Perception of Delivery of Dental Services Among Public and Private Dental Clinics Attendees in Benin City, Nigeria

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Abstract. The continuous utilization of oral health facilities in both public and private dental clinics is influenced by perception of oral health care providers' attitude and conduct among the different strata of persons living in Benin City and its environs. The purpose of this research was to assess how patients' opinion of the conduct and disposition of oral care providers affect their continuous utilization of oral health facilities in both public and private dental clinics in Benin City and its environs. This cross-sectional study was carried out among patients attending public and private dental clinics in Benin City. Pre-tested questionnaire which elicited information on demographic characteristics, oral health awareness, pattern of dental attendance, treatment pattern, duration of dental problem and reason for delayed presentation. Data collected were analyzed using IBM SPSS version 20 and test for significance was done using chi-square statistics or Fisher's exact test. 94/116 (81.03%) in public and 68/80 (85.00%) in private stated that care providers conduct was pleasant while 14/116 (12.07%) of respondents in public sector and 6/80 (7.50%) in private sector claimed that care providers conduct was rude. Most of the respondents: 95/113 (84.07%) in public and 64/77 (83.12%) in the private sector claimed that the conduct of care providers will not hinder them from continuous usage of the health facilities. 68/113 (60.18%) of respondents in public and 44/79 (55.70%) in private sector stated that the cost of treatment was expensive. Majority of clinical attendees: 71/115 (61.74%) in public and 54/79 (68.35%) in private sectors believe that the cost will not hinder their continuous utilization of the facilities. Majority of respondents: 60/112 (53.57%) in public and 53/80 (66.25%) in private sector stated that care providers explained the cause(s) of tooth problems. There was significant differences ($p<0.05$) between public and private respondents assessment of care provider's explanation on the cause(s) of tooth problems. Continuous utilization of oral health facilities in both public and private dental clinics is higher with people with more perception of the high quality of care given by oral care givers in Benin City, Nigeria. Quality time spent on explaining the cause, effect and preventive measures of dental diseases and Attractive disposition of oral care providers are the keys to the continuous usage of oral health facilities in the studied area.

Key words: perception, oral care, oral health facilities, dental clinics.

Introduction

Oral diseases are a leading cause of tooth loss in Nigeria (Aderinokun, 1997: 6-8; Danielson et al., 2011: 5-10). All age groups and social strata are affected (Danielson et al., 2011: 5-10; Chukwumah et al., 2014: 345-349). In Benin City, the prevalence of oral diseases is variable, depending on the type of oral condition and the study group (Braimoh et al., 2011: 137-145; Okeigbeimen, 2003: 27-31; Umoh and Azodo, 2012: 65-69). Underestimation of importance of oral diseases and care has been proposed as cause of the high rate of prevalence of oral disease (Centres for Disease Control and Prevention, 2011). Various factors have been identified for the underestimation of the importance of dental services such as access to oral health facilities, cultural practices,

low socioeconomic status (educational and income level) and low level of oral health awareness (Okunseri, 2005: 7; Wang et al., 2001: 388-390; Lindelow, 2004). Low level of oral health awareness, in particular lack of knowledge of preventive and maintenance measures of oral diseases and care bears a significant relationship to utilization of oral health services (Wang et al., 2003: 147-150; Akinyamoju et al., 2018: 150-156).

Many reasons have been attributed for the low level of dental awareness. Studies have opined that lack of enlightenment campaigns in both print and electronic media has resulted to poor oral health awareness (Martensson et al., 2004: 165-171; Saito and Kawaguchi, 2002: 197-200). Another study stated that low dental awareness may be the result of the few available oral health facilities, both public and private dental clinics, that are more often located in cities, leaving the rural and suburban areas unattended (Okeigbemen and Nnawuihe, 2015: 118-122). Despite the fact that dental care is presently a component of primary health care, the first level of contact of the individual, family and communities in terms of oral health in the national health systems in Nigeria is the secondary health care centers, as no local government health center in Nigeria has a dental unit or dental personnel. These secondary health care centers are mostly sited in state capitals and some cities in the country. Thus the study was based on secondary level of health care

The design of the dental clinic has also been identified as a factor that determines the continuous utilization of dental care services. Patients get psychologically affected by the dental room environment and may never want to visit the dentist again. An innovative healthcare interior design transforms the dental clinic to a cleaner, cheerful environment that complements patient's speedy recovery process and enhances their clinical experience and treatment outcome (Pakdaman, 2020).

