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Perception and Practices of Nomadic Women in a Rural Community in Southwestern Nigeria to Their Children's Oral Health

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Abstract

Introduction: Nomads move from one settlement to another, thus it has been difficult to have adequate documentation about their oral health and that of their children.

Aim: To investigate the perception and practices of nomadic Fulani women toward their children's oral health.

Methodology: A cross-sectional study was conducted among 197 Fulani women using a structured interviewer administered questionnaire.

Results: Perceived causes of tooth decay included tooth germs/worms (23.9%) and sugar (5.1%), and 32.0%, 15.2%, and 5.1%, respectively, self-medicated children with antibiotics, traditional concoctions/herbs, and analgesics for tooth decay. Two fifths (40.1%) attributed bleeding gums to tooth germs/worms. Polyurethane foam (46.7%), toothbrush (32.0%), finger (18.8%), and wooden twigs (2.5%) were aids used for cleaning children's teeth.

Conclusions: These mothers have suboptimal oral health knowledge, attitudes, and practices toward their children's oral health. There is a need for urgent intervention among this group of people.

Keywords

attitudes, children, knowledge, nomadic, oral health, practices

Introduction

Oral health has been found to be a vital aspect of general health in children which influences their health outcomes and overall quality of life.[1] Oral health practices and development of attitudes toward oral health can be influenced by many factors, of which importantly is the family unit. Parents, usually, are the primary decision makers on issues affecting their children's health and health care.[2,3] Mothers have been recognized to be important in the early development of healthy oral habits in children[4] as they act as role models for their children. For this reason, the parents' oral hygiene habits are important to promote and improve access to oral health care in their children.

Although dental caries levels have declined and stabilized globally, the problem of early childhood caries has remained persistent in many areas of the world and has affected certain segments of the society especially the underprivileged[5,6] who are at a higher risk of developing the disease. Also, gingival disease and poor oral hygiene have been found to be highly prevalent among children in developing countries particularly in rural areas.[7,8] Poor oral health in school-aged children has been linked to decreased school performance, poor social relationships, and significant negative effects on the family's financial status.[9,10] This makes it important to plan appropriately preventive and oral health program for children irrespective of their tribe. Although such programs are being implemented in various regions in developing countries like Nigeria, this has not being fully extended to tribes such as the nomadic Fulani who are always on the move.

The nomadic Fulani tribe who are mainly cattle herders move from one place to another and are located in the remote areas of the savannah region in Nigeria. Since cattle are their

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sources of livelihood and losses may result in financial bankruptcy, the Fulani nomads are highly suspicious of attempts to penetrate their closely knit tribal structure. Hence, it has been difficult to access their communities particularly for health concerns and oral health care making it impossible to plan and implement oral health promotion programs for them most especially their children. In addition, there is a dearth of information on the oral health knowledge, attitude, and practices of the nomadic Fulani population in Nigeria as it relates to their children's oral health.

Evaluating the depth of a mother's knowledge on health particularly oral health is essential as the majority of the decisions with regard to the health of the child will be based on her knowledge. This is particularly important, since mothers are the primary care givers, who have been identified as important personnel when it comes to promoting oral health among children.[4] The aim of this study was to assess the perception and practices of nomadic Fulani women in a subpopulation in Igbo Ora in southwestern Nigeria. It is expected that the results of the study will give baseline information, which will serve as a guideline on which oral health education can be based.

Methodology

Study Area

Igbo Ora is a town located 50 miles north of Lagos and serves as the administrative capital of the Ibarapa Central Local Government of Oyo State.[11] It is a multiethnic community and home to the majority indigenous Yoruba and migrant minority groups including the Fulani cattle herders. The Fulani subpopulation in Igbo Ora is located in three settlements within the community, which is remotely located in the savannah areas.

Sampling Method

A descriptive cross-sectional study in the form of house-to-house survey was conducted among nomadic Fulani women residents of three rural settlements in Igbo Ora community in southwestern Nigeria over a period of 3 weeks. All the women in these three settlements consisted of the study population and a total enumeration of the women at these three study sites was done. Data on the beliefs and practices of mothers as regards the oral health of their children were collected using structured interviewer administered questionnaires.

The data instrument consisted of a 32-item structured interviewer administered questionnaire designed and translated into Yoruba language spoken by majority of the participants. The questionnaire was back translated from Yoruba to English language and all minor discrepancies modified accordingly. A trained research assistant and a community health worker fluent in Yoruba language administered the questionnaires. Community members assisted with interpretation for those who only understood the Fulani language and could not speak the Yoruba language. The questionnaire was divided into four parts: basic demographic data (4 items); knowledge of the children's dentition, causes of bleeding gums, and dental decay (7 items); attitude toward child's oral health (2 items); and practices of mothers regarding child's oral health (19 items). The questionnaire was pilot tested for validity among 10 mothers who were not part of the study population and corrections regarding ambiguous statements were effected in the final questionnaire. Exclusion criteria included all mothers who were not willing to participate in the study.

