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Research Article

Child and Maternal Oral Health Habits and Health Status in a Tertiary Dental Hospital in Ibadan, Nigeria.

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Abstract
The association between oral health and the habits of mothers and their children has received little attention in Nigeria, and the factors that influence this relationship are unknown. The objective of this study was to find out if there is an association between mothers' oral health, oral health practises and their children's. A convenience sample of 288 mother-child pair was recruited consecutively from a tertiary hospital's dental clinic for this cross-sectional study. An interviewer-administered semi-structured questionnaire was utilised to collect socio-demographic data of the child, child's/mother's oral health behaviour and practices such as frequency of tooth brushing, tooth cleaning agents, past dental visits, and reason for the dental visit. Dental caries status was determined for children and their mothers using decay, missing due to caries and filled deciduous teeth (dmft) /decay, missing due to caries and filled permanent teeth (DMFT), while simplified oral hygiene index was used to evaluate each participant's oral hygiene. Oral hygiene was classified as poor, fair or good. Data were analysed using Chi-square test and Kappa statistics at $p \leq 0.05$. There were 137 male and 151 female children. The mothers' ages ranged from 26 to 65 years, with a mean age of 40.9 years, and the children's ages ranged from 1 to 15 years, with a mean age of 9.0 years. Poor oral hygiene status was found in 16.3% of mothers and 9.4% of children. The agreement between mothers' and children's oral hygiene status was fair (Kappa = 0.215). Mothers with primary or no formal education had higher odds of having children with dental caries than those with tertiary education (OR = 4.22; 95% CI: 1.29, 13.84). The level of agreement between mothers' and children's oral health practises ranged from none (kappa = 0.156 and 0.170) to medium (kappa = 0.339) and moderate (kappa = 0.496). Children whose mothers had a high level of education had better oral hygiene and a lower risk of dental caries. Mothers' oral health status exhibited no discernible effect on their children's oral health status, implying that boosting parents' awareness and attitudes about oral health may have a limited impact on their children's oral health practises and status. Dentists should take advantage of any opportunity to educate paediatric patients on expected and appropriate oral health practices.

Key Words: Oral hygiene, Oral health status, Dental Caries, Oral health practices

INTRODUCTION

It is well known that the oral health status of children in developing countries follows the pattern of socioeconomic distribution in that population (Petersen, 2009). Children from low socioeconomic class often have the largest share of oral diseases but limited access to quality dental care (Olutola and Ayo-Yusuf, 2012; Martins, et al., 2014). In addition, the quality of oral health care received by children depends on the disposition of their mothers as majority of the child's time is spent with the mother (Adeniyi et al., 2009; Hooley et al., 2012) Some research suggests that the mothers' oral health skills and attitudes influence the oral health status of their wards.

In developing countries, a link has been established between mothers' oral health and that of their children (Köhler and Andreen, 1994; Hooley et al., 2012). Mothers who show favourable attitudes towards the importance of oral health such as good tooth brushing habits, dietary habits, and food choices may have children with good oral health status (Vanagas et al., 2009; Paunio, 1994; Mattila, et al., 2000). The relevance of this link emphasizes the significance of knowing the magnitude of these relationships between the duo's oral health status as well as strength of the association with related factors (Vanagas et al., 2009; Dye, 2011). Notably, the educational level and socioeconomic class of the mother has been demonstrated to greatly influence the dietary habit of the child (Mennella et al., 2006; Thompson et al., 2009). Children from low socioeconomic class, those whose mothers have little, or no formal education consume higher amounts of sugars than those from a higher socioeconomic class or whose mothers are educated (Mennella et al., 2006; Thompson et al., 2009).

