

Patients' waiting experiences and satisfaction with oral care delivery at two levels of care in Ibadan, Nigeria

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Abstract

Background: Patients waiting experiences at the dental centre and their satisfaction with services rendered by the health care team have not been fully explored and may be important factors that have influenced the pattern of utilization of dental services in this part of the world. The aim of this study was to determine what patients' waiting experiences are, at two dental centres and find out how satisfied patients were with the services provided.

Methods: A cross sectional study was conducted at two dental centres in Ibadan, Oyo State, Nigeria over a period of twelve months. Data was collected using a 29-item structured questionnaire. Information sought were patients' biodata, reasons for presenting at the dental centre, time on entry into the centre, their experiences from point of entry into the dental centre to consultation with the dentist and how satisfied they were with the services rendered. Data were analyzed using SPSS version 22.

Results: Two hundred and sixty-six respondents participated in the study with a mean age of 36.3 ± 17 years. The mean waiting time at the Primary Oral Health Care Center (POHCC) and tertiary health centre (UCH) were 11.5 ± 17.0 and 102.3 ± 47.3 minutes respectively. Many (85.3%) were satisfied with the services offered by the dentist, 78.0% were comfortable while waiting to see the doctor. Patients attending the POHCC were more satisfied with the stage of dropping appointment cards but less satisfied with the stage of being called in to see the doctor (22.9%) and when with the doctor (20.6%) compared with patients attending UCH (13.3%) ($p < 0.005$).

Conclusion: Many patients were comfortable while waiting to be seen by the dentist and the majority were satisfied with the stages of service delivery. However, causes of dissatisfaction and discomforts experienced by some of the patients will have to be addressed.

Keywords: dental clinics, dental experiences, oral care, patient satisfaction, waiting time

Résumé

Contexte: Les patients en attente d'expérience au centre dentaire et leur satisfaction à l'égard des services rendus par l'équipe de soins de santé n'ont pas été entièrement explorés et pourraient être des facteurs importants ayant influé sur l'utilisation des services dentaires dans cette partie du monde. Le but de cette étude était de déterminer les expériences d'attente des patients dans deux centres dentaires et de déterminer dans quelle mesure les patients étaient satisfaits des services fournis.

Méthodes: Une étude transversale a été menée dans deux centres dentaires à Ibadan, dans l'État d'Oyo, au Nigeria, sur une période de douze mois. Les données ont été recueillies à l'aide d'un questionnaire structuré à 29-items. Les renseignements recherchés étaient les données biographiques des patients, les raisons de présenter au centre dentaire, l'heure d'entrée au Centre, leur expérience du point d'entrée dans le centre dentaire jusqu'à la consultation du dentiste et leur degré de satisfaction à l'égard des services rendus. Les données ont été analysées en utilisant SPSS version 22.

Résultats: Deux cent soixante-six répondants ont participé à l'étude avec un âge moyen de $36,3 \pm 17$ ans. Le temps d'attente moyen au Centre de Santé Buccodentaire Primaire (CSBP) et au Centre de santé tertiaire (CHU) était respectivement de $11,5 \pm 17,0$ et de $102,3 \pm 47,3$ minutes. Beaucoup (85,3%) étaient satisfaits des services offerts par le dentiste, 78,0% étaient à l'aise en attendant de voir le médecin. Les patients du CSBP étaient plus satisfaits de l'étape de la quittance des fiches de rendez-vous mais moins satisfaits de l'étape d'appel du médecin (22,9%) et quand avec le médecin (20,6%) par rapport aux patients de l'UCH (13,3%) ($p < 0,005$).

Conclusion: De nombreux patients se sentaient à l'aise en attendant d'être vus par le dentiste et la majorité était satisfaite avec les étapes de la prestation de services, mais les causes d'insatisfaction et d'inconfort vécues par certains patients devront être corrigées.