Data were collected, cleaned, coded, and analyzed using SPSS version 21. Frequency distributions were generated, and Chi-square was used to test the significance of categorical variables. Associations were considered significant when p-values were less than .05.

The research was approved by the Oyo State Research Ethical Review Committee in Ibadan, Nigeria.

Results

Sociodemographic Data

A total of 197 respondents were interviewed. The mean age of the participants was 26.9 years ($SD = 8.35$). The majority of the respondents (91.4%) were married. Over half (56.9%) had no formal education and slightly less than a quarter (23.9%) had primary education. Less than two fifths (18.3%) had secondary education. Majority of the respondents (75.6%) were unskilled workers, 7.6% were skilled workers, and 25 (12.7%) were full-time housewives (Table 1).

Oral Health Knowledge

Considering the types of dentition, 118 (59.9%) mothers knew that milk dentition existed, while 65 (33.3%) believed that only adult teeth existed. Thirteen (6.6%) respondents had no idea of what types of dentition existed. Over half (57.9%) of the mothers knew that children's teeth required adequate care despite the fact that they would fall off.

Regarding tooth decay, about half (53.3%) of the respondents knew that tooth decay is caused by poor oral hygiene, 47 (23.9%) attributed it to tooth germs/worms, while only 10 (5.1%) knew it was caused by sugar. However, 31 (15.7%) had no idea of its cause (Figure 1).

To treat children's tooth decay, a third (32%) will give antibiotics (specifically tetracycline), 41.6% will consult dentist, 15.2% will give herbs and concoctions, 5.1% will give analgesics, while 5.1% had no idea of what to do (Figure 2).

Causes of bleeding gums were attributed to poor oral hygiene (43.1%), tooth germs/worms (40.1%), while 11.7% did not know the causes (Figure 3).

To treat bleeding gums, over two fifths (45.1%) will engage in self-medication by giving their children drugs (antibiotics and analgesics), less than a third (29.4%) will consult the dentist, while 10.2% will give children herbs and 8.6% did not know what to do (Figure 4).

Table 1. Sociodemographic Variables of the Respondents ($N = 197$).

Variables	*n*	%
Age (years)		
≤20	58	29.4
21–30	97	49.2
31–40	31	15.7
41–60	11	5.6
Marital status		
Single	17	8.6
Married	180	91.4
Educational status		
No formal education	112	56.9
Primary	47	23.9
Secondary	36	18.3
Tertiary	2	1.0
Occupation		
Skilled laborers	15	7.6
Unskilled laborers	149	75.6
Students/skilled workers	8	4.1
Unemployed	25	12.7

Note. *n*, number of respondents.

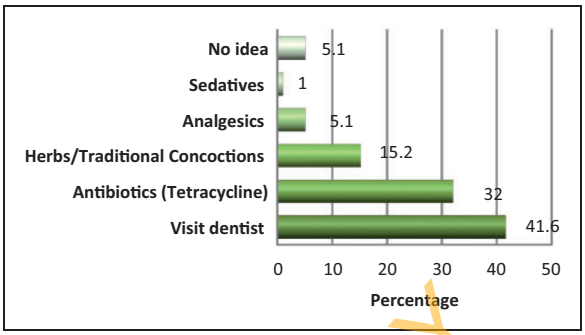

Figure 2. Respondents treatment regimen for tooth decay in children.

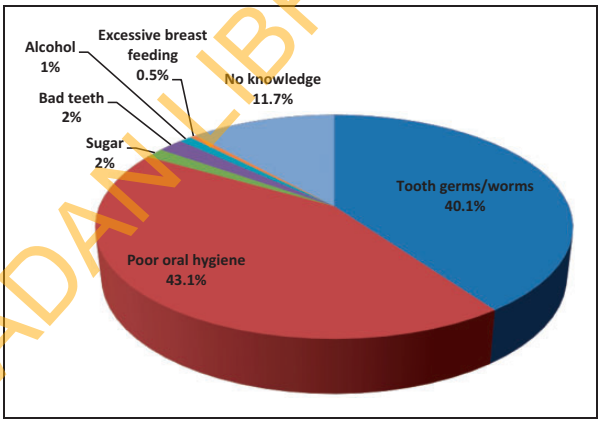

Figure 3. Respondents perceived causes of bleeding gums in children.