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In Nigeria, studies have shown that low oral health awareness, poor knowledge, and attitude towards oral health exist among mothers (Aderinokun et al., 1998; Orenuga and Sofola, 2005), this may invariably influence the oral health status of their children. Although evidence suggests that there may be a correlation between oral health statuses of Nigerian mothers and their children, there are limited data to support this observation (Vanagas et al., 2009; Bozorgmehr et al., 2013). Previous research primarily focused on mothers' knowledge, attitudes, and behaviours (KAB) as it relate to their children's oral health, with little information on the translation of these mothers' KAB on their own oral health status which may have an impact on their children's oral health also (Adeniyi et al., 2009). Therefore, this study aims to fill the existing gap in the literature as regards the understanding of the relationship between mothers'oral health status, practices, and those of their children.

MATERIALS AND METHODS

Study design, site and population: This was a prospective cross-sectional study conducted between December 2016 and December 2018 at the Paediatric Dentistry clinic of University College Hospital, Ibadan Nigeria. All mother-child pairs (n = 298) who presented at the dental clinic of the University College Hospital, Ibadan were eligible to participate in the study. However, only mothers who consented (n = 288) to participate in the study by signing an informed consent form were recruited. A child and mother were considered as a child/mother pair and those whose caregivers or accompanying adults were not the biological mothers were excluded from the study.

Variables and Data Collection Procedure: An interviewer administered semi-structured questionnaire was used to collect data independently from the child and mother except where the child could not respond to the questions. The questionnaire contained information on socio-demographic data of the child, child/mother's oral health behaviour and practices such as frequency of tooth brushing, tooth cleaning agents, previous dental visits, and reason for the dental visit. The socio-economic status of the family was determined using father's occupation and mother's level of education (Oyedeji, 1985). Each child's social class was classified into class 1(Upper class), class II (Upper middle class), class III (Middle class), Class IV (Lower middle class) and class V (lower class). Mothers' level of education was recorded as tertiary, secondary, primary, and illiterate using modified educational classification of Oyedeji (1985).

The administration of the questionnaire was followed by a comprehensive oral examination of both the child and mother, which was performed independently by different examiners. Prior to the commencement of the study, the examiners were trained, and inter- examiners' differences were discussed. The intra and inter-examiner reliability was assessed by the examination of 10 children on two different occasions and the Cohen kappa co-efficient was determined. The degree of agreement was considered acceptable (Kirkwood and Stene, 2010) as the kappa scores were 0.85 and 0.90 for intra- and inter-examiner reliability, respectively.

Oral Examination and Diagnosis: Oral examination of each participant was done on the dental chair using a sterile mouth mirror and dental probe. The examiners assessed the oral hygiene status using the simplified oral hygiene index (OHI-S) by Greene and Vermillion (1964). The index teeth assessed for primary dentition were 51 55 65 71 75 85, while those assessed for permanent dentition were 11 16 26 31 36 46. Lingual surfaces of the lower molars and buccal surfaces of the remaining index teeth were used for scoring for both permanent and primary dentition. The OHI-S was categorized as good, fair, or poor. Dental caries experience was determined using the WHO criteria where the number of decay, missing and or filled due to caries (dmft/DMFT) were recorded (WHO, 1997). Traumatic dental injuries were also recorded according to WHO (1995) classification of trauma. Other oral/dental anomalies observed were also recorded. All oral findings for the child and the mother pair were recorded in their individual oral health assessment form.

Data analysis: The study participants were grouped into three, namely, the early school (1 to 5 years), the middle school (6 to 10 years) and the high school (11 to 15 years) while the socioeconomic status of each child was re-classified into three groups; high which comprised of classes I and II, middle which comprised of class III and low which comprised of Classes IV and V for ease of analysis. Data were analysed using IBM SPSS for Windows version 21 (Armonk, NY: IBM Corp.). Chi-square test was used to test the associations between oral hygiene and dental caries statuses, sociodemographic characteristics, and oral health practices. The similarity between the oral health practices of mothers and child were assessed by determining the level of agreement between practices of mothers and their children. We estimated and interpreted Kappa statistic as suggested by Cohen in McHugh (2012) as follows: "values $\leq$ 0 indicated no agreement and 0.01–0.20 indicated none to slight agreement, 0.21–0.40 indicated fair agreement, 0.41– 0.60 indicated moderate agreement, 0.61–0.80 indicated substantial agreement, and 0.81–1.00 indicated almost perfect agreement". The level of significance was set at $p \leq 0.05$.

