

Some Nigerian Dentists and Oral Health Workers Assessment of the Dental Health Care Needs of Their Nation's Primary School-Age-Children

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Abstract: Though of no less importance than the other aspects of the health care needs of children, observations and personal experiences show that the Nigerian government seems to down play the required attendance to provision for and use of oral and dental health care facilities. This is the focus and report of this assessment survey of 1000 purposive, random sample of dentists and oral health dispensers to children who come under their care in selected urban and rural dental care centers in South-West of Nigeria. The data from the survey highlight the well less than required facilities and poor patronage of the facilities despite the prevalence of related illnesses and diseases peculiar to patients in the age range of 3-13 years. The study thus conclude on the need for the Government to move on the strength of the Child Right Legislation to implementing actions that would not only enhance oral and dental health like fluidization of community sources of water supply, reintroduction of hygiene checks for children in schools and making needed referrals and also allowing donor agencies to participate in fulfilling the oral and health care needs of Nigerian children. This may come through sponsoring and financing Nigerian children's regular visit to the dentists.

Key words: Nigerian dentists, oral health workers, health needs, assessment, primary-school-age, children

INTRODUCTION

Against the backdrop of the Nigerian Democratically elected government's adoption and legislation of the Rights of Children to adequate and full health care as proclaimed by the UNDP (1998) of the United Nation Organization and a need to constantly report on the provisions made to meet the needs of the children, a need to investigate provisions for and attendance to oral and dental health care needs of this population suffices. Though of no less importance as the other aspects of children health care requirements, provision for meeting the oral and dental care needs of the children is down-played in Nigeria as revealed in many print media feature articles and electronic media health programmes dedicated to children's welfare.

It however need be stated that children's (between the age of 3-13 years) oral and dental health have been of interest, concern and strongly advocated for in the many decades past. Buttressing this fact are the Annual School reports dating back to the 1930's of the British, American,

Canadian as well as the other 5 members of the G 8 Governments showing their interest in data related to the nature, occurrence and attempts at treatment by medical experts of such related diseases (O'Neill and Balk, 2001).

This is so because if it is left un-catered for the impact that this over-sight could later have on people's general well being could be debilitating. Medical facts show that the permanent teeth and their structure take shape and form during this period and that diseases and problems at this stage grossly affect adult's life well-being. The advocacy had therefore been for dental and oral health regular inspection, monitoring and care.

Such oral and dental diseases that children suffer from include: dental decay, disorder of the teeth, cavities, gum infections and inflammations, abscessed tooth, missing teeth, toxic substances and bacterial infection, plaques on teeth, tonsillitis, malocclusion or poor or malformed dental structure. These interfere with chewing and the digestive process among the other aches, pains and other nuisances they cause.

Further, on the reason for a sustained interest in data on oral and dental health status of children is the emerging medical fact that their mothers diet during pregnancy has been shown to directly impact their dental formation (Mouatt, 2003; Santrock, 2005). Despite the fact that Nigeria and her citizens had over the years become health conscious, some clear indication of poor oral and dental care from daily experiences is common. This especially is with children of school age who commonly present with hard and soft deposits that had trapped bacteria on the teeth and the gum line, loss of teeth through decay and notable offensive odor due to poor diet and probably lack of supervision of their daily mouth wash by parents or guardians. Many of the efforts of the years past in maintaining a superficial holistic nature of the children through early morning checks on them on the assembly grounds in the nursery and Primary schools, setting a minimum standard of hygiene and cleanliness for pupils by the teachers and headmasters appear to have gone with the years.

Further, given data showing a poor nutritional status of many a Nigerian pregnant mother (Bellamy, 2004), the submission of Erickson (2003) and Ottely (2007) that empirical research data and report that would allow intelligent inferences as to the stability in the dental formation as well as the oral health and indeed general well being status of Nigerian Children is needful, an empirical effort as this study is embarking is needful.

For this, each Nigerian child may need visit a dentist before the eruption of the permanent teeth for examinations that may determine the need for orthodontic and or other dental and oral health care treatments as according to Marinho (2003), permanent teeth come in during middle and late childhood that is from about 9-13. But from experience, this does not obtain with many Nigerian children as their parents are not readily shown to taking them for dental or oral check-ups until often too late and this in the event of diseases or disabling aches and pains. The perennial need for such exercise is made plain by the fact that many of these dental works are vital to the health and welfare of especially children (Smart and Smart, 1974).

