Oral self-care practices and attendance pattern at a secondary care facility in Lagos State.

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Abstract

Introduction: Oral diseases such as dental caries, periodontitis, oropharyngeal cancers, and maxillofacial trauma are public health problems in both developed and developing countries. In spite of advances in dentistry over the last few decades, a large part of the population put off seeking dental care until they experience significant pain and discomfort. The aim of this study was to determine the self-care behaviours of patients before presenting in the dental clinic the pattern of dental care utilisation and its association with their socio-demographic characteristics.

Method: This cross-sectional study was conducted at the Ajeromi General Hospital, Lagos state, Nigeria. A total of 212 questionnaires was administered on respondents who met the set inclusion criteria. Information obtained included socio-demographic data, current oral health problems, oral self-care practices in the previous year and the reasons for avoidance of dental treatment.

Result: Most of the study participants (58.5%) had never visited the dentist before and the majority of them (72.2%) were involved in self-care practices. The major reasons given by the subjects for not attending dental clinics regularly were the fear of dentists or dental treatment (34.9%), high cost of treatment (34.9%), difficulty in accessing a dental clinic (17.0%) and tolerable pain (7.5%).

The age, marital status, educational level, alcohol intake and tobacco use were factors that were significantly associated with delayed visit to dentist in this study. Respondents that were <30 years old, single, with primary or secondary level education and those that smoke and consume alcohol were less likely to visit the dentist.

Conclusion: There is an urgent need to empower dental patients to overcome the barriers that are responsible for their avoidance of dental clinics and their recourse to self-care practices.

Key Words: Oral Self Care Practices; Attendance pattern; Self Medication.

Introduction

Oral diseases such as dental caries, periodontitis, oropharyngeal cancers, and maxillofacial trauma are public health problems in both developed and developing countries[1]. The World Oral Health report of 2003 states that oral diseases have a considerable impact on individuals and communities, as a result of the pain and suffering, impairment of function and reduced quality of life that they impose.[2] Most of these conditions can however be treated or ameliorated by dental health professionals who provide services at different levels of health care facilities. Prompt utilisation of dental services has been associated with improved health outcomes in the populace.[3]

However, in spite of advances in dentistry over the last few decades, a large part of the population put off seeking dental care until they experience significant pain and discomfort. [4] Studies from the African continent highlight poor utilization of dental care across urban and rural populations.[5-7] This could be due to economic difficulties, [3] poor perceived oral needs,[8] competing demands, misconceptions about oral health, inadequate facilities and shortage of dental workforce. Patients thus resort to many practices such as self-care through which they aim to alleviate their symptoms.

Self-care is one means by which patients actively engage in managing their oral health without access to professional care. It is the component of health self-management that includes behaviour undertaken to enhance health, prevent disease, limit illness, or restore health.[9, 10] It may also include informal support, formal services, and professional care. [11] Self-care behaviours may be individually initiated or carried out in collaboration with some health professionals. These activities derive from the individual's knowledge and skills. Self-care strategies may be in the form of non-prescription medication and home remedies but the dentist is eventually consulted for the ultimate relief of symptoms[10]

Toothache is the commonest dental complaint that patients have. The experience of toothache triggers different forms of health seeking behaviour depending on its severity. [9] Anxiety is due to a phobia for dentists and their practice. Lack of time or belief in natural remedies can also make patients resort to self-care. Patients experiencing dental pain avoid the dental clinic initially and resort to self-medication. This inappropriate use of drugs to treat self-diagnosed disorders or symptoms of the disease, may be in the form of intermittent or continuous use of medication for chronic or recurrent disease or symptoms.[12] Evidence from the existing literature suggests that most people involved in self-medication practices acquire the knowledge from medicine dealers, neighbours, relatives and media houses both print and electronic.[13]

Patients also use other substances to alleviate dental conditions. These include “over the counter” dental products and complementary therapies. Specific examples of such products are clove oil, "touch and go", peppermint, alcohol, engine oil, aspirin powder, baking soda, analgesics, salt and hydrogen peroxide. The aim of this study was to determine the self-care behaviours of patients before presenting in the dental clinic, the pattern of dental care utilisation and also to determine its association with their socio-demographic characteristics.