RESULTS

Characteristics of study participants

Study participants comprised 137 male and 151 female children and their mothers. The mother's age ranged from 26 to 65 years with a mean age of 40.9 ±5.5 years while the children's age ranged from 1 to 15 years with a mean of 9.03 ± 3.3 years. The socio-demographic characteristics of participants were as shown in Table 1. Slightly over half (52.8%) of the children were age 6 to 10 years. Majority (86.8%) of the mothers had tertiary education while most fathers (75.7%) were professionals by occupation. Most of the participants (72.9%) belong to high socio-economic class.

Oral hygiene and dental caries statuses of participants

The prevalence of poor oral hygiene status in mothers and children was 16.3% (n = 47) and 9.4% (n = 27) respectively. Oral hygiene status was fair in 66.3% (n = 191) and 59.7% (n = 172) of mothers and children respectively and good in 17.4% (n = 50) and 30.9% (n = 89). On the other hand, the prevalence of dental caries was 34.0% (n = 98) among mothers and 39.6% (n = 114) among children.

Table 1:
Socio-demographic characteristics of study participants

Characteristics	All participants	
	N	%
Child's age group(years)		
1-5	41	14.2
6-10	152	52.8
11-15	95	33.0
Mother' s age group (years).		
26-35	48	16.7
36-45	174	60.4
46-55	60	20.8
56-65	6	2.1
Mother's level of education.		
Tertiary	250	86.8
Secondary	24	8.3
Primary	9	3.1
None	5	1.8
Father's occupation		
Professionals	218	75.7
Semiskilled	36	12.5
Unskilled	23	8.0
Dependent	11	3.8
SES		
High	210	72.9
Middle	71	24.7
Low	7	2.4

Thirty-two (64.0%) out of the 50 mothers who had good oral hygiene status had children who had good oral hygiene (Figure 1). Also, approximately two-thirds of children (66.0%) whose mothers had fair oral hygiene and 63.8% whose mothers had poor oral hygiene had fair oral hygiene. The Kappa statistics indicated that the agreement between the oral hygiene status of mothers and children was fair (Kappa = 0.215). Comparison of dental caries statuses of mothers and their children is as shown in Figure 2. Dental caries was present in 54.1% (n = 53) of children of 98 mothers who had dental caries. However, there was no significant association between presence of dental caries in mothers and their children (p = 0.114). The Kappa statistics indicated that there is no agreement between the caries occurrence in mothers and children (Kappa = 0.092).