Treatments that are recorded to have been meted out to children-patients from time-to-time include: teeth extraction, placement of dentures and orthodontic appliances, filling of cracks, use of fluorides to remove plaques and in the extreme, periodontal and orthodontic surgical operations to correct the malformations.

An area of the vital health care of children as one of the key issues in their United Nations sanctioned fundamental rights and to which Nigeria is signatory is their dental and oral health status (UNDP, 1998). Nigeria

had further passed this into law and each of the composite state in the nation adopting the legislation. It is considered that these efforts to update the holistic health status of Nigerian children would not amount to much unless the reports of experts in the field of oral and dental health care, orthopedics, ophthalmic and oto-rhino-laryngological examinations among other special aspects of child-health-care services are put together and addressed in terms of these health problems manifestations, prevalence, availability of equipment and drugs to eliminate the them, attitudes of significant others (especially the parents and guardians) to them. Of equal importance are data relating to the preparations that are on the ground to control an epidemic in the case of one and that professional health providers as dentists and oral health care dispensers noticed and experience in their practice with the children.

Statement of the problem: Understanding the nature of the oral and dental problems that children of school age come up with in teaching, general and private dental hospitals in Nigeria is centrally important in developing a holistic approach to meeting the health care needs of the children. For its worth, such data would provide a basis to make the required extrapolations of the needs of the several other millions of Nigerian children who could not have access to hospitals and medical treatments. Against the backdrop of Nigeria's on going political and social services reforms for better services and functioning in ministerial and sub ministerial operations and duties, it is considered that data upon which to base a standard children oral health care policy of the health ministry is indispensable.

Relating to this is the need to document for consideration of the law makers and budget makers the needed inter-ministerial efforts that would attend to the immediate oral and dental health needs of the children. For example, the financial and man-power concessions for the provision of the needed machines and materials to meet the dental and oral health care needs of Nigerian children of school age as identified by the dentists and other oral health workers. Also that need be identified are the areas of collaborative programs and efforts between the ministry of education and health to fulfill the purpose of having a holistic approach to the health concerns of Nigerian children. Along this line of thought would empirical answers to agitating questions as:

- How many of their daily/weekly patients turn up to be children of school age?
- What are the dental and oral problems/diseases they present with?
- How prevalent are these diseases?

- Would demographic data about the children reveal a difference in the way the children experience these diseases?
- Do these children health workers have sufficient equipments and drugs to attend to these problems and diseases?
- Would they consider the arrangements and physical environment provisions for attending to their duties sufficient and adequate?

These translate to questions that empirical answers from a sample of dentists and oral health workers in the hospitals and dental clinics that are available in the nation should answer.

MATERIALS AND METHODS

Design: This study is a descriptive aspect of selected Nigerian dentists and oral health workers assessment of the health status of their patients who are children between the age of 3-13 years. Dentists and other oral and dental health care providers assessments come in for consideration here because both Davis (2003) and Santrock (2005) offered as a tool in the study of issues related to children's well being the adoption of the views an judgments of professionals who hold brief for them or are responsible for them.

Population of the study: The study population comprised all the oral and dental care providers (Dental Surgeons, Dentists, Dental and Oral Nurses and Technicians) in Teaching and General Hospitals, Private Clinics in South-Western states of Nigeria (Santrock, 2005). These could be put at an estimate of 7,000 (Federal Republic of Nigeria, 1994).

Sample and sampling technique: Through purposeful, stratified random sampling of the dental health care workers in the 5 South-West geo-political zone of Nigeria. The area of geographical coverage was readily accessible to the researchers and considered adequate for the study. One thousand oral and dental health care workers were selected for participation in the study. Table 1 shows the demographic data of the respondents.