Mots-clés: Cliniques dentaires, expériences dentaires, soins buccodentaires, satisfaction des patients, temps d'attente

Introduction

The healthcare service is patient oriented, requiring continuous interaction between health care providers and patients, who are the receivers of care. It utilizes facilities and equipment and consumes a large volume of nursing care [1]. Public health systems are confronted with constantly rising costs of diagnostic facilities and treatment services that are becoming more and more specialized. On the other hand, resources (staff and finances) are limited, whereas the patient load for treatment in the clinic is on the increase [2]. Consequently, purposeful planning and demand oriented scheduling of patient appointment in the outpatients' departments and specialty clinics gain more importance [3]. Therefore, to keep treatment efficiency and quality warranted [3 – 5], highly specialized treatments as well as those for very rare illness and diseases with complicated healing process, has to be integrated into the overall plan, resulting in increased demand and pressure on the healthcare industry [2]. The overall effect however, is long waiting time; delays and queues of patients. Patient waiting time has been defined as the length of time from when the patient entered the outpatient clinic to the time the patient actually leaves the Out-Patient Department (OPD) [6]. Waiting time can be time used for registration of patient, routine doctor's appointment, emergency room treatment, laboratory diagnostic test, receiving the results of various tests. Waiting time for elective care (procedures/treatment) has been considered a serious problem in many health care systems since it acts as a barrier to efficient patient flow [6] and has been documented as an important determinant of utilization of healthcare facility [7]. Reduced patient waiting time may lead to increased patient satisfaction and greater willingness of patients to return in primary and specialty care setting [8]. Moreover, the level of patients' satisfaction has been used in assessing the quality of health care services [9], as patients was highly satisfied with quality of care, had better health outcomes [10]. Waiting experiences and degree of satisfaction at each stage of waiting to be seen by the dentists are apparent factors that should be investigated in this environment where utilization of dental services is problem driven coupled with delayed presentation, when their condition is advanced with complications [11]. The deficiencies in the process of health care delivery and causes of dissatisfaction by patients noted from this study will be utilized to enhance favorable preventive health seeking behaviour and early dental presentation among the populace. This study therefore assessed patients' waiting

experiences at a primary and tertiary oral healthcare centres and how satisfied patients were with services provided.

Methodology

This cross sectional descriptive study was carried out at the Primary Oral Health Care Center, Idikan and the Dental Centre University College Hospital both within Ibadan. The Primary Oral Health Care Center (POHCC) is located at Idikan, a peri-urban community in Ibadan South West Local Government Area of Ibadan, the capital of Oyo State in South-Western Nigeria. This POHCC provides oral primary health care to the population within this area characterized by low social class [12]. The University College Hospital (UCH), Ibadan is a teaching hospital located within the Ibadan metropolis. The tertiary hospital serves as a referral centre for other oral health care centres within the town, state and the country.

All consenting patients presenting for the first time at the two dental centers, from September 2014 to August 2015 were recruited for this study. Patients were duly informed about the study and a written consent was obtained from the study participants before commencement of the study. Parents of patients aged ≤ 14 years filled the questionnaires as they were considered minor. However, the age of these patients were recorded for analysis in this study.

Data were collected from the study participants using a 29 item questionnaire which was pretested among 25 patients not involved in the main study. The questionnaire was divided into sections. Section A sought information on sociodemographic characteristics such as age, sex, patient's and parent /guardian (in case of children) educational level, and patients' occupation which was regrouped as skilled, unskilled and dependants using a modification of Office of Population Census and Surveys OPCS modified for this environment by Esan *et al* [13]. Section B sought information on duration of waiting time from the time patient entered into the dental center till the patient was attended to by the dentist [6]. This was assessed by the trained research assistants at the two dental centres. On patient's arrival, the purpose of the study was explained to each patient by the research assistant who subsequently noted the time on the questionnaire after the patient had consented. The time at which the documentation was completed by the health information /medical records unit for first timers or time at which old patients drop his/her card was noted, and the time when patient was called in to

see the doctor/dentist as well as time spent with the dentist were also recorded.