Many patients, during visit to their oral health facilities, expect their dentists to be friendly, empathetic and patient, taking time to explain treatment options to them (Newsome and Wright, 1999: 166-170; Fox, 2010: 225-231). The importance of a good doctor-patient relationship in the utilization of healthcare services has been highlighted (Crow, 2003: 10-19). It has been reported that ethical conduct by health workers at all levels of health care will enable patients to freely and continuously utilize oral healthcare services to optimize their dental health without any encumbrance (Sbaraini et al., 2012: 177).

It has been also reported that carefully providing a patient with the necessary information in simple language that the patient can understand, by oral health care providers greatly enhance the continuous usage of oral health facilities by patients to optimize their dental health (Elley et al., 2010: 127-130).

Literature review did not reveal any report on the perception of care among patients attending public and private dental clinics in Benin City. This study hereby reports on perception of care among patients utilizing oral health facilities in both public and private dental clinics in Benin City.

Material and Methods

This cross-sectional study was carried out on selected public and private dental clinics attendees of all age groups in Benin City, Nigeria over a three-month period. The public dental clinic was Central Hospital Benin City, a government owned secondary health facility. Faith Mediplex which is a missionary hospital and three registered private dental clinics constituted the private dental clinics. Tool of data collection was a pre-tested questionnaire. The questionnaire elicited information on demographic characteristics, oral health awareness , pattern of dental attendance, treatment pattern, duration of dental

problem and reason for delayed presentation. The questionnaires were hand delivered and completed questionnaire were returned to the researcher. Informed consent forms were duly completed and signed by willing participants. Data was analyzed using IBM version 21.0 for frequency distribution and cross tabulation. Test for statistical significance was done using chi-square statistics or Fisher's exact test.

Results

A total of 200 subjects were recruited for the study. They were divided into two groups: subjects from public 60% (120/200) and private 40% (80/200). The age range of subjects was 5-65 years. The mean age and standard deviation for public respondents were 30.06 and 3.89 respectively, while the mean age and standard deviation for private respondents were 30.38 and 4.91. Majority of the respondents 38.3% (46/120) were between the age bracket of 21-30years in public oral health facilities and 32.5% (26/80) in private oral health facilities. Respondents were more of females 53% (106/200) than males 47% (94/200). Of the females sampled, 52.5% (63/120) utilized public oral health facilities, while 53.7% (43/80) of the sampled population utilized private oral health facilities, 47.5% (57/120) of the males sampled utilized public oral health facilities while 46.3% (37/80) of males utilized private oral health facilities (Table 1).

Table 1. Relationship between respondents' demographic characteristics and their attendance of public and private oral health facilities

	PUBLIC		PRIVATE		TOTAL	X^2	P
	No.	%	No	%			
SEX							
Female	63	52.5	43	53.7	94	0.03	>0.05
Male	57	47.5	37	46.3			
AGE							
≤ 10years	4	3.3	3	3.8	7	t-value =- 0.389	>0.05
11-20years	23	19.2	14	17.5	37		
21-30years	46	38.3	26	32.5	72		
31-40years	18	15.0	18	22.5	36		
41-50years	7	5.8	12	15.0	19		
Above 50 years	22	18.4	7	8.7	29		
RELIGION							
Christian	111	92.5	73	91.3	184	1.552	>0.05
Muslim	3	2.5	4	5.0	7		
Traditional Religion	5	4.2	3	3.7	8		
Others	1	0.8	0	0	1		
TOTAL	120	100	80	100	200		

94/116 (81.03%) in public and 68/80 (85.00%) in private stated that care providers conduct was pleasant. 14/116 (12.07%) of respondents in public sector and 6/80 (7.50%) in private sector claimed that care providers conduct was rude. Only about 8/116 (6.90%) of respondents in public and 6/80 (7.50%) in private sector claimed not be sure of the conduct of the care providers. There was no significant difference ($p>0.05$) between public and private respondents assessment of the conduct of care providers (Table2). This could be due to the fact that doctors, by training, are empathetic to their patients.

Table 2. Respondents' assessment of oral care providers' conduct

Oral care providers' conduct	Public		Private		X^2	P
	No.	%	No.	%		
Pleasant	94	81.03	68	85.00	1.083	>0.05
Rude	14	12.07	6	7.50		
Not sure	8	6.90	6	7.50		
Total	116	100	80	100		
Non respondents : 4 in public dental clinics						

95/113 (84.07%) of respondents in public and 64/77 (83.12%) in the private sector claimed that the conduct of care providers will not hinder them from continuous usage of the health facilities. 11/113 (9.75%) of the respondents in public and 7/77 (9.09%) in private sector stated that the conduct of care providers will hinder their continuous usage of the health facilities while 7/113 (6.20%) of the respondents in public sector and 6/77 (7.79%) in private sector claimed not be sure if their conduct will hinder their continuous usage of the health facilities. The observed difference (P>0.05) in the relationship between oral care providers' conduct and respondents continuous use of oral health facilities, in public and private health facilities was statistically not significant (Table 3).

