IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 25, Issue 2 Ser. 4 (February. 2026), PP 54-66
www.iosrjournals.org

Basic Oral Health Knowledge And Hygiene Practices Of Public Elementary And Seondary School Children In Amassoma Community

Wankasi, Helen Idubamo (PhD)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Dallas, Faustina (BNSC)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Sambo, Baralate (PhD-In View)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Amakoromo, Tari (PhD-In View)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Adeyanju, Babafemi (PhD-In View)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Akpojisheri, Frank (MSc-In View)
Faculty Of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Abstract
Children in public elementary/secondary schools' basic oral health knowledge and cleanliness habits are seen as a major concern, considering the fact that poor knowledge and hygiene practices are associated with a number of health issues. The aim of this study was to find out public elementary/secondary school children`s basic oral health knowledge and hygiene practices. The study employed a cross-sectional survey design with as simple random sample approach to choose a total of 250 respondents from two schools; one elementary and one secondary schools, utilizing a-four section self-structured questionnaire: Section A sought demographic information; Sections B and C assessed oral health knowledge and oral hygiene practices among public school pupils; and Section D examined barriers to oral care among public school students. Using the statistical package for social science version 20.0 tool, the collected data were organised, analysed, and presented as tables and percentages. Results from this study showed that students at public elementary secondary schools in the study area had a high level of oral health knowledge (103 / 57.2%). In the meantime, students attending public elementary/elementary schools had a low (45 / 25%) excellent attitude towards dental health. Poverty (105 / 58.4%), a lack of awareness of oral health issues (133 / 74%), and the attitudes of oral health professionals (110 / 61.2%) all served as barriers to receiving adequate dental care. Elementary/secondary school children were urged to regularly change teeth brushes every two months, educate parents and kids about oral health, and include oral education in the curriculum of schools.

Keyword: *Children/pupils, Hygiene, Knowledge, Oral Health and Public elementary/ secondary school- Word Count: 253*

Date of Submission: 15-02-2026 Date of Acceptance: 25-02-2026

I. Background Of The Study

The archaic English term 'health' denotes a state of being sound (Nutbeam & Muscat 2021). Whereas, oral health refers to the comprehensive condition of the oral cavity, often known as the mouth, and the four types of teeth (diphyodont), indicating that individuals develop two sets of teeth throughout their lifespan. The pertinent teeth in this context are both temporary/ permanent set of teeth in children's oral cavities. The oral cavity comprises the gums (gingiva), connective tissues, ligaments, and bone; the hard and soft palates; the soft mucosal lining of the mouth and throat; the tongue; the lips; the salivary glands; the masticatory muscles; and the upper and lower jaws, which articulate with the skull via the temporomandibular joints. Optimal oral health signifies the absence of pain or any oral disorders, including growths, soft tissue lesions, and periodontal disease (National Institute of Dental and Craniofacial Research, 2000). The oral cavity requires continuous upkeep to ensure good health. However, it is often neglected by children prior to attending school and at bedtime. This has become a worldwide concern, as the mouth cavity is essential to various critical functions that influence children's physical, intellectual, and social development (Johnson, 2014; Ephraim-Emmanuel *et al*, 2016). This requires ongoing study to assess children's understanding and behaviours about oral hygiene, facilitating informed recommendations in future studies and policy decisions.

Knowledge denotes the information, understanding, and proficiency obtained via education or experience. In this study, knowledge refers to the information, comprehension, and abilities obtained from education or experience linked to oral health care by elementary/secondary school pupils/children. Basic oral hygiene knowledge guarantees awareness of oral hygiene and the procedures for maintaining a healthy oral cavity, free from disease and other issues by regular teeth brushing and the application of proper hygiene practices. No matter the perspective and method, the purpose is to avert oral disease and halitosis. It is therefore necessary to establish adequate dental hygiene on a regular basis regardless of one`s age.

Not only that, mouth hygiene is advantageous, judging that food particles/chocolates often find their way beyond the oral cavity to other organs of the body, and damages the child's general health/wellbeing. The requirement to maintain appropriate dental hygiene and practice in order to have sound overall health can never be overemphasized (Abruquah & Dsane 2014; Baral *et al,* 2009).

In addition, adequate knowledge and practice of good oral hygiene arm school children with facts regarding dos and dons in the event of oral health diseases; which includes visiting a dentist rather than to patronize quacks and application of hazardous substances (Obuna *et al,* 2012; Ephraim-Emmanuel, 2016). Moreover, whether having oral issues or not, good oral health knowledge and oral hygiene practices expedite regular tooth brushing with a toothpaste, ensure routine visits to the dental clinic, the use of dental floss etc. all in a bid to prevent oral diseases rather than curative measures to get rid of the oral disease (Folayan *et al,* 2013; Guddad *et al,* 2015).