Questions were also asked on patients' level of satisfaction or dissatisfaction with services rendered. Satisfaction was assessed on a Likert's five rating scale (1= very dissatisfied, 2=dissatisfied, 3=neutral, 4= satisfied, 5= very satisfied). Patient satisfaction was determined by asking questions about comfort in the waiting room, physical environment, patient- doctor interaction, conduct of other health care providers, availability of medical resources and quality of health care. The participants were further required to suggest possible causes of prolonged waiting time as well as to proffer solutions to reduce the waiting time were. The face validity of the questionnaire was done by a team of experienced dentists who confirmed that the questions assessed the stated objectives.

Data analysis was carried out with SPSS version 22.0 using descriptive statistics. Satisfaction ratings with services provided was collapsed as dissatisfied (comprised of "very dissatisfied and dissatisfied"), and satisfied (comprised of "very satisfied and satisfied"). Chi square statistics was used to analyze categorical data and the level of significance was set at $p < 0.05$.

Results

A total of 266 respondents participated in the study. The participants' age ranged from 3 to 85 years with a mean of 36.3 ± 17 years. More than half (57.9%) of the respondents were female and male to female ratio was 1:1.4. 57.5% of participants were married while 36.8% respondents had University education or its equivalent (Table 1). Thirty seven percent of respondents were dependants i.e. they were either students, unemployed, retired or housewife and 53% have had no previous consultation and were consulting with the dentist for the first time (Table 1). Half of the respondents were presenting at the dental centres because of pain, and other reasons which varied from routine check-up to tooth fracture, ulcerations or combination of these reasons (Fig 1).

The waiting time of respondents ranged from 2 to 245 minutes with a mean of $55.8 (\pm 57.5)$ minutes, a median waiting time of 40 minutes and modal waiting time of 2 minute. The mean waiting time 11.5 ± 17.0 minutes for Idikan POHCC was significantly lower than that of UCH 102.3 ± 47.3 minutes ($t = 20.2, p < 0.001$). The majority of patients (92.0%) attending the POHCC experienced shorter waiting time 0- 30 minutes compared to those (4.2%) attending UCH ($p < 0.001$). More than half (62.3%) of the respondents consulted with the doctor within

the first hour of their arrival at the dental centres (Table 2).

Table 1: Sociodemographic characteristics of Participants

Variables	n	(%)
<i>Sex</i>		
Male	112	42.1
Female	154	57.9
<i>Age Group (years)</i>		
≤ 20	46	17.8
21-40	123	47.5
41-60	66	25.5
> 60	24	9.2
<i>Marital status</i>		
Single	100	37.6
Married	153	57.5
Divorced	2	0.8
Widowed	7	2.6
No response	4	1.5
<i>Educational level</i>		
Tertiary or its equivalent	98	36.8
Post-secondary	25	9.4
Secondary	82	30.8
Primary	29	10.9
None	19	7.1
<i>Occupational class</i>		
Skilled	47	17.7
Unskilled	116	43.6
Dependants	103	38.7
<i>Religion</i>		
Christianity	150	56.4
Islam	111	41.8
No response	5	1.9
<i>Previous consultation</i>		
Yes	117	44.0
No	41	53.0
No response	8	3.0