Materials and methods

This cross-sectional study was conducted at the Ajeromi General Hospital, Lagos, Nigeria. The sample size was calculated using a formula for cross sectional studies: $N = Z\,pq/\,d^2$. Using the prevalence for self-care from a similar study, [14] a sample size of 200 was determined. Two hundred and twelve participants were however recruited for the study. The subjects for the study were recruited from patients who presented at the Ajeromi General hospital for dental treatment. A simple random sampling technique was utilized to recruit the respondents. The sampling frame was the attendance register for each day and the balloting method was utilized in selecting the study subjects. A total of 212 questionnaires was administered during the study on subjects who met the inclusion criteria and gave their informed consent. The Ajeromi General Hospital is a Lagos State Government owned secondary care 82-bed facility that is situated at the Ajegunle / Olodi Apapa area of Lagos State. The Dental clinic of the Hospital attends to over 25 patients daily. Preventive, Restorative and Surgical services are provided at the dental clinic by six trained dental personnel. The protocol and procedures of the study were presented to the Health Research and Ethics Committee of the Ajeromi General Hospital and approval was obtained. First time clinic attendees, presenting with dental complaints who were18 years old and above were included in the study. Patients below 18years of age, those that had been previously treated at the clinic and had received oral health education and those that refused to give their informed consent were excluded from the study. A structured interviewer administered questionnaire was used for data collection. The first part of the questionnaire obtained information on socio-demographic items such as gender, age, and level of education, as well as the dental history of the respondents. The second part obtained data on the current oral health problems, self-care practices used in the past year and the dental attendance pattern of the respondents. Data was analysed using SPSS (Statistical Package for Social Sciences) for Windows (version 18, Chicago, IL) Statistical software package. Frequency distribution tables were generated for all variables and measures of central tendency and dispersion were computed for numerical variables. Since the data were normally distributed, descriptive statistics including means, standard deviations, and percentages were used to summarize the demographic variables and health-related behavior of the study sample. The Chi square test was used to determine the level of association between variables.

A 95% confidence interval and a 5% level of significance was adopted.

Results

Majority of the respondents were less than 30 years (53.8%) while the mean age of the respondents was 33.4 ± 14.1 years. The male: female ratio was 1:1.2. Most of the respondents were single and about 88% had at least a secondary school education. Majority of the respondents were also students. (Table 1).

Table 1: Socio demographic characteristics of respondents

Variable	Frequency (N = 212)	%
Age group (years)		
Less than 30	114	53.8
30 – 49	74	34.9
50 – 69	18	8.5
70 years and above	6	2.8
Mean ± SD	33.4 ± 14.1	
Gender		
Male	100	47.2
Female	112	52.8
Marital status		
Single	118	55.7
Married	86	40.6
Divorced	4	1.9
Widow	4	1.9
Religion		
Christianity	158	74.5
Islam	52	24.5
Traditionalist	2	0.9
Ethnic group		
Yoruba	94	44.3
Igbo	94	44.3
Hausa	4	1.9
Others	20	9.4
Educational status		
Primary	24	11.3
Secondary	96	45.3
Tertiary	92	43.4
Occupation		
Student	60	28.3
House wife	14	6.6
Trader	52	24.5
Unemployed	12	5.7
Business	22	10.4
Artisan	32	15.1
Professional	20	9.4

More than half of the study participants (58.5%) had never visited the dentist before and the majority of them (72.2%) were involved in self-care practices. Out of the respondents that had visited a dentist previously, 15.6% did so less than a year ago. Similarly, about 12%, 30%, 9% and 53% of respondents smoked, took alcohol, took tobacco and chewed sugar containing gum respectively. (Table 2).

Table 2: Oral care practices and habits of the respondents.

Have you ever visited a Dentist?		
Yes	88	41.5
No	124	58.5
When was your last dental visit?		
Not Applicable	124	58.5
< 1 year	33	15.6
1-5years	27	12.7
6-10 years	10	4.7
> 10 years	18	8.5
Do you indulge in Self-care practices?		
Yes	153	72.2
No	59	27.8
Do you Smoke?		
Yes	26	12.3
No	186	87.7
Do you consume alcohol?		
Yes	64	30.2
No	148	69.8

Do you use tobacco in other forms?		
Yes	18	8.5
No	194	91.5
Do you chew sugar containing gum?		
Yes	112	52.8
No	100	47.2

The major reasons given by the subjects for not visiting dental offices regularly were fear of dentists or dental treatment (34.9%), high cost of treatment (34.9%), difficulty in accessing a dental clinic(17.0%) and tolerable pain (7.5%). Salt in water (43.1%), analgesics (36.6%) and 'touch and go' (24.8%), were the most common substances used for self-care by the respondents. Majority of the respondents (82%) felt that the substances used had little or no effect on their pain experience. (Table 3).

Table 3: Dental History and Self-care practices of the respondents.

