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Research Article

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Distribution of dental problems among patient. A case study of FMC Umuahia

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Abstract

The aim of this survey was to review the pattern of dental diseases among patient that attended Federal Medical Centre Umuahia (FMC) clinic at Dentistry Department during a period of three years. A retrospective study of patients with dental diseases was used at the Department of Dentistry, Federal Medical Center Umuahia between August 2007 to August 2010. A total of 460 patients were seen with various dental diseases during the period of review. Relevant information, which included age, sex, and ethnicity where recorded the presenting complaint were recorded. There are 221 (48.0%) male and 239 (51.9%) female, with age range of 1-61 years of age. Pain was the commonest cpmplaint 75.4%, pit and fissure caries' (83.8%), acute caries 6.47%, rampart caries 52.9% incisal caries 2.94% and root caries 1.47% were present. Dental caries is about 340 patients 73.9% chronic periodontitis were present at 7.60% juvenile periodontitis at 3.04%, Gingivitis at 65.2%, tooth sensitivity at 3.04% malocclusion at 3.26%.

Introduction

Oral and Dental diseases are common health problems in both developed and developing countries. The occurrence and the pattern of these dental diseases vary from developed to developing nations and at the same vain vary from community, this may depend largely on the relationship between the way the people live and the prevalence of dental diseases as have been reported by many authors (Murray, 1996; Loe, 2000). Other factors that may affect the prevalence of dental diseases include but not limited the level of dental health awareness, oral health care practice, attitude of the people in the community which involves the type of food they eat and the sources of their drinking water. With increase in dental awareness, education, modern dental materials oral health care has improved greatly in the past decades in developing country (Aderioku, 2000; Havey, 2008). Studies have shown that the most common, dental problem globally is periodontal diseases, dental caries and malocclusion. According to American dental Association 65% of persons above 60 years have no teeth in their mouth and this has greatly affected their nutritional status.

In Nigeria, malocclusion has been recorded in 80% teeth erupting among children. According to Hermiston (2000) Dental Caries is still a serious public health problem for us children and is one of the most common diseases of the children.

He further stated that more than 50% of age six to fifteen years (6-15yrs) are prone to dental caries because increase in the intake of refined sugar, sweets and fruit drink. In Nigeria and other developing countries there is no record on the prevalence of dental diseases. But experience has shown that dental caries is the most common among others, the reason for this may be attributed to poor patronage or utilization of dental clinics, ignorance, poverty, lack of dental experts etc.

Furthermore oral health is generally perceived to be less important more than other health problems. This may be a major factor for poor utilization of dental services across the country (Aderinoku,2000;Cawson and Odell,1980,1980).

Objectives of the study

The general objective of the study is to review the pattern of dental diseases among patient who attended the FMC Umuahia Dentistry Department from 2007 - 2010.

The specific objectives

To determine the common dental diseases among patients that attended the FMC Umuahia.
To determine the age group that is mostly affected.
To determine if sex influence the pattern of dental problem.

Research questions

1. What are the common dental problem seen at the FMC Umuahia for the period of 2007-2010.
2. What age group were mostly affected with dental problems.
3. Does sex influence the pattern of distribution of dental problems?

Materials and Methods

Research design

A Retrospective study of patient with dental diseases was viewed In the Department FMC Umuahia between August 2007 to August 2010.

Population of the study

Dentistry department has attended 4,600 patients from 2007-2010. They have Nurses, 10 consultants, 5 dental therapists and two technologists.

Sample size and sampling techniques:

A systematic sampling technique was used to select folder that was attended to. A total of 460 files were reviewed.

Validity and reliability of instrument

The project supervisor scrutinized the data sheets so as to ensure authenticity of all information collected.

Data collection:

A data collection profoma was used to collect information from the folder:

Method for data analysis and presentation:

Data collected will be analyzed using descriptive simple frequency table and Percentage. Statistics using, bar chart and pie chart was used to. Buttress results were appropriate.

Results

Table1: Demographic data

AGE	FREQUENCY	PERCENTAGE
1-10	116	25.2%
11-20	121	26.2%
21-30	80	17.4%
31-40	63	13.6%
41-50	50	10.9%
51-60	20	4.35%
61>	10	2.17%

Table 1: Shows that 460 patients was reviewed. There were 239(51.9% female and 221 (48.0) males the age range of patient seen was between l-65yrs.

Range	-	l-61years
Male	-	221
Female	-	239
Ethnicity		
Igbo	-300	
Hausa	-60	
Yourba	-50	
Others	-50	
Total	-460	

Table 2: Presenting complaint

Presenting complain	N	%
Pain/Toothache	347	75.4%
Swollen/bleeding gum	80	17.4%
Mai- occlusion	15	3.26%
Tooth sensitivity	14	3.04%
Retained root	5	1.09%
	460	

A total of 347 presented in table 2 shows presenting complaint of patient. Majority of the subjects 347 (75.4%) presented with complaint of pain of toothache 17. 4% patient complained of bleeding gum 3.26% complained of mal-occusion while 3.04% complaint of tooth sensitivity.