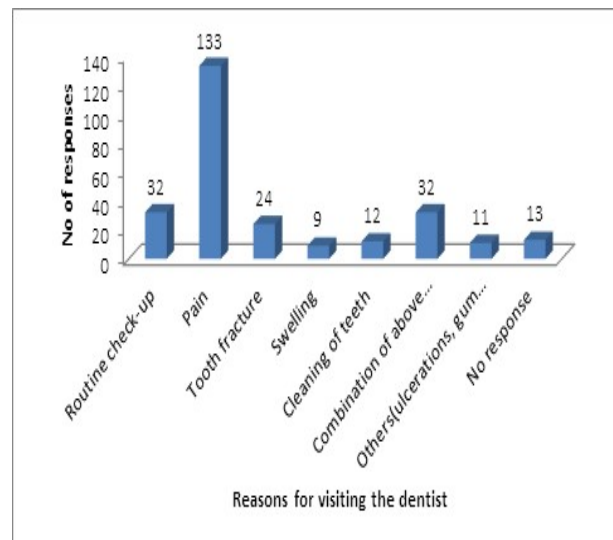


Fig 1: Respondents reasons for visiting the dentist

Table 2: Waiting time at the different Dental Clinics

Waiting time (minutes)	UCH N (%)	POHCC N (%)	Total N (%)	X ²	P -value
≤ 30	5 (4.2)	115 (92.4)	120 (49.2)	190.68	0.000*
31-60	26 (21.8)	6 (4.8)	32 (13.1)		
61-90	26 (21.8)	3 (2.4)	29 (11.9)		
91-120	28 (23.5)	1 (0.8)	29 (11.9)		
>120	34 (28.6)	0 (0)	34 (13.9)		
Total	119 (100.0)	125 (100.0)	244 (100.0)		