Often time, school children having oral health problem are unaware until the manifestation of signs and symptoms or damage to structures in the mouth occur, is when the parents of children seek for medical aid (Folayan *et al,* 2014; Kompalli *et al,* 2013).

Statistically, oral diseases afflict about 3.5 billion individuals, that includes elementary school children. Untreated dental caries (tooth decay) in the permanent teeth is the most frequent health issue of school children according to the global burden of Disease 2019.

The disease load may be ascribed to parents' illiteracy resulting in child`s socio-economic status, since it has been proven that dental clinic attendance improves with varying degrees of education and high socio-economic standing of school child`s parents (Olusile *et al,* 2014). However, contrarily, other writers opined that a high socio-economic status has also been associated to increasing levels of occurrence of oral problems early on school children (Kasusu, 2012). Again, other reasons of oral problems are: pre-emptive feeling of pain from dental procedures, dental phobia, lack of time to visit the dental clinic, non-accessibility/unavailability of dental health care facilities, financial constraints amongst others have been given as reasons for not visiting the dental clinic either routinely or when an oral health problem has occurred (Ajayi *et al,* 2012; Arun *et al,* 2010; Omili *et al,* 2013).

To avert some of these, the national oral health policy was revised in 2012 with the view to promote optimal oral and general health for all Nigerians, to reverse the prevalence and incidence of oral diseases and to meet the global targets on the elimination and eradication of oral diseases and significantly ensure the maintenance of complete set of dentitions through life and ultimately promote general health for all future generations of Nigerians" (Folayan *et al,* 2014). The 36 states and FCT of the federation were enjoined to provide oral health care facilities/services at all levels to be affordable by all and sundry (Bamise *et al,* 2009) to promote good general health and its attendant benefits not just to the individual school child, but to the productivity of the entire populace (Rustvold, 2012; Adebola *et al,* 2013; Bhardwaj, 2012). Other techniques of prevention through public health interventions by targeting common risk factors to lessen the burden of oral disorders and other non-communicable diseases are: Intentional promotion of optimal nutrition: utilising a well-balanced diet low in free sugars and high

in fruit/vegetables, and choosing water as the main drink. Again, intentional halt of tobacco, areca nuts and other illicit substance intake can be of benefit.

Not only that, intentional encouragement of employment of protective equipment during sports, travelling on bicycles/motorbikes to prevent facial injuries alongside proper exposure to fluoride are crucial components in the prevention of dental caries. Furthermore, twice-daily teeth brush with fluoride-containing toothpaste (1000 to 1500 ppm) is known to be a crucial promoter of healthy teeth and general oral care. Iba and Adamu (2021) re-admitted that tooth brushing alone cleaning alone is insufficient in eviscerating the proximal shells of teeth. In seemingly support of this, Balli, Shumway and Sharan (2023) noted that oral fever can be avoided by brushing and flossing once or twice a day. The use of dental lint or video, a toothpick, a small scrape that fits between the teeth, an oral irrigation or other special device is necessary in order to clean between the teeth, in Nigeria and other African countries, children brush their teeth generally with different types of toothpaste, masticating stick is traditionally used for eviscerating and strengthening the teeth and the use of tooth paste containing fluoride in southern Nigeria is also wide-ranging (Oguntola, 2019). About 80-90 percent Nigerians utilise masticating sticks, primarily because these are easily available, affordable and operative (Ahmed, Gamal El-Din, & Kabeel, (2022). The choice of masticating stick is for cleansing action on the teeth, the official value and chosen taste or flavour (Oguntola. 2019).

Children in this study, are those within 6-11 years age bracket or within the developmental phase of infancy and puberty that attend public elementary school (Singh *et al* 2019). At this age, these children take a lot of sweet, chocolates and often struggle to care for their teeth for at least twice daily. Consequently, there is need to use these youngsters as the target audience to ascertain their knowledge and oral health behaviours.

Public elementary schools are schools that are funded and administered by the government Presently, in Nigeria, public schools, which are government supported (taxpayers `money) schools are made up of children from middle to low-income families. Meaning, these are pupils from homes whose parents cannot afford basic oral care and health care resources as well as such parents do not have the potential to assist achievement (Lott 2001). Proven by Almajed *et al,* (2024) that lower socioeconomic position correlates with greater prevalence of dental caries and poorer oral health-related quality of life in children. Almajed *et al,* (2024) underline the significance for policy initiatives that analyse the influence of socioeconomic determinants throughout various early stages and evaluate the success of educational solutions. The public elementary school children in Amassoma are children in typical sub-urban area that have a number of children from less economically viable-homes. Therefore, using them as target audience would enable researchers elicit required information to achieve the broad objective of the study.

Statement of the Problem

Globally, an estimated 2 billion people suffer from caries in permanent teeth, with 514 million elementary/secondary school children affected by caries in their primary teeth (WHO, 2023). This issue has been increasing for over a decade, with complications arising from untreated tooth cavities. In Nigeria, data on oral health is scarce, but available figures indicate that dental caries affects 6–23% of Nigerian children, with 90% of cases going untreated. Gum disorders affect 15–58% of children aged 15 and younger.