Table3:   Age and sex distribution patient seen fmc umuahia table

AGE/YEAR	MALE	FEMALE	TOTAL	%
1-10	57	59	116	25.2%
11-20	49	72	121	26.2%
21-30	34	46	80	17.4%
31-40	35	28	63	13.6%
41-50	27	23	50	10.9%
51-60	13	17	20	4.35%
61>	6	4	10	2.17%
	221	239		

The above table shows the ages that are male and female. From*age 1-10.57 are male while 59 are female. From age 11-20 49 are male while 72 are female. From age 21-30 34 are male while 46 are female .from age 31-40 35 are male while 28 are female. From age 41-50 27 are male while 23 are female. From age 51-60 13 are male while 17 are female. From 61 > 6 are male while 4 are female.

Table 4: Pattern of dental diseases

Dental caries and related diseases	Total	Percentage
Dental caries	340	73.9%
Failed amalgam filling	7	15.2%
Retained root	5	1.09%
Periodontal and Related diseases	Total	Percentage
Gingivitis	30	65.2%
Juvenile periodontitis	14	3.04%
Chronic periodontitis	35	7.60%
Malocclusion	15	3.26%
Tooth Sensitivity	14	3.04%
		460

A total of 340 (73.9%) patient presented with dental caries. 7 patients presented with failed amalgam filling. 5(1.09%) of 30(65.2%) presented with gingivitis a total of 35(7.60%) presented with chronic periodontitis. A total of 14 patients (3.04%) presented with juveline periodontitis. A Total of patient (3.26% presented with malocclusion. A total of 14 (3.04%) presented with tooth sensitivity.

Table 5: Common dental problem distributor among patient that attended fmc dentistry department

CARIES TYPES	NO AFFECTED	%
Pits and fissure caries	285	83.8%
Acute caries	22	6.47%
Rampant caries	18	5.29%
Incisal caries	10	2.94%
Root caries	5	1.42%
	340	

Analysis of Table 5 shows common type of dental caries found among Patient assessed 285 (83.8%) are pits and fissure caries, 22-(6.47%) are Acute caries 18 (52.9%) 10 (2.94) are incisal caries while 5 (1.47%) are root caries.

Table 6: Periodontal and related diseases:

Periodontal diseases	Total no of patient affected	%
Gingivitis	30	37.5
Chronic periodontal	35	43.7
Javelin periodontal	15	18.7
	80	

Analysis of table 6 shows the common type of periodontal diseases assessed, 30 (37.5) patients has gingivitis, 35 (43.7%) has chronic periodontal while 15 (18.7%) has javelin periodontal.

Table 7: Ages of patient affected with caries

AGE	AFFECTED	%	NO NOT AFFECTED	%
1-10	90	27.6%	22	18.3%
11-20	94	26.5%	31	25.8%
21-30	65	19.1%	15	1.25%
31-40	44	12.9%	19	15.8%
41-50	35	10.5%	15	1.25%
51-60	10	2.94%	10	8.3%
61>	2	5.89%	8	= 6.6%
	340		120	

Analysis of this table shows the ages of respondent affected with dental caries. 90 patients from ages 1-10 were affected with dental caries 94 patients from ages 11-20 were affected. 65 patients from age 21-30 were affected. 44 patients From 31-40 were affected, 35 patient from 41-50 were affected. 10 patients from 51-60 were affected while 2 patients 61> were affected.

Table 8: Ages group of patients affected with periodontal diseases

Age	No Affected	%	No not Affected	%
1-10	5	6.25%	111	25.2%
11-20	5	6.26%	116	30.5%
21-30	13	16.4%	66	17.4%
31-40	15	18.8%	48	12.6%
41-50	17	23.8%	31	8.6%
51-60	19	21.3%	3	7.8%
61>	5	6.25%	5	1.36%
	340		120	

Analysis of table 8 shows the ages of respondent affected with periodontal Diseases 5 (6.25%) patient with the age 1-10 were affected. 5 (6.25%) within The ages 11-20 were affected. 14 (17.5%) patient with the age 21-30 were affected. 15 (18.8%) patient within the ages 31-40 were affected. 19(23.8%) Of patient within the age range 41-50 were affected. 17 (21-3%) of patient within the ages of 51-60 were affected. 5 (6.25%) of patient with the ages 61> were affected.

Table 9: Gender of respondents affected with dental caries

Gender	No Affected	%	No Not Affected	%
Male	150	44.1%	55	45.8%
Female	190	55.8%	65	54.1%
	340	12	120	

No of male affected with dental caries is 150 (44.1%) from table 4.1.9 above Shows gender of respondents affected with caries 150 (44.1%) were males And 190 (55.8%) were female.

Table 10: Gender of respondents affected with periodontal disease

Gender	No Affected	%	No Not Affected	%
Male	44	55.6%	190	7.4%
Female	35	43.8%	200	54.1%
	79		390	

From table 10 above shows gender of the respondent affected with periodontitis 44 (55.6%) were male while 35 (35 (43.8%) were female.