*Statistical significant

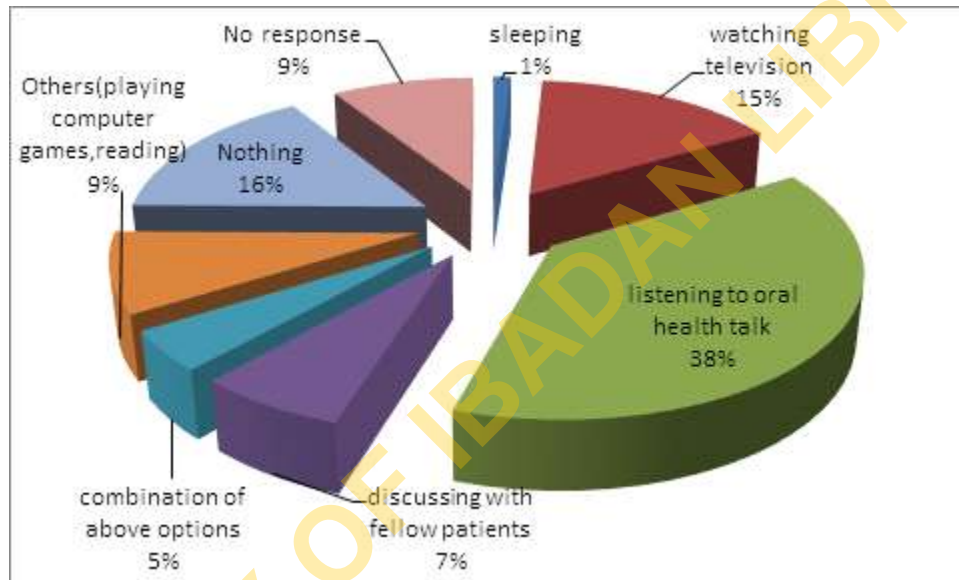


Fig.2: Activities engaged in by respondents while waiting at the reception

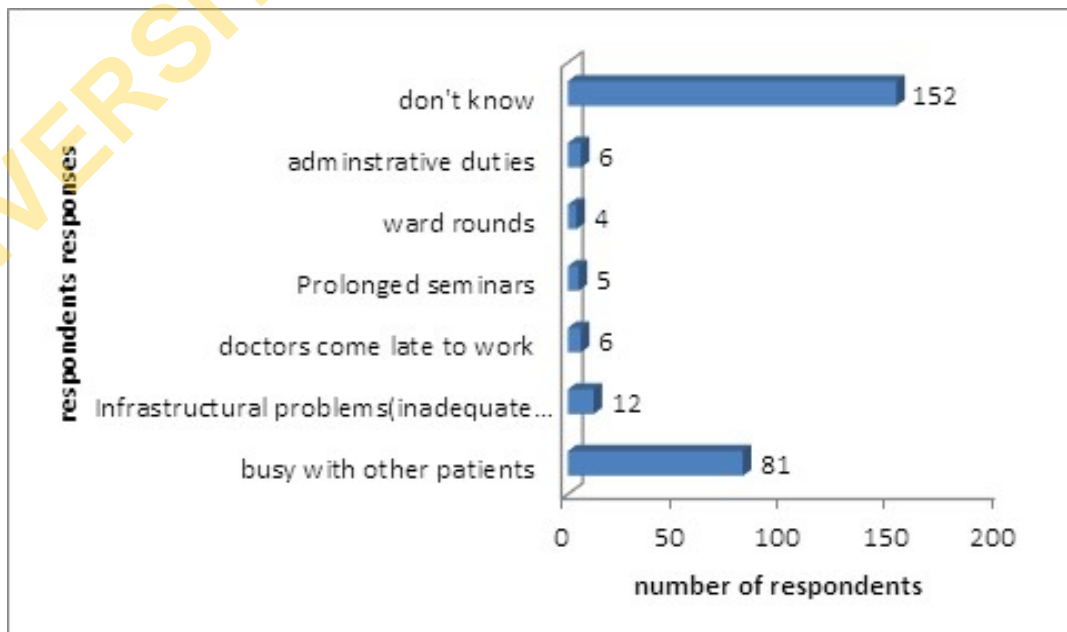


Fig. 3: Possible causes of delay in consulting the dentist by respondents

Table 3: Satisfaction with the various stages at the Out-Patient Department (OPD) and dental centre type

Variable	UCH N (%)	POHCC N (%)	X ²	p-value
<i>On entering the dental centre</i>				
Satisfied	115 (85.2)	112 (85.5)	0.005	0.943
Dissatisfied	20 (14.8)	19 (14.5)		
<i>At the point of dropping appointment card at the records unit</i>				
Satisfied	117 (86.7)	124 (94.7)	4.984	0.026*
Dissatisfied	18 (13.3)	7 (5.3)		
<i>While waiting to consult with the doctor</i>				
Satisfied	99 (73.3)	102 (77.9)	0.739	0.390
Dissatisfied	36 (26.7)	29 (22.1)		
<i>When called in to see the doctor</i>				
Satisfied	117 (86.7)	101 (77.1)	4.115	0.043*
Dissatisfied	18 (13.3)	30 (22.9)		
<i>While with the doctor</i>				
Satisfied	121 (89.6)	104 (79.4)	5.347	0.021*
Dissatisfied	14 (10.4)	27 (20.6)		
<i>After consulting with the doctor to nurses station for next appointment</i>				
Satisfied	120 (88.9)	126 (96.2)	5.087	0.024*
Dissatisfied	15 (11.1)	5 (3.8)		

*statistical significant

Table 4: Sociodemographic characteristics and satisfaction with service delivery at various stages in OPD

Variable	Satisfaction /dissatisfaction with the stage of dropping card at OPD		X ²	P- value
Age group (years)	Disatisfied	satisfied		
≤20	8 (17.4)	38 (82.6)	8.119	0.044*
21-40	14 (11.4)	109 (88.6)		
41-60	3 (4.5)	63 (95.5)		
61-80	0 (0.0)	24 (100.0)		
Total	25 (9.7)	234 (90.3)		
Marital status	<i>Satisfaction with services delivered after consulting with the dentist at OPD</i>			
	<i>Disatisfied</i>	<i>Satisfied</i>		
Single	12 (12.0)	88 (88.0)	10.212	0.017*
Married	6 (3.9)	147 (96.1)		
Divorced	0 (0.0)	2 (100.0)		
Widowed	2 (28.6)	5 (71.4)		
Total	20 (7.6)	242 (92.4)		
Occupational class	<i>Satisfaction with services at the stage of being called in to consult with the dentist at OPD</i>			
	<i>Disatisfied</i>	<i>Satisfied</i>	7.672	0.022*
Skilled	2 (4.3)	45 (95.7)		
Unskilled	26 (22.4)	90 (77.6)		
Dependents	20 (19.4)	83 (80.6)		
Total	48 (18.0)	218 (82.0)		

*Statistical significant

The ideal time to wait before being attended to by the dentists as perceived by respondents was 30 minutes or less in 44.7%, more than 30 minutes by 7.5% while 47.8% had no idea of the ideal waiting time.