Table 3. Relationship between oral care providers attitude and respondents continuous use of oral health facility

Influence of oral care providers' conduct on usage of health care facility	Public		Private		X^2	P
	No.	%	No.	%		
Will not hinder	95	84.07	64	83.12	0.196	>0.05
Will hinder	11	9.73	7	9.09		
Not sure	7	6.20	6	7.79		
Total	113	100	77	100		
Non respondents: 7 in public dental clinics; 3 in private dental clinics						

68/113 (60.18%) of respondents in public and 44/79 (55.70%) in private sector stated that the cost of treatment was expensive. 20/113 (17.70%) in public and 26/79 (32.91%) in private sector stated that the cost was not expensive, while 25/113 (22.12%) in public and 9/79 (11.39%) in private were not sure if the cost was high or not. There was no significant statistical difference (p>0.05) between public and private respondents thought on cost of treatment (Table 4). More respondents in both public and private dental clinics reported that cost of treatment was expensive.

Table 4. Respondents' thought on cost of treatment

Cost of treatment	Public		Private		X^2	P
	No.	%	No.	%		
Expensive	68	60.18	44	55.70	6.88	>0.05
Not expensive	20	17.70	26	32.91		
Not sure	25	22.12	9	11.39		
Total	113	100	79	100		
Non respondents: 7 in public dental clinic; 1 in private dental clinic						

71/115 (61.74%) in public and 54/79 (68.35%) in private sectors believe that the cost will not hinder their continuous utilization of the facilities. 31/ 115 (26.96%) of the respondents in public and 18/79 (22.79%) in private sector believe that the cost of therapy will prevent their further utilization of the service while 13/115 (11.30%) in public and 7/79 (8.86%) in private were not sure if the cost will affect their further utilization. There was no significant statistical difference ($p>0.05$) in the relationship between public and private respondents opinion on continuous usage of health facilities (Table 5).

Table 5. Relationship between cost and continuous usage of oral health facility

Continuous usage of oral health facility	Public		Private		X^2	P
	No.	%	No.	%		
Yes	31	26.96	18	22.78	0.912	>0.05
No	71	61.74	54	68.35		
Not sure	13	11.30	7	8.87		
Total	115	100	79	100		
Non respondents: 5 in public dental clinic; 1 in private dental clinic						

60/112 (53.57%) of the respondents in public and 53/80 (66.25%) in private sector stated that care providers explained the cause(s) of tooth problems. 46/112 (41.07%) in the public and 19/80 (23.75%) in private sector stated that they were not told the cause(s) of tooth problems while 6/112 (5.36%) in public and 8(10.00%) in the private sector were not sure if care providers told them the cause(s) of tooth problems. There was significant differences ($p<0.05$) between public and private respondents assessment of care provider's explanation on the cause(s) of tooth problems (Table 6). More of the respondents 53/80 (66.25%) in the private sector claimed that that care providers explained to them the causes of tooth problem than public 60/112 (53.57%). This may be due to the fact that the private oral care providers has more time to spend with a patient than the public oral care provider

Table 6. Respondents' assessment of oral care providers' explanation on the cause(s) of tooth problem

Responses	Public		Private		X^2	P
	No.	%	No.	%		
Explained	60	53.57	53	66.25	7.690	<0.05
Did not explain	46	41.07	19	23.75		
Not sure	6	5.36	8	10.00		
Total	112	100	80	100		
Non respondents: 8 in public dental clinic.						

58/169 (34.31%) of the respondents had visited the dentist within the last 12 months, 30/102 (29.41%) were in the public and 28/67 (41.79%) in the private health facilities. 8/102 (7.84%) in the public and 12/67 (17.91%) in the private had made a visit within 12-36 months ago, while 16/102 (15.69%) in the public sector and 8/67 (11.94%) in the private visited within 36-60 months ago. Only about 67/169 (39.64%) had never been to the dentist, 48/102 (47.06%) were in the public and 19/67 (28.36%) in the private oral health facilities. There was significant statistical difference ($p<0.05$) between public and private respondents last visit to the dentist (Table 7). Respondents with frequent visits to the dentist were more in private than public dental clinics More of the respondents in the

private health facilities 40/67 (59.70%) visited between the last 36 months or less when compared to the public dental clinic 38/102 (37.25%).