Variable	n	% Frequency
Reason for present dental visit		
Toothache	178	84.0
Dental caries	22	10.4
Oral Malodour	6	2.8
Failed Bridgework	2	0.9
Missing tooth	4	1.9
	212	100.0
Reason for delayed dental visit		
Fear of Dentists/Dental Treatment	74	34.9
High cost of treatment	74	34.9
Difficulty in accessing dental clinic	36	17.0
The pain is bearable	16	7.5
Too busy	12	5.7
Drug / Substance used for self-care (Multiple responses allowed)		
Salt in water	91	43.1
Analgesics	78	36.6
'Touch and go'	53	24.8
Native Medicine	42	19.6
Tobacco / Snuff	36	17.0
Alcohol	11	5.2
Salt	8	3.9
Injections	3	1.3
Petrol	3	1.3
Alum	3	1.3
Gin/ Alum	20	1.3
Perceived effect of the substance used		
Slight pain reduction	91	43.0
No reduction in pain	83	39.0
Great pain education	38	18.0
Those who recommended used substance		
Self	70	33.0
Parents	44	20.8
Friend	38	17.9
Neighbour	36	17.0
Colleague	20	9.4
Spouse	4	1.9

The age, marital status, educational level of the respondents as well as alcohol intake or tobacco use were factors that were significantly associated with visit to dentist in this study. Respondents that were <30 years old, single, with primary or secondary level education and those that smoke or consume alcohol were less likely to visit the dentist. (Table 4).

Table 4: Factors associated with utilization of dental services

Variables	Visit to dentist			
	Yes n = 88 (%)	No n = 124 (%)	χ^2	p
Age group				
Less than 30	36 (40.9)	78 (62.9)	10.38	0.006
30 – 49 years	38 (43.2)	36 (29.0)		
50 years and above	14 (15.9)	10 (8.1)		
Gender				
Male	46 (52.3)	54 (43.5)	1.572	0.210
Female	42 (47.7)	70 (56.5)		
Marital status				
Married	44 (50.0)	42 (33.9)	5.55	0.018
Not married#	44 (50.0)	82 (66.1)		
Ethnic group				
Yoruba	38 (43.2)	56 (45.2)	0.80	0.669
Igbo	38 (43.2)	56 (45.2)		
Others	12 (13.7)	12 (9.7)		
Educational level				
Primary	8 (9.1)	16 (12.9)	15.224	0.001
Secondary	28 (31.8)	68 (54.8)		
Tertiary	52 (59.1)	40 (32.3)		
Smoking				
Yes	16 (18.2)	10 (8.1)	4.896	0.027
No	72 (81.8)	114 (91.9)		
Alcohol				
Yes	38 (43.2)	26 (21.0)	12.052	0.001
No	50 (56.8)	98 (79.0)		
Tobacco use				
Yes	12 (13.6)	6 (4.8)	5.127	0.024
No	76 (86.4)	118 (95.2)		
Chew gum				
Yes	48 (54.5)	64 (51.6)	0.178	0.673
No	40 (45.5)	60 (48.4)		

"Not married" constitutes singles, widows and separated

The respondents suggested oral health education, dental health policy and drug policy control as measures that could encourage patients to visit the Dentist early. (Figure 1)

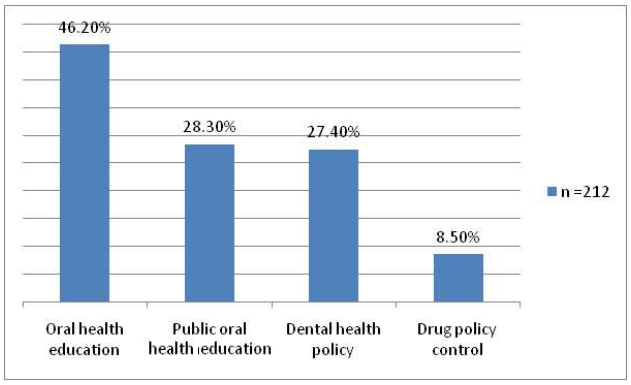

Figure 1:Ways suggested by patients to encourage early visit to the dentist.

Discussion

Females were noted to be predominant in the study population which is in agreement with the findings of previous researchers.[3,15] This may not be surprising since females have been observed to have a better health seeking behaviour than males. Most of the participants in this study had never been to the dental clinic possibly indicating that there is a tendency for patients to access curative/emergency services rather than preventive dental services. This result was in agreement with the findings of some other researchers in Jordan[16,17] who found that the overwhelming majority of patient, both adults and school children, visited dentists irregularly and for symptomatic reasons only, while only a small number attended regularly for dental check-ups or preventive reasons. It was however in contrast to a study in Australia which showed that almost two-thirds of dentate adults reported having visited the dentist in the last 12 months, while over 80% report having visited in the past two years[18]. These findings highlight the importance of preventive interventions and oral health promotion directed at the population in developing countries to reverse this trend.