Quite a number (38.3%) of respondents listened to oral health talk given by public health nurses while waiting, 15.4% watched television and others engaged themselves in other activities (Fig.2). When asked about possible causes of delay in being attended to by the dentists, responses varied from "I don't know" in 57.1%, "Busy with other patients" in 30.5% to "ward round" in 1.5%. (Fig.3).

The majority 227 (85.3%) believed that the doctors who attended to them performed according to their expectations and 209 (78.6%) mentioned that they were comfortable while waiting to be seen by the doctor.

The satisfaction ratings of respondents with their experiences at the various stages at the out-patient department was such that the majority (85.3%) were satisfied with the conduciveness of the environment and attitude of the attending staff as they entered into the dental center, 90.6% as they dropped their card, 75.6% while waiting to be called in to see the dentist, 82.0% and 84.6% while being called in to consult with the dentists and when they were actually with the dentists respectively (Table 3).

Patients attending the POHCC showed dissatisfaction with the stages of being called in to see the doctor (22.9%) and while with the doctor (20.6%) which is statistically significant compared with their counterpart attending the tertiary dental centre. ($p = 0.021$ and $p = 0.043$ respectively) (Table 3). A higher proportion (13.3%) of patients attending UCH showed greater dissatisfaction at the stage of dropping their appointment card for retrieval of their case notes and while fixing appointment for next visit (11.1%) compared to patients attending the POHC, (5.3% & 3.3%) which was also statistically significant ($p = 0.026$ & 0.024 respectively) (Table 3).

All the respondents in age group 61-80 years were satisfied with the stage of dropping their appointment cards when compared with other age groups (Table 4). The widowed 28.6% were most dissatisfied with services delivered after consulting with the dentist compared to others (Table 4). Skilled workers (4.3%) were the least dissatisfied with the stage of being called in to see the doctor (Table 4). No significant associations were found with other sociodemographic variables and being satisfied or dissatisfied with the various stages at the OPD ($p > 0.05$).

Suggested ways of improving waiting time and satisfaction with dental services as mentioned

by respondents include; employing more doctors 19 (7.1%), clinic expansion and improved facilities 15 (5.6%), reduced protocol to cut time spent in waiting 8 (3.0%), steady power supply 5 (1.9%), availability of audiovisuals for educators and audible television set 4 (1.5%), more workers 4 (1.5%), friendliness 3 (1.1%), and 208 (78.3%) were completely satisfied.

Discussion

This study assessed the waiting time experiences of patients attending a POHCC and Tertiary Health institution and their satisfaction with service delivery at these centres. Analysis of our results showed that many of the patients were consulting the dentist because of pain, which is in accordance with previous findings by Lawal *et al* [11], confirming the fact that consultation with the dentist in our environment is problem driven.

The waiting time of the respondents ranged from 2 to 245 minutes, higher reported from the Medical Outpatients in the Northern part of Nigeria [14]. However, of note is the mean waiting time that was higher in that study than what was observed at the POHCC but lower than the mean waiting time of 102 minutes at UCH, a similar tertiary health institution. Other studies (15,16,17) have reported lower waiting time than that observed at UCH (present study) while higher mean waiting time values was reported by Ajayi at the general out-patient department at UCH [18]. The differences may be attributed to the variations in the doctor-patient ratio and patient load experienced in the different regions studied. In addition to the reduced waiting time of patients attending the POHC compared to UCH, the majority of patients seen at the POHC were seen within 30 minutes of their arrival at the dental center, which is not unusual due to the complex organizational structure of tertiary health institutions and the several protocols involved before patients are seen, as well as the teaching of both medical and residents doctors in such institutions. However, a higher mean waiting time than that recorded at the POHC has been documented at Primary Health Care Centres [19]. This may also be explained by the higher patient load in such centres.