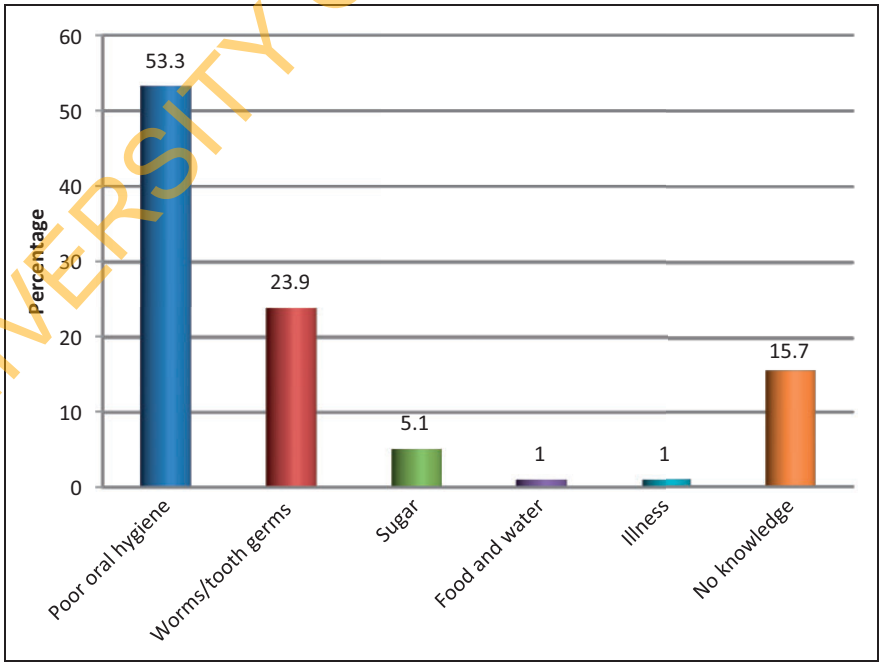

Figure 1. Respondents knowledge of causes of tooth decay.

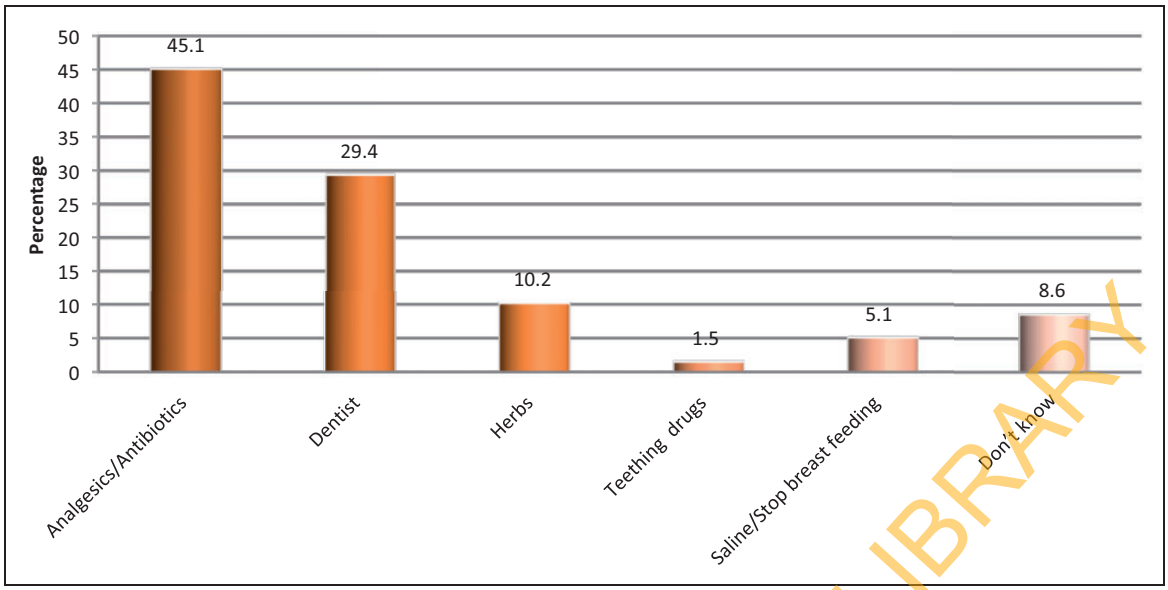

Figure 4. Respondents treatment regimen for bleeding gums in their children.

A greater proportion of mothers who had received prior oral health education will give their children drugs to treat bleeding gums ($p = .018$).