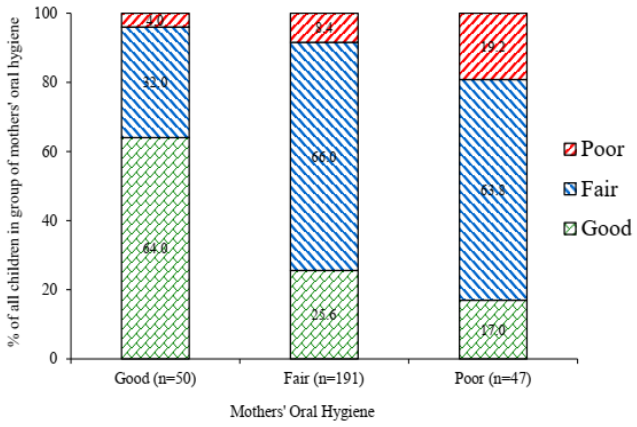

Figure 1: Oral hygiene status of Mothers and their Children

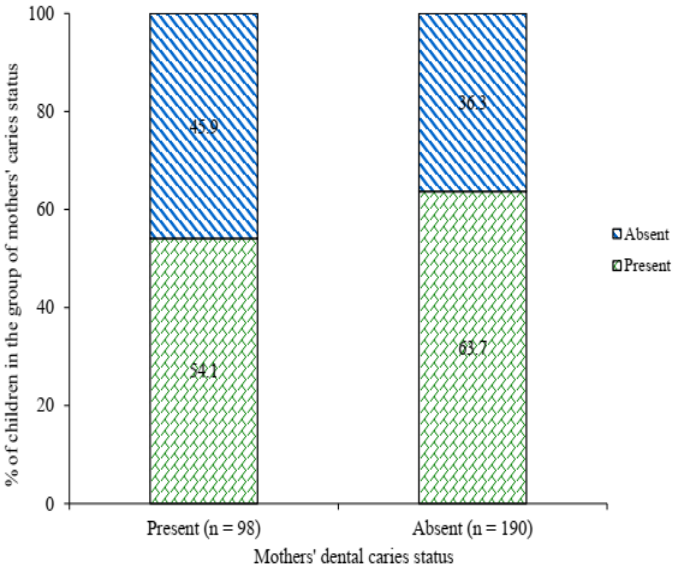

Figure 2:
Dental caries status of Mothers and their Children

Oral hygiene and dental caries statuses by socio-demographic characteristics of participants

The description of status of oral hygiene of mothers and their children were presented according to gender, age groups, maternal education, and socio-economic status in Table 2. Many of the children across the age-groups, gender and socioeconomic status had a fair oral hygiene status and similar result was observed in their mothers (Table 2). However, there was no significant association between oral hygiene status and child's gender, age, maternal education, father's occupation or family socio-economic status.

Similarly, the dental caries status of participants by child's gender and age, maternal education, father occupation or family socio-economic status were as shown in Table 3. There were no significant differences in the distribution of participants by dental caries status and many of the characteristics including child's age, gender, mothers' age, and fathers' occupation. However, the distribution of the children by their dental caries status differed significantly among the subcategories of mothers' level of education (p = 0.031). Stratified analysis showed that mothers with primary or no formal education had higher odds of having children with dental caries than those with tertiary education [OR = 4.22 (95% CI: 1.29, 13.84), p = 0.021]. Conversely, the odds of mothers with primary or no formal education having children with dental caries was not significantly different from those with secondary education [(OR = 2.95 (95% CI: 0.72, 12.11), p = 0.181]. Also, the odds of finding dental caries in children of mothers who had secondary education was not significantly difference from those of the mothers with tertiary education [(OR = 1.33; 95% CI = 0.58, 3.04), p = 0.651].

Relationship between oral health practises, oral hygiene status and dental caries

The distributions of mothers and their children according to the various oral health practices and the probability (p – value) of its associations with oral hygiene and dental caries were as shown in Table 4 and Table 5, respectively. There were no significant associations between any of the oral health

Table 2:
Oral hygiene status of participants by socio-demographic characteristics

Characteristics	Child oral hygiene							Mother's oral hygiene						
	Poor		Fair		Good		p	Poor		Fair		Good		p
	N	%	n	%	n	%		N	%	n	%	n	%	
Child's Gender														
Male	13	9.5	80	58.4	44	32.1	0.902	21	15.3	84	61.3	32	23.4	0.384
Female	14	9.3	92	60.9	45	29.8		26	17.2	107	70.9	18	11.9	
Child's Age														
1-5	4	9.8	27	65.9	10	24.4	0.913	9	22.0	26	63.4	6	14.6	
6-10	14	9.2	89	58.6	49	32.2		22	14.5	100	65.8	30	19.7	0.681
11-15	9	9.5	56	58.9	30	31.6		16	16.8	65	68.4	14	14.7	
Mother' s age (years).														
26-35	5	10.4	26	54.2	17	35.4		7	14.6	32	66.7	9	18.8	
36-45	17	9.8	106	60.9	51	29.3	0.900	27	15.5	112	64.4	35	20.1	0.390
46-55	4	6.7	36	60.0	20	33.3		13	21.7	42	70.0	5	8.3	
56-65	1	16.7	4	66.7	1	30.9		-	-	5	83.3	1	16.7	
Mother's level of education.														
Tertiary	25	10.0	147	58.8	78	31.2	0.772	42	16.8	162	64.8	46	18.4	0.666
Secondary	1	4.2	17	70.8	6	25.0		3	12.5	19	79.2	2	8.3	
Primary and None	1	7.1	8	57.1	5	35.7		2	14.3	10	71.4	2	14.3	
Father's occupation														
Professionals	20	10.5	114	60.0	56	29.5		26	13.7	131	68.9	33	17.4	
Semiskilled	2	3.8	30	56.6	21	39.6	0.526	12	22.6	32	60.4	9	17.0	0.441
Unskilled	3	9.1	20	60.6	10	30.3		7	21.2	22	66.7	4	33.3	
Dependent	2	16.7	8	66.7	2	16.7		2	16.7	6	50.0	4	33.3	
SES														
High	19	9.0	122	58.1	69	32.9	0.549	30	14.3	144	68.6	36	17.1	
Middle	8	11.3	46	64.8	17	23.9		15	21.1	43	60.6	13	18.3	0.580
Low	-	-	4	57.1	3	42.9		2	28.6	4	57.1	1	14.3	