Many of the respondents perceived the causes of long waiting time to be related to doctor being busy with other patients [16], as similarly reported by Umar [14], supporting the high patient to doctor ratio experienced in many developing countries like Nigeria. The ideal time to wait before being seen by the doctor from the respondents' point of view was 30 minutes or less, which is in accordance with reports by other authors [14]. The major activity engaged in by the respondents while waiting to consult with the dentist was oral health talk which is

different from what was reported at the General Out-Patient department (GOPD) of UCH where many of the studied outpatients engaged in observing what was happening around the clinic area [18]. Health talk is an educative session aimed at informing and motivating patients about their oral health and oral health care, this has been ongoing for years in both the POHCC and dental centre, UCH. Health education sessions organized for outpatients have been found beneficial [20].

Watching television was another means of engaging the respondents as reported by respondents in UCH. Though this was missing at the POHCC, it is a form of entertainment appreciated by many individuals in this environment, which may all have contributed to the comfort experienced by many of the respondents while waiting to be seen by the dentist. The majority of the respondents believed the doctors performed to their expectations in accordance with the fact that doctors are known to have good attitude towards their patients [21]. The fact that quite a few mentioned that doctors did not perform to expectations is an issue to address as such respondents probably may not consult with the dentist unless when in dire need for treatment, likewise, they may also not recommend such facilities to others, which may result to generalizing their experiences at the dental center..

The majority of the patients were satisfied with the different stages at the dental outpatients a finding similar to what was reported by Umar [14], but contrary to findings in India where many of the respondents were dissatisfied with the services rendered at the OPD [22]. Present study showed that respondents were dissatisfied most with the stage of waiting to be called in to consult with the dentist which is similar to what has been has similarly been documented [23]. This is not surprising as many patients' minds are preoccupied with their conditions [18].

Dropping cards to retrieve casefiles was the stage least satisfied with by respondents, with the older age groups least dissatisfied with this stage compared to younger age groups. Increasing age has been associated with increased satisfaction with healthcare facilities [24]. The widowed followed by the singles were the most dissatisfied with services delivered after consulting with the dentist compared to others. This finding is similar to a previous study where singles were least satisfied of healthcare facilities when compared to others [24]. Skilled workers were the least dissatisfied with the stage of being called in to see the doctor contrary to findings by Afzal [24] where occupational class had no significant association with satisfaction with health care services delivery. The differences in the various

studies may be attributed to variations in perceptions of individuals.

Respondents attending the POHCC showed more dissatisfaction with the stage of being called in to see the dentists and when they were consulting with the dentists compared with respondents attending the teaching hospital UCH. This may be attributed to the architectural design of POHCC which is based on the principles of primary healthcare. The clinic is designed with appropriate technology and not necessary the most sophisticated ones compared with teaching hospitals, however, patients attending teaching hospitals were more dissatisfied with the stages of dropping their appointment cards to retrieve their casefiles and after consulting with the dentist in an effort to secure an appointment for the next visit. These stages are associated with confirming appointment time which may be cumbersome in some cases due to the patient load and the few staff available to perform such tasks. Suggested ways to improve service delivery by respondents ranged from employing more doctors in order to improve the doctor to patient ratio thus reducing waiting time, clinic expansion and improved facilities to accommodate and make waiting to consult the dentist more comfortable and the environment more conducive, reducing protocols except for the necessary ones. All the suggested ways will need to be considered in order to make the satisfaction rating of service delivery at dental centres 100% or almost. This is the need to improve early presentation for dental ailment, improve the quality of services given by professionals at the various health centers as well as overall reduction in complications from preventable dental ailments in the populace.

In conclusion, many patients were comfortable while waiting to consult with the dentist and the majority were satisfied with the stages of service delivery. However, causes of dissatisfaction and discomforts experienced by some of the patients will have to be addressed in order to make dental care experiences fully commendable.

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