Regarding oral health education, over two thirds (69.5%) had received oral health prior to this study. Sources were from the doctor/dentist (42.6%), nurses (24.9%), and electronic media (2.0%) (Table 2).

One hundred and thirty-two (67.0%), 36 (18.3%), and 35 (17.8%) mothers associated teething with fever, coughs/catarrh, and diarrhea, respectively. Very few, 6 (3.0%) and 5 (2.5%), respectively, believed teething was associated with irritability and vomiting. Older mothers (83.3%) believed that irritability accompanies teething compared to younger mothers (16.7%) ($p = .044$). A greater percentage of mothers who had prior visits to the dentist believed fever ($p = .06$), cough/catarrh ($p = .042$), and irritability ($p = .004$) accompany the teething process. Many (68.5%) of the mothers will visit the doctor/dentists for child's perceived teething symptoms, while 15.7% will give child herbs/concoctions. Seventeen (8.6%) and seven (3.6%) will give children antibiotics and analgesics, respectively, while a few (2.0%) used teething powder/teething soap. A greater proportion of those who had previously visited the dentist will see the doctor/dentist when child is having teething symptoms ($p = .000$). Also, more of those who had received oral health education will take the child to the dentist for perceived teething symptoms ($p = .011$).

Table 2. Pattern of Utilization of Dental Services and Experience With Oral Health Education of Respondents (N=197).

Variables	*n*	%
Parents' prior dental visit		
Yes	112	56.9
No	85	43.1
Children's prior dental visit		
Yes	114	57.9
No	83	42.1
Received oral health education		
Yes	137	69.5
No	60	35.5
Source oral health education		
Electronic media (radio/television)	4	2.0
Doctor/dentist	84	42.6
Nurse	49	24.9
Never received oral health education	60	30.5

Note. *n*, number of respondents.

Attitudes

The majority, 125 (63.5%), of mothers stated that commencement of cleaning of children's teeth should be between 6 and 12 months of age. Only 14.2% of mothers believed baby's mouth should be cleaned before teeth erupt, while 15.7% would clean the child's tooth when 12 months of age or older. Many (77.2%) of the mothers believed that oral diseases could be prevented, while 8.1% did not know.

Practices

Diet. Regarding the diet of their children, mothers less than half (46.2%) gave children sugary diet with meals, two fifths (43.1%) in between meals, while a tenth (10.7%) before going to bed/without a defined pattern (Figure 5).

The majority (68.0%) fed babies with sweetened drinks/juice in bottles and 82.7% used Sippy (nonspill) cups to give sweetened juice/drinks to children. Many (88.3%) gave children sweets to reduce temper tantrums and 71.6% gave infants pacifiers dipped in sweet liquids (Figure 6).

Younger mothers (61.7%) used pacifiers dipped in sweet liquid more often than older mothers (38.3%) ($p = .007$). Also, younger mothers (61.2%) gave baby bottle with sweetened juice/drink more often than older mothers (38.8%) ($p = .034$). A greater proportion of those mothers who had visited the dentist gave children sweets to reduce temper tantrums ($p = .006$). A higher percentage of those who had received oral health education fed babies with sweetened drinks/juice in bottles ($p = .001$), used Sippy cups to give sweetened juice/drinks to children ($p = .000$), gave children pacifiers dipped in sweet liquids ($p = .000$), and gave children sweets to reduce temper tantrums ($p = .000$).

Oral hygiene measures. Polyurethane foam was the major cleaning tooth aid used by mothers, as over two fifths (46.7%) used it to clean their children's teeth. Only a third (32.0%) used toothbrush, while 37 (18.8%) used their fingers and water. Five (2.5%) mothers used wooden twigs (Figure 7).

One hundred and seventy-eight (90.4%) of the respondents claimed they used toothpaste as cleaning agent for their children's teeth. Only six (3.0%) and two (1%) used ground ceramics and sand, respectively. Eleven (5.6%) mothers used nothing. A greater percentage of mothers who received oral health education used toothpaste to clean their children's teeth ($p = .027$).

About three fifth (59.4%) of the mothers cleaned their infants teeth once daily, while a quarter (25.9%) cleaned it twice daily. Twenty-two (11.2%) cleaned children's teeth occasionally/irregularly. A greater proportion of mothers who have visited the dentist cleaned child's teeth twice daily ($p = .001$).

The majority of the mothers (61.4 %) allowed children to start cleaning their teeth unsupervised before the age of 6 years, while over a third (36.0%) allowed them once they were over 6 years of age. More of mothers who had not received prior oral health allowed children under 6 years of age to brush teeth unsupervised ($p = .006$).