Table 1 shows that of the respondents in this study, 100 are surgeons, 480 were dentists, 400 were nurses and 120 were technicians assisting the dentists and surgeons when and if there is a need for surgical operations. About 870 work in the Urban areas whereas 130 of the respondents serve in the rural areas reflecting the poor attention that are accorded citizens of the nation dwelling in the rural areas. Half of the total respondents

Table 1: Demographic data of respondents in the study

Data	N	%
Status		
Surgeon	100	10
Dentists	480	48
Nurses	400	40
Technician	120	12
Location		
Urban	870	87
Rural	130	13
Age		
below 25	210	21
26-35	500	50
Above 36	290	29
Practicing experience		
0-2	430	43
3-5	400	40
6-10	270	27
Nature of employment		
Government	600	60
Private	210	21
Both	190	19

are in the age range of 26-35, 290 are above the age of 36 while 210 are below 25 years of age. About 600 of the respondents work in government hospitals, 210 in privately run clinics while 190 serve in both private and governmental hospitals. About 430 have had a working experience of 2 years, 400 have worked in their positions for between 3-5 years, while 270 have worked for between 6-10 years.

The instrument: This was a validated set of questionnaires with 15 items culled form the universe of the variable of the services and operations of dentists, oral and oral care workers and providers. The items were set to provide information on whether they have records of patients who are children between the age of 3-13 years, the nature of the dental problems that these children present with when they come for check-ups, complaints or treatments. Whether they have equipments, drugs and other medical needs to attend to the oral and dental illnesses that these set of patients present with. The questionnaires further demanded of the respondents whether they have suggestions for the improvement of the delivery of the dental and oral hygiene of Nigerian children that they have to attend to.

Validation of the instrument

Validity: The items on the questionnaires used for data collection are adequate and satisfies the operational definition of the variable of the study thereby meeting the condition of construct validity (Cozby, 2001). While the content and face validities were adjudged to have been fulfilled by colleagues of the researchers who are in the fields of Tests and Measurements of the Universities of Ibadan and Ado-Ekiti in Nigeria.

Reliability: The stability of the instrument of data collection was established by administering the instrument twice within the space of a fortnight to a set of 30 oral and dental care workers in Ado-Ekiti (who were never part of the final sample). The coefficient of correlation in the two administrations was 0.78. This was considered high enough to allow one take the instrument as stable enough for data collection.

Data collection: Permission was sought from the authorities of the hospitals and oral and dental care centers from where the participants were selected. The purpose of the data collection was explained to the participants individually by the research assistants who usually collect the instrument after their completion. This facilitated a high return of the instrument of data collection. One thousand copies were properly completed and were shown for data analysis.

Data analysis: The properly completed questionnaires were machine scored for both descriptive and inferential analysis.

RESULTS AND DISCUSSION

Table 2 shows that the nature of the oral and dental problems that the dentists and other oral health workers come across in their interactions with patients who are children between the age of 3-13 years. These oral and dental diseases happen as much as with 5 new cases weekly in other words, the respondents at their peak performance of job roles attend to as much as 5,000 new patients weekly.

Table 3 shows that the assessment on the basis of availability and adequacy of a greater percentage of participants in the study is that the essentials for the practice of the oral and dental health care needs of children are either not available or are grossly inadequate.

Table 4 shows that the consensus suggestions of these professionals on actions and policies that would reverse the inadequate approaches to meeting the oral and dental health care needs of Nigerian children. Some of these include: re-activation of the almost abandoned school regular health checks on the children by the school personnel, establishment of collaborative referral programs between the schools and the hospitals and in the hope of government quick response, provision of the state of the art equipments needed for performing the regular indicated surgical operations. The estimates of the patients the dentists and other categories of dental and oral health workers make that they weekly attend to and who are children of school age in this study, Nigerian

Table 2: Nature of dental and oral illnesses reported by the dentists and oral health workers

	Frequency			Total
	Often	Seldom	Never	
Diseases and dental problems	N	N	N	
Malocclusion	623	271.0	106	1000
Cavities	650	-	100	1000
Inflammation of the gums	600	343.0	187	1000
Tooth decay (degenerating condition)	807	19.3	96	1000
Plaque/bacterial infections	900	30.0	70	1000
Missing teeth	904	50.0	56	1000
Tonsillitis	735	230.0	35	1000
Dentinal hypersensitivity	462	400.0	138	1000

Table 3: Availability and adequacy of dental and oral health, service providers, curative drugs and operation equipments