Table 3:
Dental Caries status of the participants by socio-demographic characteristics.

Characteristics	Child's caries status					Mother's caries status				
	Present		Absent		p	Present		Absent		P
	n	%	n	%		n	%	n	%	
Gender										
Male	53	38.7	84	61.3	0.430	43	31.4	94	68.6	0.219
Female	61	40.4	90	59.6		55	36.4	96	63.6	
Child's Age										
1-5	15	36.6	26	63.4		14	34.1	27	65.9	
6-10	60	39.5	92	60.5	0.887	45	29.6	107	70.4	0.182
11-15	39	41.1	56	58.9		39	41.1	56	58.9	
Mother' s age (years).										
26-35	19	39.6	29	60.4		17	35.4	31	64.6	
36-45	71	40.8	103	59.2	0.690	60	34.5	114	65.5	0.760
46-55	23	38.3	37	61.7		18	30.0	42	70.0	
56-65	1	16.7	5	83.3		3	50.0	3	50.0	
Mother's level of education.										
Tertiary	93	37.2	157	62.8	0.031	86	34.4	164	65.6	0.902
Secondary	11	45.8	13	54.2		8	33.3	16	66.7	
Primary and none	10	71.4	4	28.6		4	28.6	10	71.4	
Father's occupation										
Professionals	71	37.4	119	62.6	0.567	68	35.8	122	64.2	0.634
Semiskilled	21	39.6	32	60.4		14	26.4	39	73.6	
Unskilled	16	48.5	17	51.5		12	36.4	21	63.6	
Dependent	6	50.0	6	50.0		4	33.3	8	66.7	
SES										
High	88	41.9	122	58.1		76	36.2	134	63.8	
Middle	26	36.6	45	63.4	0.070	22	31.0	49	69.0	0.144
Low	-	-	7	100.0		-	-	7	100.0	

Table 4:
Associations between oral health practices and oral hygiene status of mothers and their children.

Oral health practices	Mother's oral hygiene status					Child's oral hygiene				
	Good		Poor/fair		p	Good		Poor/fair		P
	N	%	n	%		N	%	n	%	
Frequency of tooth brushing										
Twice daily	4	22.4	14	77.8	0.179	21	41.2	30	58.8	0.215
Once daily	38	19.6	156	80.4		65	28.6	162	71.4	
Less than once daily	8	10.5	68	89.5		3	30.0	7	70.0	
Use of fluoride Containing toothpaste.										
Always	50	18.5	221	81.5	0.051	81	31.2	179	68.8	0.779
Occasionally	0	0.0	17	100.0		8	28.6	20	71.4	
Frequency of sugar containing snacks.										
At least once daily	17	18.7	74	81.3	0.688	62	31.0	138	69.0	0.957
Occasionally	33	16.8	164	83.2		27	30.7	61	69.3	
Last dental visit										
Within 6 months	5	15,6	27	84.4	0.783	16	39.0	25	61.0	0.224
More than 6 months	45	17.6	211	82.4		73	29.6	174	70.4	

Table 5:
Associations between oral health practices and Dental caries status among mothers and their children.