Only 31 (15.7%) of the respondents helped with cleaning of their children's teeth. Majority of the supervision (75.1%) was carried out by the grandparents. Mothers aged 27 years or more were more likely to clean their children teeth (58.1%) compared to younger mothers (41.9%) whose children's teeth were cleaned by their grandparents ($p = .001$). The teeth of the children whose mothers had received oral health education was cleaned by grandparents ($p = .014$).

Utilization of dental services. Over half (56.9%) of the mothers had prior consultations with the dentist. Of these, 69 (35.0%) did so in the last 1 year, while 9 (4.6%) had been there twice for various complaints and 34 (17.3%) when they had

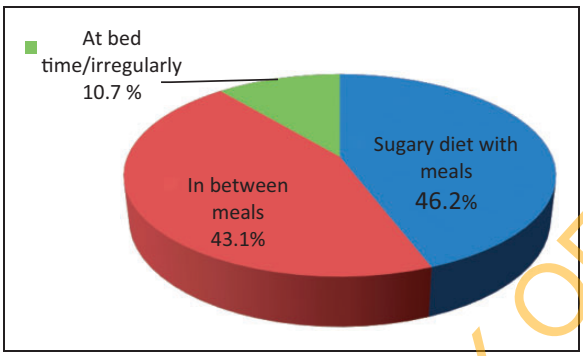

Figure 5. Sugary diet given to children by the mothers.

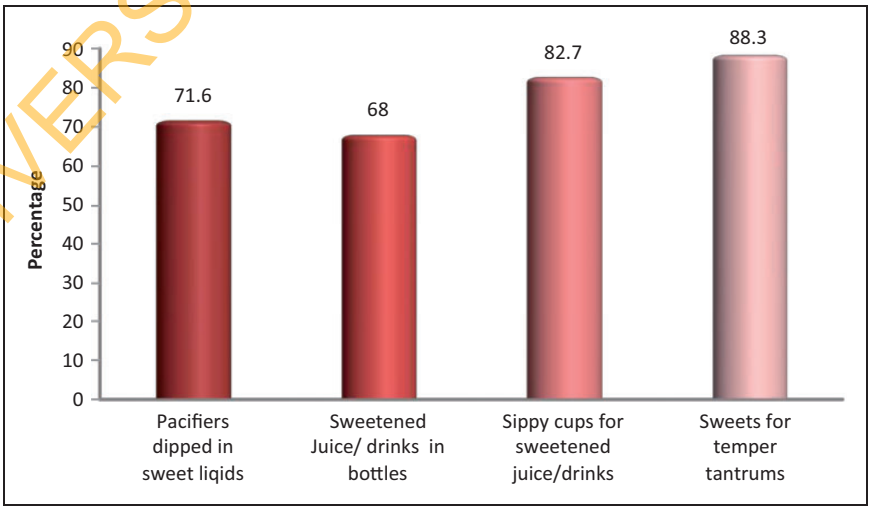

Figure 6. Methods of sweet liquid consumption by respondents' children.

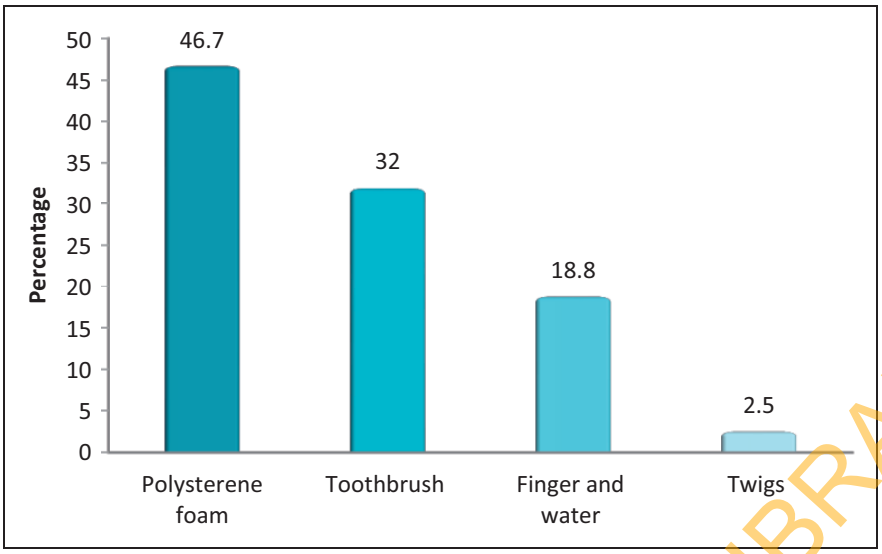

Figure 7. Cleaning aids used to clean children's teeth.

toothache. More than half (57.9%) had taken their children for dental visits and all did so because of one complaint or the other (Table 2). Younger mothers (age < 27 years) were more likely to take their children for dental consultations when they had dental problems compared to older mothers (63.2% vs. 36.8%, $p = .036$). The mothers who had prior dental consultations were also more likely to take their children for dental visits than those who had never visited the dentist (69.6% vs. 42.4%, $p < .001$).