Table 7. Respondents' last visit to the dentist

Responses	Public		Private		X^2	P
	No.	%	No.	%		
Within the last 12 months	30	29.41	28	41.79	9.235	<0.05
12-36 months	8	7.84	12	17.91		
36-60 months	16	15.69	8	11.94		
Never been to a dentist	48	47.06	19	28.36		
Total	102	100	67	100		
Non respondents: 18 in public dental clinic; 13 in private dental clinic						

Discussion

Most of the respondents were females. This can be attributed to the fact that females are more conscious of their appearance than males. This was similar to findings reported in previous studies on utilization of dental services carried out in Benin City (Okunseri et al., 2004: 127-130), Ibadan (Taiwo and Moronike, 2006: 36-43) and Kuwait (Ansari and Honkala, 2007: 41-46).

Respondents within the age limit of 4-30years had the highest rate of utilization and it decreases as age increases. This may be due to the fact that as one grows older there are changes in the consumption pattern of an individual from sugary food substance to more fibrous food substances. This study finding is in agreement with an earlier study done in Ibadan, Nigeria (Olanrewaju et al., 2009: 16-20) and India (Nagarjuna et al., 2016: 451-455).

81.03% in public and 85.00% in private dental clinics stated that oral care providers' conduct was pleasant. The oral care provider, especially the dentist, has an undeniable responsibility to his patients to be civil, empathetic, and friendly and conduct him or herself in an ethical manner as stated in previous studies (Sbaraini et al., 2012: 177; Lahti et al., 1996: 240-244). A friendly disposition is an important feature of oral care providers in the areas of study, particularly because it helps in converting the respondents' psychology from a passive attitude in the face of a professional authority to one of active participation (Pälvärinne et al., 2019: 12; Dewanto et al., 2020: 138; Goyal et al., 2014: 42-48; Amuh et al., 2014: 307-310). This change of attitude by the respondents is vital to their continuing commitment to their oral health as well as continual usage of oral health facilities (Silva, 2015; Ehizele et al., 2011: 254-260; Nakre and Harikiran, 2013: 103-115). From the study, it can be seen that with more pleasant attitude from oral care provider, respondents expressed the intention to continuously use oral health facilities. This finding is in consonance with previous studies on the effect care providers' attitude on the utilization of health services (Luzzi and Spencer, 2008: 93; Ayer, 2013: 56-64; Harikiran and Nakre, 2013: 103-115). It was also observed, from the study, that despite the perceived opinion on the cost of dental care services, many respondents believed that the cost of treatment will not hinder their continuous usage of oral health facilities. This observation further strengthens the finding that a friendly conduct of oral care providers encourages continuous usage of oral health facilities.

Majority of the respondents in public (53.57%) and in private sectors (66.25%) stated that oral care providers explained the cause(s) of tooth problems. Providing a patient with the necessary information on the cause of dental diseases is an essential requirement for the prevention of the disease (Elley et al., 2010). Oral health education is

an important feature of the health care providers in the areas of study, particularly because it provides the needed encouragement for continuous utilization of oral health facilities by respondents, in an environment where dental awareness is very low. Providing information on causes of oral problems, preventive and maintenance measures of oral health takes time and requires some level of empathy of the patients' problem and insight into the limitations of the patients understanding of dental care (Elley et al., 2010).

From the study, it can be seen that as respondents' perception of healthcare providers' information increases, utilization of oral health service increases. This finding is in consonance with previous studies on the effect oral health education on the utilization of health services (Harikiran and Nakre, 2013: 103-115). It was also observed that as the respondents' perception of oral health information by care providers improves there was an increase in the utilization of oral health services in both public and private health facilities. More of the respondents (59.70%) in the private health facilities visited between the last 36 months or less when compared to the public dental clinic (37.25%). As stated, this can be attributed to the fact that private oral care providers take time to explain the causes of oral problems and the need to make routine visit to the facility unlike the public sector that is so busy that oral care providers may not have enough time to spend on an individual.

Conclusion

Continuous utilization of oral health facilities in both public and private dental clinics is higher with people with more perception of the high quality of care given by oral care givers in Benin City, Nigeria. Quality time spent on explaining the cause, effect and preventive measures of dental diseases and Attractive disposition of oral care providers are the keys to the continuous usage of oral health facilities in the studied area.

Limitation

The sample size was not determined in the study which made it not possible for adequate associations and correlations. Sample size calculation is recommended for correlations to be made. The subjects involved with this study were selected using convenience consecutive sampling method. This was a limitation as it made it difficult to have a good representation of the area of study.

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