Toothache (84%) was the major reason why the respondents visited the dentist. Ekanayake et al[19] had observed that dental pain is a significant predictor of the utilization of dental services. This was in agreement with the findings by Braimoh et al[8] who observed that patients had a poor attitude towards oral health and mainly seek dental services due to toothache. A study on oral health among dentate adults with teeth in the United Kingdom also indicated that pain was the most frequent problem over the preceding 12-month period (40%), thus interfering directly with these individuals' daily activities.[20] Regrettably, toothache, whether of periodontal or of carious origin is a symptom of advanced dental disease and is a pointer to poor access to dental care, either for preventive care or appropriate review.

The fear of the dentist and the cost of dental treatment were the most common reasons for late presentation at the clinic. Dental fear has been identified as a significant barrier towards the receipt of dental care, particularly as a result of avoidance behaviour.[21] Research has also consistently demonstrated that dental fear is not only related to poor oral health but also to reduced dental attendance.[22] Additional evidence that dental anxiety is detrimental to oral health comes from the 1988 United Kingdom Adult Dental Health Survey.[23] People who selected a fear-related statement as the most important barrier to dental care, had more missing teeth and fewer filled teeth than those who had no strong association with any of the potential barriers to dental attendance. Dental treatment in most cases is not enjoyable nor intrinsically motivated.[24] There is a need to encourage patients to attend the clinic routinely for check-up and to make patients first and subsequent dental visits as pleasant and atraumatic as possible.

The cost of dental treatment was also adduced to be a reason for avoidance of dental treatment by most of the respondents. This could be due to the fact that most of the expenses for dental treatment in Nigeria is out pocket and also due to poor coverage for Health insurance in Nigeria most especially for dental services. The avoidance of dental treatment was most obvious in respondents that were less than 30 years old, single, with primary or secondary level of education and those that smoke and consume alcohol. This was in agreement with Woolfolk et al found that high socioeconomic status (SES), having dental insurance and middle age were potential factors of more frequent dental check-up.[25] Locker et al[26] also reported that those of low income level and those without dental insurance were more likely to report financial barriers to dental care. Improved access to dental care through the provision of primary oral health care services and universal health insurance coverage for basic dental care could aid to remove this crucial barrier to dental services.

Salt in water was the most widely used home remedy by most of the respondents. This could be due to its regular recommendation by dental health care

professionals for a wide range of oral conditions both before and after therapy. The ease of access to obtain analgesics in Nigeria without prescriptions could also be responsible for its wide usage for self-care by the respondents. Analgesics present no danger for most people when taken at the recommended dosage. Analgesic use has however been associated with acute renal failure and chronic analgesic nephropathy when taken excessively for a long duration. This danger along with other side effects of chronic analgesic use such as gastric ulcer, prolonged bleeding, potentiation of asthmatic attacks and liver damage must be clearly explained to patients that abuse them.

'Touch and go', a potentially mutagenic product was also used by a quarter of the respondents to relieve dental pain. This indicates that unregulated products are still routinely marketed in Nigeria to the unsuspecting public. The use of this substance along with that of other substances such as tobacco/snuff, petrol, alum/gin and native concoction could result in the development of premalignant/ malignant lesions due to the denaturing effect of these substances on the oral mucosa with chronic use. It is noteworthy that majority of the respondents felt that the substances used had little or no effect on the oral conditions for which they practised self-care and that they had to present to the dental clinic as a last resort.

The respondents suggested oral health education, dental health policy and drug policy control as measures that could encourage patients to visit the dentist early. There is a need for aggressive health promotion activities to educate the public on the need to present early in the clinic and also to access preventive dental services. There is also a need to ensure universal coverage for health insurance so that the barrier of cost of treatment can be overcome. Regulatory authorities should ensure that medication purchase is restricted to those with prescriptions and that harmful products that are abused by patients for self-care are withdrawn from circulation. One weakness of our study is that these results are based on a cross-sectional survey design. Therefore, it is not possible to document causal relationships since the results are subject to the recall bias of the participants.

Conclusion

This research shows that most of the respondents engage in a variety of dental self-care behaviours, such as the use of salt in water, analgesics and other medication. Dental pain, which is the most significant predictor of the utilisation of dental services, was the major reason why the respondents visited the dentist. Most of the subjects had a dental clinic avoidance behaviour which was most evident among those that were less than 30 years old, single, with primary or secondary level of education and those that smoke and consume alcohol. The main reasons for this avoidance behaviour were dental fear and the cost of dental treatment. There is an urgent need to empower dental patients to overcome the barriers that are responsible for their avoidance of dental clinics and their recourse to self-care practices.

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