	(a) Availability		(b) Adequacy	
	A	NA	A	NA
Factors	N	N	N	N
Operation equipment	145	855	68	932
Bed spaces for patients in the hospitals	236	764	89	911
Office space for doctors and other O.H.S.P	403	597	117	883
Acceptable office space for health workers	237	763	211	789
Drugs for oral dental problems	477	523	569	431
Out patient department	487	513	568	432
Service providers	542	458	217	783

(a) A-Available; (b) A-Adequate; NA- Not Available; NA-Not Adequate periodontal and malocclusion surgical operations

Table 4: Suggestions by the respondents on improving the present poor dental and oral health care provisions of Nigerian children

Suggestions by respondents	N	%
Community water supply fluoridation	696	69.6
Regular flossin	615	61.5
Community oral and dental health education	704	70.4
Provision for access to gel for regular mouth wash	671	67.1
Re-activation of regular school health checks by school personnel	913	91.3
Collaborative oral and dental health monitoring programs between the schools and hospitals	768	76.8
Provisions for the employment of more health workers and equipments with which to function	896	89.6
Provisions for the state of the art equipments for performing surgical operations	906	90.6

children’s dental and oral health calls for a better attention than being presently provided. This is because simple estimate of the population they reach for service and attendance are just about 20,000 in a month. With the population of Nigerian children being at an estimate of 61 million (60, 391, 320) (Federal Republic of Nigeria, 1994), a thousandth of them would not be reached in a year. This is especially with the notably low number of oral health and dental care workers, rarity of dental oral health clinics, poor access to needful equipments for periodontal and malocclusion surgical operations. The steady stream of Nigerian children who perhaps could be put at a few thousands, notwithstanding, the number being reached for oral and dental health care are far less than the ones

who do not have access to treatments in the hospitals. Quite a much larger population are un-reached for attention of their oral and dental diseases that need be attended to before they start growing their permanent teeth at about 13 or late childhood stage (Santrock, 2005; O'Neill and Balk, 2001; Erickson, 2003).

Though a notable percentage of the dentists and other oral health workers in this study claim they have and do recommend drugs and treatments to patients who are children and who are brought for treatments in the hospital, a sizable percentage believe that there is a large room for improvements.

The issue is that the dentists and oral health workers in this study express inadequacy in the provisions to meet and fulfill the dental and oral health care services of children particularly.

No one is left in doubt that prevention through supervision and insistence on daily oral and dental health practices would have been easier and cheaper methods of doing these as in the past years through the early morning health checks on the children in the morning assemblies in the schools. Also would a larger population have been reached through such a public campaign outlet? But as this health check practice seems to have faded with the years, a larger effort to meet the holistic needs of Nigerian children health indicates.

CONCLUSION

Findings in this study imply that a more determined attention and actions need be directed at fulfilling the oral and dental health care of Nigerian children. For a start, a re-activation of public enlightenment, regular health checks by the school personnel for the children, making financial subventions to schools to help take care of indigent pupils who could not afford the fluoride based tooth paste gels that could help keep the school going children's oral and dental health in good order could be adopted (Davis, 2003; Bauer, 1997).

To make this easier, the government could go into agreement with appealing for allowing and supervising grants from donor agencies for taking care of the holistic and especially dental and oral health care need be sought and harnessed for providing treatment for patients and especially children suffering dental and oral diseases that may need operation and other complex medical and professional handling.

Need for oral hygienists to sensitize parents to the symptoms of oral and dental illnesses of children, talks to

mothers and guardians on need to create time for their children's compulsory visit to the dentist via an intensive (national) campaign and the development of collaborative functions of the related workers in the ministries of education and health are all indicated in the findings from this study.

RECOMMENDATIONS

It has become apparent that public knowledge based on research and practice is far less than is reflected in the current services provided for oral and dental health care of Nigerian children. What is greatly needed are public advocates, people who can put pressure on state and federal government representatives and officials to implement the legislation and provide leadership and funding for these services on behalf of the children who cannot do it for themselves. This is needful if a true holistic approach to their health concerns would be shown much more attention as been claimed in the on-going reforms in the ministries and other governmental parastatals.

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