Oral health practices	**Mother's caries status**					**Child's caries status**				
	Present		Absent		p	Present		Absent		P
	n	%	n	%		n	%	n	%	
Frequency of tooth brushing										
Twice daily	10	55.6	8	44.4	0.170	20	39.2	31	60.8	0.134
Once daily	135	69.6	59	30.4		87	38.3	140	61.7	
Less than once daily	45	59.2	31	40.8		7	70.0	3	30.0	
Use of fluoride containing toothpastes										
Always	179	66.1	92	33.9	0.910	103	39.6	157	60.4	0.973
Occasionally	11	64.7	6	35.3		11	39.3	17	60.7	
Frequency of sugar containing snacks										
At least once daily	54	59.3	37	40.7	0.106	80	40.0	120	60.0	0.827
Occasionally	136	69.0	61	21.0		34	38.6	54	61.4	
Last dental clinic visit										
Within 6 months	20	62.5	12	37,5	0.660	24	58.5	17	41.5	**0.007**
None/More than 6 months	170	66.4	86	33.6		90	36.4	157	63.6	

Table 6:
Comparison of oral health practices of mother-child pairs

Oral health practices	Mothers		Children		Level of Agreement	
	n	%	n	%	kappa	P
Frequency of tooth brushing						
Twice daily	76	26.4	51	17.7	0.339	<0.001
Once daily	194	67.4	227	78.8		
Less than once daily	91	31.6	10	3.5		
Use of fluoride containing toothpaste						
Always	271	94.1	260	90.3	0.496	<0.001
Occasionally	17	5.9	28	9.7		
Frequency of sugar containing snacks						
At least once daily	91	31.6	200	69.4	0.156	<0.001
Occasionally	197	68.4	88	30.6		
Last dental visit						
Within 6 months	32	11.1	41	14.2	0.170	<0.001
More than 6 months	256	88.9	247	85.8		

practices and oral hygiene status (Table 4). Similarly, Table 5 shows that there were no significant associations between any of the oral health practices and dental caries except the report of last dental clinic visit among the sampled population of children. Children who had visited dental clinics within 6 months before the study (58.5%) had significantly higher occurrence of dental caries than their counterparts who had not visited dental clinics (41.5%); p = 0.007.

Furthermore, the pair-wise comparison of oral health practices of mother and child and the measure of agreement of the reported practices between mothers and children are as shown in Table 6. The distribution of the pair of mothers and children by the various oral health practices differed significantly ($p<0.001$ for each as in Table 6). The level of agreement varied from being none (kappa = 0.156 and 0.170) to fair (kappa = 0.339) and moderate (kappa = 0.496).

DISCUSSION

This study revealed that the oral hygiene of mothers had no remarkable influence on the oral health status of their children in the studied population. Also, the presence of dental caries in mothers was not related to its occurrence in their children. The distribution of children by their dental caries status, on the other hand, varied considerably among the subcategories of mothers' educational levels. Mothers with primary or no formal education had a higher chance of having children with dental caries than those with tertiary education, but the odds of having children with dental caries for mothers with primary or no formal education were not different from those with secondary education.

The prevalence of poor oral hygiene of 9.4% among children in this study is relatively low compared with 16.3% among their mothers. Studies which classify oral hygiene practices as either good or poor are scarce in accessible literature. However, the observed prevalence of poor oral hygiene was considerably lower than 72.2% reported among children less than 5 years receiving routine immunization at primary health facilities in Lagos (Adeniyi, 2009). The participants in the present study were strikingly different from those who participated in the study conducted in Lagos (Adeniyi, 2009). While the present study enrolled children who presented for consultation at the dental clinic, the sample population in the Lagos study was relatively healthy and selected from schools.