Discussion

The Fulani are a group of West African pastoralists who move over vast areas of savannah in search of grass for their cattle. There has been generally limited access to the nomadic Fulani community in Nigeria partly due to their remote location and also as a result of conflicts between the herds' man and their host communities. For this reason, data on their health care in particular their children's oral health are very sparse and necessitated this study.

Our study demonstrates that over half (59.9%) of the mothers mentioned that only the milk dentition existed, while a third (33.3%) stated that only adult teeth existed. Only one mother knew there were two sets of dentition. Oredugba et al.'s[4] study revealed that a larger proportion of mothers (72.9%) knew there were two sets of dentition. This may also be explained by the higher educational level of the respondents in their study which could have led to a greater level of awareness of their oral health.

Regarding the importance of children's teeth in our study, more than half (57.9%) knew that children's teeth required adequate care despite the fact that they would fall off. This is lower than in Oredugba et al.'s study[4] (95.2%), but higher than (37.2%) that was reported by Jain et al.[12] In a Tanzanian study,[13] 23% of parents did not want premature loss of teeth in their children and were disposed toward natural teeth. Other studies have documented high proportion of mothers acknowledging that deciduous teeth are important despite the fact of being eventually lost.[14–16] On the other hand, reports from some other researchers showed that primary teeth were not considered important.[17,18]

There was poor knowledge about the causes of tooth decay. About half (53.3%) believed tooth decay is caused by poor oral hygiene, while a fifth (23.9%) attributed it to tooth germs/worms. Only 5.1% knew it was caused by refined carbohydrates. According to Orenuga and Sofola,[19] only half of Nigerian pregnant women in Lagos, who participated in their study, knew the correct etiological causes of tooth decay, while 64% of the mothers knew the causes of tooth decay and that it could be presented in the study by Oredugba et al.[4] Increased sugar consumption was identified as one of the causative agents for dental caries by 48.8% of mothers/pregnant women in a study by Nagaraj and Pareek.[16] In our study, the proportion of mothers who knew that sugar was an etiological factor in the cause of dental caries was, however, much lower. In treatment of tooth decay, about a third (32.0%) of mothers will give children antibiotics, while 15.1% give herbs and concoctions. About two fifths (41.6%) will seek consultation with the dentist, while 5.1% simply just did not know what to do.

Similarly, there was poor knowledge regarding the causes of bleeding gums in children. Over two fifths (43.1%) believed it was caused by poor oral hygiene, 40.1% by tooth germs/worms, while 11.7% had no idea. For the treatment of bleeding gums, 45.1% will give their children drugs (antibiotics and analgesics), while 10.2% will give children herbs. Only 29.4% take the child to the dentist. A greater proportion of mothers

who had received prior oral health education resorted to self-medication to treat bleeding gums in their children.

The implication of the indiscriminate use of antibiotics among infants is that the child is at risk of developing adverse reactions such as hypersensitivity to the antibiotic and there is the potential for building of resistant bacterial strains.[20] The latter particularly happens as many give children insufficient dosages for inadequate length of time. Many of these antibiotics are purchased in patent medicine stores and mainly from drug peddlers in the market places, whose expiry dates are sometimes not imprinted in their packaging. Self-medication, consumption of herbs, and concoctions could pose dangers to the children. Mothers also would administer traditional concoctions. Many of these are not scientifically tested with undetermined doses and content[21] may be of danger to the health of the child. Documentations have revealed that the use of concoctions have sometimes led to some fatalities in children.[22] Furthermore, among the rural dwellers, the pastoralists are at a disadvantage in getting medical services. Yet, of all Nigerians, the Fulani are the most vulnerable to diseases and natural hazards. Unless these afflictions become debilitating, the Fulani will usually use their natural immunity, local herbs, and time-healing to outlive the ailments.[23] This may partly explain why a lot have resorted to herbs and traditional concoctions for their children.

Concerning the diet, our study shows that 46.2% gave children sugary diet with meals, 43.1% in between meals, and 10.7% before going to bed/without a defined pattern. The pattern of sugar consumption in-between meals was higher than the finding of Jain et al.,[12] where 35.5% of mothers gave their children sugary diet in between meals and 4.2% before going to bed.

