an evaluation of the record department and pharmacy is conducted to identify the cause of this low level of patient satisfaction.

Patients were generally satisfied with the cleanliness of the hospital environment, care and empathy shown by the nurses and doctors. This is very commendable as effective communication and care enhances nurse-patient and doctor-patient relationships which facilitates the history-taking and improves compliance with medical/nursing advice. The high level of satisfaction recorded for the health talk which is delivered while patients are waiting, can be reinforced by showing health awareness videos on televisions at the waiting rooms.

Education and occupation were the only variable that were found to have a significant association with the overall patient satisfaction. Majority of the participants were educated with a form of employment. Hence, they may have a better understanding of low doctor-patient ratio in the country, hence may not base their overall satisfaction on waiting time. This may explain the high dissatisfaction with waiting time and the high satisfaction with overall services. Despite the wealth of information provided by this study, it has limitations. The small sample size may limit the generalizability of the findings to other populations. Also, the waiting time was determined retrospectively, hence it may be subject to recall bias.

Conclusion and Recommendations

Patient satisfaction with health services at the University of Ilorin Teaching Hospital is high, however, patients are highly dissatisfied with the waiting time. The process team approach should be adopted by the hospital to address the challenge of the waiting time. Also, in future studies, objective measures should be used in measuring the waiting time.

References

1. Carretta E, Bond TG, Cappiello G, Fantini MP. Looking Through the Patients' Eyes. *Journal of Patient Experience*. 2017 [accessed 2019 Feb 13];4(3):121-128. <http://www.ncbi.nlm.nih.gov/pubmed/28959717>
2. Al-Abri R, Al-Balushi A. Patient satisfaction survey as a tool towards quality improvement. *Oman medical journal*. 2014 [accessed 2019 Feb 13];29(1):3-7.

- <http://www.ncbi.nlm.nih.gov/pubmed/24501659>
3. Welch SJ. Twenty Years of Patient Satisfaction Research Applied to the Emergency Department: A Qualitative Review. *American Journal of Medical Quality*. 2010 [accessed 2019 Feb 13];25(1):64-72. <http://journals.sagepub.com/doi/10.1177/1062860609352536>
4. Iliyasu Z, Abubakar I, Abubakar S, ... UL-NJ of, 2010 undefined. Patients' satisfaction with services obtained from Aminu Kano Teaching Hospital, Kano, Northern Nigeria. *Nigerian Journal of Clinical Practice*. 2010 [accessed 2019 Feb 12];13(4):371-378. <https://www.ajol.info/index.php/njcp/article/download/64133/51930>
5. Szyca R, Rosiek A, Nowakowska U, Leksowski K. Analysis of factors influencing patient satisfaction with hospital treatment at the surgical department. *Polish Journal of Surgery*. 2012 [accessed 2019 Feb 13];84(3):136-143. <https://www.degruyter.com/view/j/pjs.2012.84.issue-3/v10035-012-0022-3/v10035-012-0022-3.xml>
6. Yacavone RF, Locke GR, Provenzale DT, Eisen GM. Quality of life measurement in gastroenterology: what is available? *The American Journal of Gastroenterology*. 2001 [accessed 2019 Feb 13];96(2):285-297. <https://www.sciencedirect.com/science/article/pii/S0002927000023029>
7. Heinrich N, Wübker A, Wuckel C. Waiting times for outpatient treatment in Germany: New experimental evidence from primary data. *Jahrbücher für Nationalökonomie und Statistik*. 2018 [accessed 2019 Feb 13];238(5):375-394. <https://www.degruyter.com/view/j/jbnst.2018.238.issue-5/jbnst-2018-0025/jbnst-2018-0025.xml>
8. Adamu H, Oche M-. Patient satisfaction with services at a general outpatient clinic of a tertiary hospital in Nigeria. *Br J Med Med*. 2014 [accessed 2019 Feb 13];4(11):2182-202. https://www.researchgate.net/profile/Habibullah_Adamu/publication/272757463_Patient_Satisfaction_with_Services_at_a_General_Outpatient_Clinic_of_a_Tertiary_Hospital_in_Nigeria/links/56e829a408aacc65cb45e9630/Patient-Satisfaction-with-Services-at-a-General-
9. Abodunrin O, Adeomi A, Adeoye A. Clients' satisfaction with quality of healthcare received: Study among mothers attending infant welfare clinics in a semi-urban community in South-western Nigeria. *Sky Journal of Medicine and Medical Sciences*. 2014 [accessed 2019 Feb 13];2(7):45-051. <http://www.skyjournals.org/SJMMS>
10. Umeano-Enemuoh JC, Onwujekwe OE, Uzochukwu BSC, Ezeoke OP. Patients' Satisfaction and Quality of Care in a Tertiary Institution in Southeast Nigeria. *International Research Journal of Basic and Clinical Studies*. 2014 [accessed 2019 Feb 13];2(2):14-19. file:///C:/Users/alice/Desktop/For waiting time/Patients-satisfaction-and-quality-of-