One key finding from this study is the disparity in oral hygiene status and the presence of dental caries. Contrary to expectations, less than two-thirds of the children of mothers with good oral hygiene also had good oral hygiene. Similarly, only about half of children of mothers with dental caries were observed to have caries. The observed disparity in the oral hygiene and caries statuses of the mothers and children in this study suggests that maternal oral health has no impact on their children's oral health. Although previous research has shown that mothers' toothbrushing habits are important predictors of their children's toothbrushing habits (Kino et al., 2015),our findings show that mothers' brushing habits and fluoride toothpaste use have no influence on their children's oral hygiene. This finding is unsurprising, given that previous research has suggested that maternal oral hygiene practises may have little impact on their children's oral hygiene (Martin et al., 2008 and Martin et al., 2011). These two studies (Martin et al., 2008 and Martin et al., 2011), like ours, support the idea that relying on mothers' reports on their children's tooth-brushing habits is a common practise, but not reliable.

Furthermore, in the present study we observed that children who had visited dental clinics within 6 months before the study had significantly higher occurrence of dental caries than their counterparts who had not visited dental clinics. This finding is not surprising given that the study population was made up of children who presented in the dental clinics for a variety of reasons. The above finding, however, is consistent with a previous report that found that dental service utilisation was generally low among Nigerians and was frequently prompted by severe symptoms as well as noticeable obvious oral diseases (Uguru et al., 2021). Our finding should therefore be understood within this context, indicating the need to promote routine dental check-up visit and prompt treatment seeking habit for all dental problems. Dental caries is preventable and can be completely reversed through good dietary and oral hygiene practises, community interventions such as water fluoridation, among other things (Hale 2003; Rozier et al., 2003). In addition to disease risk assessment, early detection and treatment services, preventive care such as fluoride therapy, and anticipatory guidance are services that can be provided to children during routine dental visits (American Academy of Pediatric Dentistry, 2013).

Put together, a mother's oral health and related factors, such as knowledge and behaviour, have a direct impact on their child's oral health in a variety of ways. In this study, a relationship was discovered between mothers' education and their children's oral health status. It can be deduced that education of mothers can improve their knowledge of healthy behaviours as well as their ability to supervise their children's hygiene practises. Previous studies have found that parents with a higher level of education have more positive attitudes and stronger intentions to control their children's health behaviours than parents with a lower level of education (Hooley et al., 2012). In a study by Adeniyi et al., a significant relationship was also found between mothers' educational level and their children's oral hygiene status (Adeniyi et al., 2009) as demonstrated in the present study.

One of the present study's strengths is that an objective measure was used to assess mothers' and children's oral health status. This lends credibility to the study's findings. To our knowledge, no study, found in public domains, have examined mothers and their children concurrently to determine oral health statuses in Nigerian dental clinics. These scores were used to determine whether or not the mother's oral health and oral health-related behaviour had any effect on the oral health of their children. While the findings of this study have provided new knowledge on the relationship between child and maternal oral health status in a Nigerian urban population, their generalizability is limited due to the study's cross-sectional design. As is the case with any cross-sectional design, respondents may struggle to recall certain pieces of information, which may pose a problem and introduce unquantifiable bias. Nevertheless, self-reported oral health practises has been demonstrated as a representative health indicator used in a large number of international studies (Hooley et al., 2012). It is a relatively straightforward indicator of oral health measurement and is effective at identifying oral health disparities. Due to the inherent characteristics of the sampling method used; because it was convenience sampled, it may have introduced sampling bias and does not allow generalisation of the study findings to other groups of people. Moreover, numerous factors influence the prevalence of dental caries among dental patients, but this study focused exclusively on individual and family related factors.

Conclusion

Dental caries risk was reduced and oral hygiene was better in children whose mothers are educated. Raising parents' oral health awareness and attitudes may not influence their

children's oral health behaviours and status. Dentists should educate children about good oral health practises at every opportunity. It is also necessary to lay emphasis on the overall health benefits of regular tooth brushing, the anti-caries action of fluoride containing toothpastes and the promotion of frequent dental check-ups. Efforts to improve maternal literacy may benefit children's oral health knowledge and dental service utilization.

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