Regarding baby feeding, 68% fed babies with sweetened drinks/juice in bottles, 82.7% use Sippy (nonspill) cups to give sweetened juice/drinks to children, 88.3% reduce temper tantrums in children by giving them sweets, while 71.6% give children pacifiers dipped in sweet liquids. The proportion of mothers who gave babies pacifiers dipped in sweet liquids was higher than in the study by Nagaraj and Pareek[16] in which 42.8% working mothers and 35.4% house wives gave babies pacifiers dipped in sweet liquids. Younger mothers used pacifiers dipped in sweet liquid and gave baby bottle with sweetened juice/drink more often than older mothers. A greater proportion of those mothers who had visited the dentist gave children sweets to reduce temper tantrums. A higher percentage of those who had received oral health education fed babies with sweetened drinks/juice in bottles, used Sippy cups to give sweetened juice/drinks to children, gave children pacifiers dipped in sweet liquids, and gave children sweets to reduce temper tantrums. Despite the fact that over two thirds of these women have received some form of oral health education, their children's diet practices were still poor with a very high risk for dental caries. The children in this study were all taken for symptomatic visits to the dentists. The Fulani diet usually includes milk products such as yogurt, milk, and butter. Every morning they drink milk or gruel made with sorghum, *Fura da Nono*, which is a Fulani delicacy. However, a lot of these meals are sweetened with sugar. Local sweets, especially *Alewa*, *alkali* are produced and given to the children.

Our study revealed that over two thirds (69.5%) of the respondents have received oral health education by the doctor/dentist, while only 2% from electronic media. These findings are in contrast to Oredugba et al.'s[4] study where the major source of oral health education was from the electronic media. This can be explained by the fact that the respondents in our study live in the rural setting with very few having electricity, television sets, Internet facilities, and the community oral health clinic in Igbo Ora has been conducting oral health education regularly in the community. Furthermore, majority have low level of education (mainly illiterate/primary school education) and not computer literate. The mothers in the study by Oredugba et al.[4] live in a cosmopolitan city of Lagos and had a higher level of education.

Knowledge of commencement of cleaning of children's teeth was poor. About two thirds (63.5 %) believed teeth cleaning should commence between 6 and 12 months of age, while 15.7% stated that it should be after child's first birthday. Poor knowledge of tooth cleaning has also been reported among mothers in Mumbai, India, as 14% started cleaning child's teeth after all primary teeth have erupted, while only 21.1% cleaned soon after first milk tooth have erupted.[12] Mothers in the study conducted by Suresh et al.[24] were of the opinion that child's teeth should be cleaned only after all primary teeth have erupted. Also, only 14.2% of mothers in this study believed baby's mouth should be cleaned before teeth erupt. Some studies are in consonance with this findings as majority of mothers believed that child's mouth/gums should not be cleaned before eruption of teeth,[25,26] while on the contrary, majority of Saudi mothers (88.1%) agreed to the fact that there is a need to clean baby's mouth before eruption of teeth.[15] Polyurethane foam was the major cleaning tooth aid in this study (46.7 %). Only a third (32%) used toothbrush, 18.8% used finger and water, and 2.5% used twigs. The portion of mothers who used toothbrush for cleaning their children's teeth was less compared with Jain et al.'s[12] study in which 78.9% of their children brushed their teeth with toothbrush, while 10.7% used finger and water. Twigs/chewing sticks are usually hard and dry. Wooden twigs locally known as *Muswaki* are also used by the Somalis to clean the teeth.[27] The stick is soaked in water to soften it and the ends are chewed to create fiber bristles. The preschool child does not have good mastery of eye and hand coordination or small muscle control and cannot chew stick into a soft fray.[7]

Majority of mothers (90.4%) in our study used toothpaste as cleaning aids. A few (3.0%) used ground ceramics, 1% used sand, and 5.6% used nothing. This was higher than 82.7% in the study by Jain et al.[12] It is good that majority of them used toothpaste as a cleaning agent. A greater

percentage of mothers who received oral health education used toothpaste to clean their children's teeth ($p = .027$).