- care-in-a-tertiary-institution-in-southeast-nigeria.pdf
11. Abiodun A. Patients' satisfaction with quality attributes of primary health care services in Nigeria. *Journal of Health Management*. 2010 [accessed 2019 Feb 12];12(1):39-54. <http://journals.sagepub.com/doi/abs/10.1177/097206340901200104>
12. Oche M, Adamu H. Determinants of patient waiting time in the general outpatient department of a tertiary health institution in north Western Nigeria. *Annals of medical and health sciences* . 2013 [accessed 2019 Feb 13];3(4):588-592. <https://www.ajol.info/index.php/amhsr/article/view/99631>
13. Umar I, Oche M, Umar A. Patient waiting time in a tertiary health institution in Northern Nigeria. *Journal of Public Health and Epidemiology*. 2011 [accessed 2019 Feb 13];3(2):78-82. <http://www.academicjournals.org/journal/JPHE/article-abstract/72CECBA1119>
14. Tran TD, Nguyen U Van, Minh Nong V, Tran BX. Patient waiting time in the outpatient clinic at a central surgical hospital of Vietnam: Implications for resource allocation. *F1000Research*. 2017 [accessed 2019 Feb 13];6:454. <https://f1000research.com/articles/6-454/v3>
15. Ogunfowokan O, Mora M. Time, expectation and satisfaction: Patients' experience at National Hospital Abuja, Nigeria. *African Journal of Primary Health Care & Family Medicine*. 2012 [accessed 2019 Feb 13];4(1). <https://phcfm.org/index.php/phcfm/article/view/398>
16. World Health Organization (WHO). Global Health Observatory (Data). [accessed 2019 Feb 13]. https://www.who.int/gho/health_workforce/physicians_density_text/en/
17. World Health Organization (WHO). Nigeria. 2015 [accessed 2019 Feb 13]. https://www.who.int/workforcealliance/countries/Nigeria_En.pdf
18. Nyongesa M, Onyango R, Kakai R. Determinants of clients' satisfaction with healthcare services at Pumwani Maternity hospital in Nairobi-Kenya. *Int J Soc Behav Sci*. 2014 [accessed 2019 Feb 13];2(2):011-7. https://www.researchgate.net/profile/Rose_Kakai/publication/261361033_Determinants_of_clients'_satisfaction_with_healthcare_services_at_Pumwani_Maternity_Hospital_in_Nairobi_Kenya/links/0a85e533fb6a5488a8000000/Determinants-of-clients-satisfaction-with-
19. Sun J, Lin Q, Zhao P, Zhang Q, Xu K, Chen H, et al., Reducing waiting time and raising outpatient satisfaction in a Chinese public tertiary general hospital-an interrupted time series study. *BMC public health*. 2017 [accessed 2019 Feb 12];17(1):668. <http://www.ncbi.nlm.nih.gov/pubmed/28830400>
20. Kaandorp GC, Koole G. Optimal outpatient appointment scheduling. *Health Care Manage Sci*. 2007 [accessed 2019 Feb 12];10:217-229. <http://www.math.vu.nl/>
21. Central Intelligence Agency. World Factbook. [accessed 2019 Feb 13]. <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>
22. Obamiro JK. Effects of waiting time on patient satisfaction: Nigerian hospitals experience. *J Econ Behav*. 2013 [accessed 2019 Feb 13];3(1):117-126. http://ijeb.faa.ro/download/472_7-Obamiro.pdf
23. Asefa A, Kassa A, Dessalegn M. Patient satisfaction with outpatient health services in Hawassa University Teaching Hospital, Southern Ethiopia. *Journal of Public Health and Epidemiology Full Length Research Paper*. 2014 [accessed 2019 Feb 13];6(2):101-110. <http://www.academicjournals.org/JPHE>
24. Al-Assaf N. Factors related to patient satisfaction with hospital health care. *IRAQI JOURNAL OF COMMUNITY MEDICINE*. 2009 [accessed 2019 Feb 13];22(4):218-223. <https://www.iasj.net/iasj?func=article&aId=59886>