Table 11: Section of oral hygiene measure of the patient frequency of tooth brush

FREQUENCY OF TOOTH CLEANING	FREQUENCY	%
Once	200	43.5%
Twice	150	32.6%
Occasionally	110	23.9%
	460	

In table 11, shows that 43.5% (200) clean there mouth once a day. 32.6% (150) clean there teeth twice a day then 23.9% (110) clean there mouth occasionally.
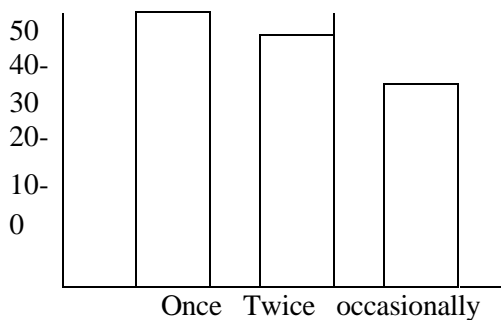
Table 12: Periods of tooth cleaning by patients

Period to tooth cleaning	Frequency	%
Before breakfast only	360	78.2%
After breakfast & dinner	0	0%
Before breakfast & after dinner	100	211.7%

Analysis 12 shows the period of tooth brushing by respondent 360 (78.2%) brushes before breakfast only none brushes after breakfast and dinner while 100 (217%) brushes before breakfast & after dinner.

Fig.1: Interpretation of the diagram

Discussion

This research work is bent on determining the common dental problems among patients that came to FMC Umuahia, Dentistry Department, In Abia State from 2007-2010. A folder was used and 460 patients was selected with stratified sampling. The researcher's questions were answered and discussed as follows:

A. What are the common type of Dental problems among patients that came to clinic at FMC Umuahia. The table from 4.1.5 shows that the common type of dental problems are fissure caries, Acute caries, Rampart caries, under dental caries.

We have periodontal diseases like Gingivitis, Chronic Periodontitis, Juvenile Periodontitis.

B.   What are the age group that is mostly affected with dental caries. Results from 4.1.7 shows that 90 patients of age 1-10 were affected, 94 patients from age 21-30 were affected, 44patient from 31-40 were affected, 35 patient from age 41-50 were affected, 10 patient from age 51-60 where affect, and 2 patients from age 61> were affected. The age group that were affected with periodontal disease are 5 patients from age   group 1-10, 5 patient from age group 11-20, 13 patients from 21-30, 15 patients from 31-40, 17 patients from 41-50, 19 patients from 51-60 years, and 8 patient 61.

C.   Does sex influence the pattern and distribution of dental problem? For dental caries the greater percentage of female has dental caries i. e About 190 patients (55.8%) while male has 44.1% of dental caries Periodontal diseases, a greater percentage of male 55.6% has periodontal Disease while female has 43.8% of periodontal diseases. In order words sex influences the pattern of dental diseases. This survey showed a wide and varied scope in the dental care of patient during a three year period of review in a federal medical center. In this study, toothache (pain) was the commonest complaint encounter by patients who presented for treatment at the dentistry department Federal Medical center. Pain is a very potent factor that drives patient to seek dental Treatment.

More females were seen in this study than male. This study highlighted the various dental diseases seen, and treated at the dentistry department FMC Umuahia. Patients between age 1-10 and 11-20 have higher number of caries than the others. A significant number of patients were seen with malocclusion. There exists a growing awareness of the populace on dental aesthetics and the need for orthodontic treatment especially among children. Dental caries accounted for the highest number of dental disease seen in this survey and it is a leading cause of dental pain, as it is an irreversible process. Dental caries was reported to be commoner in the age younger age group(Rogers,2008) i. e between the ages of 1-10, 11-21 &21-30. Periodontal diseases advances with age(Kidd and Smith,1990).

Conclusion

Dental caries and periodontal disease remain the greatest cause of Mortality in the environment. These two conditions are preventable. Dental caries can be prevented by use of water fluoridation while periodontal disease can be prevented by good oral hygiene measures. Development of appropriate oral health promotion strategies is urgently needed to improve oral health behaviors.

References

Aderinoku, G. (2000). *Introduction to oral health care for community Health workers;* Ibandan, keribian press Ltd; 1st edition.

Cawson,R.A. & Odell, G. W. (1980). *Essentials of pathology and oral medicine;* London, churchil Livingstone; 6^1 edition pp 372.

Havey, S. (2008). Improving the oral health status of all Americans Roles

And responsibilities of academic dental institution. *Journal of Dental Education.* Vol 67 No 564-570.

Kidd, M. & Smith, U. (1990). *Essential of periodontal diseases;* Philadelphia, Febbiger publisher; 1st edition, ppl08-125.

Loe, H. (2000). oral hygiene in the prevention of caries and periodontal disease; *International Dental Journal* Vol 50 No 3, 129-139.

Murray. J . J .(1996) .prevention of oral diseases; New York, Oxford University, Press Int. 3:~ edition.

Rogers, A.H. (2008). *Molecular oral microbiology.* Caslister Academic press accessed from http://www/hhorizonpress. com/oral2 on October 5, 2011 Robinson,