Considering oral hygiene habits, about three fifth (59.4%) of the mothers cleaned their infants teeth once daily, a quarter (25.9%) twice daily, and a tenth (11.2%) occasionally/irregularly. A greater proportion of mothers who have visited the dentist cleaned child's teeth twice daily. This may be due to oral health education received from the dentist. Those who brushed children's teeth twice daily was lower than in Oredugba et al.'s[4] study where only 32% cleaned children's teeth twice daily and in the study by Jain et al.,[12] where 41.0% brushed twice daily. The lower percentage could be attributed to the fact that our respondents are rural dwellers belonging to the low social class. A correlation of parents' social class and frequency of tooth brushing exists as children from a low social class are reported to have a lower frequency of tooth brushing.[28]

Regarding who cleans children's teeth, this study showed that majority (61.4 %) allowed children to start cleaning their teeth unsupervised when less than 6 years and slightly over a third (36.0%) when they were 6 to −10 years old. More of mothers who had not received prior oral health education allowed children under 6 years of age to brush teeth unsupervised ($p = .006$). This is similar to that seen in Somali children as they too are expected to clean teeth on their own from 3 years of age since their families are large.[27] Only 15.7% of the respondents were actively involved with the cleaning of their children's teeth. This was much lower compared with Rwakatema and Nganga's study[13] in which 43.1% of mothers supervised their children's tooth brushing. In the study by Okolo et al.,[7] mothers did not know children have to be assisted in cleaning their teeth till they were 7 years of age. Majority of the supervision (75.1%) in this study was carried out by the grandparents. This can be attributed because of their communal lifestyle. Mothers aged 27 years or more were more likely to clean their children's teeth (58.1%) compared to younger mothers (41.9%) whose children's teeth were cleaned by their grandparents. More teeth of the children whose mothers had received oral health education was cleaned by grandparents ($p = .014$). This shows that the health education they received had little impact in altering their attitude/practices regarding their children's oral health. Below the age of 6 years, the motor functions of children are not fully developed[29] and therefore need to be supervised during tooth brushing. During the process of learning to brush, children only play with the toothbrush in their mouth and do not actually clean their teeth.[30] Therefore, mothers play a key role in helping their children by teaching them favorable oral habits.

This study showed that 56.9% of the mothers had prior consultations with the dentist, of these 35.0% did so in the last 1 year when they had complaints and 17.3% when they had toothache. This is higher than findings by Oredugba et al.,[4] where 42.3% of the mothers had previously attended the dental clinic with only 4.8% attending in the last year. The reason for this may be due to the fact that the subjects in our study were less educated and so paid less attention to their oral health, thus having greater oral health problem than in the study by Oredugba et al.[4] Also, the diet of the Fulani is rich in sugar making them at risk of oral disease and this may have constituted a greater oral heath burden necessitating symptomatic visits to the dentist.

More than half (57.9%) of mothers had taken their children for dental visits. These were symptomatic visits mainly for extraction of teeth. None of the children were taken for routine dental visits. The age of the mother was associated with dental utilization of children as younger mothers <27 years (63.2%) took their children for dental consultation when they have dental problems in comparison to the older mothers (36.8%). There was a greater tendency for mothers who had prior visits to the dentist to take their children for dental visits (69.6%). Dental service utilization in this study was higher than in Moshi, Tanzania, where only 11.5% of the children had been taken for dental visits.[13] It was, however, similar to findings among mothers of preschool children in Mumbai, India, in which 54.7% of mothers took children to the dentist when they had problems.[12] According to Nagarag and Pareek,[16] 34.7% of pregnant women and 29.4% of mothers insisted that a child should only be taken to the dentist only when there is pain. It can be safely inferred from this study that the mothers would only take children for visits only if they had dental problems. The American Academy of Paediatric Dentistry guidelines advises currently that a child's first dental visit range from as soon as first teeth erupt to the age of 1 year.[31] It is more probable that an earlier routine visit to the dentist might prevent early childhood caries and gingivitis because it gives the dentist an opportunity to provide parents with information about healthy feeding habits and oral hygiene. The American Academy of Paediatric Dentistry recommends that parents should establish a dental home by 12 months of age.[31]

Conclusion

The findings of this study have revealed that there are knowledge gaps and suboptimal practices regarding oral health of children. The mothers and their children utilized emergency and curative dental services rather than preventive services.

Recommendation

Parents' knowledge and positive attitude toward good dental care are important in the preventive cycle. To initiate basic good health habits in childhood so that appropriate dental norms can be established and maintained in adult life, which will be worthwhile by improving the mothers' knowledge on child's oral health because majority of the decisions with regard to the health of her child will be based on her knowledge. There is a need for urgent intervention among this group of people.

Limitation

A major limitation is that only the three nomadic Fulani settlements in Igbo Ora community were studied. These communities are remotely located in the savannah regions and difficult to access and attempts at penetration of their closely knit tribal structure may be misconstrued and pose attendant risks to the researchers because of their highly defensive nature. There is a need for further research in other Nigerian towns to obtain a desirable large sample size to investigate more about the nomadic Fulani women and their children's oral health.

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