This high prevalence is attributed to factors such as a lack of awareness about dental care. Research has shown that better understanding of oral health leads to improved oral hygiene practices, and without this knowledge, dental problems persist among schoolchildren (Smyth *et al.,* 2007). The primary school curriculum lacks sufficient dental health education, leaving children unaware of proper oral care practices, which contributes to issues such as cavities, tooth erosion, and gum disease.

Despite these problems, both elementary/secondary school children often neglect to brush their teeth, consume excessive sweets, and eat sticky foods, leading to pain, discomfort, nutritional issues (e.g., vitamin C deficiency), and chronic infections. These can result in sleeplessness, tooth extractions, and, in severe cases, poor academic performance, absenteeism, and even school dropout. Other consequences include perpetual digestive diseases, low self-esteem, speech problems, facial swelling, persistent halitosis, and dementia.

If these issues persist, they could contribute to higher rates of violence, street children, and increased economic and healthcare burdens on Nigeria. While there are many studies on dental health, none have focused specifically on the Amassoma setting, highlighting the need for this research.

Purpose of the Study

The purpose of the study is to ascertain the oral health knowledge and oral hygiene practices of public-elementary/secondary school children in Amassoma community, southern Ijaw local government area Bayelsa state.

Objective of the Study

This objective of this article is to ascertain the oral health knowledge, oral hygiene practice and identify factors that affect proper oral hygiene practices among public elementary/secondary school children.

Significantly, this article aims to evaluate the oral health knowledge, hygiene practices, and influencing factors affecting public secondary school pupils, and is significant for the following reasons: The outcome of this study will generate data that will inform public elementary schools in the area under examination. This study would enhance children's oral health care, promote healthy oral hygiene practices, and reduce the incidence of dental illnesses in public secondary schools. Ultimately, this study will aid instructors and parents/guardians in enhancing their efforts to educate their children/wards about dental health care.

The scope and limitation of this article are that; the study was conducted in Amassoma Community in Southern Ijaw Local Government area and the study focused on oral health knowledge and hygiene and the sample might not represent the general population and time constraint to conduct these works and specifically on public-elementary/secondary school children in Amassoma community.

Theoretical Frame Work (Health Belief Model)

Health belief model (HBM) is one of the first theories of health behaviors. It was developed in the 1950s by a group of United States Public Health Service Social Psychologist who wanted to explain why so legionnaires were partaking in programs to forestall and detect bugs. HBM is a good model for addressing problems that raise health concern, suchlike as (diabetes, hypertension).

Health belief model proposes that a person's health related behaviors depend on the person's perception of four critical areas:

i. The severity of the potential illness.
ii. The person's susceptibility to that illness.
iii. The benefits of taking a preventive action.
iv. The barriers to taking preventive action.

HBM: is a popular model applied in nursing, especially in issues centering on patient compliance and precautionary health care practice, the model assumptions that health seeking actions is affected by person's perception of danger posed by a health problem and values associated with action aimed at reducing the treat. HBM addresses the relationship between person's belief and behavior. It provides a way to understands and predicts how accounts will acquit in relation to health and how they will act with health care antidotes.

The major concepts and definition of health belief model include: Perceived susceptibility: refer to a child perception that a health problem is personally relevant or that a diagnosis of illness is accurate. Perceive severity: even when one recognizes personal susceptibility, action will not occur unless the individual perceives the severity to be high enough to have serious organic or social complication. Perceive benefits: refer to the child belief that a given treatment will cure the illness or help to prevent it. Perceive cost: refer to the complexity, duration and accessibility of the treatment. Motivation: this includes the desire to comply with treatment. Modifying factors: include personality, variable, child's satisfaction and social demographic factor.

Application of the Model

The model involves the individuals (private school children) knowledge and attitude of oral health which include, related behavior carried out to prevent oral disease and promote oral health, these behaviors include regular mouth wash, use of fluorinated toothpaste, and regular checkup, the individuals need to recognize the various factors needed to prevent oral disease and promote oral health.

Empirical review of oral health **knowledge** among public school pupils.

A study conducted by Al-Darwish, Mohammed and Al-Thomairy (2015) on oral health among school students indicated that, a significant majority 1,920 (90.9%) of the children were aware that excellent dental health is crucial for good general health. It was demonstrated by Al-Darwish *et al*, that majority of the youngsters 1,768 (83.7%) were aware of the importance of the teeth in chewing, talking and appearance.

Also, study conducted by Azodo and Amenaghawo, (2013) a on oral health practice among rural dwellers in Nigeria, revealed that a majority of the children that were studied 2,029 (96%), think it is important to keep teeth clean and 1,754 (83%) knew that clean teeth prevent bad breath, prevent tooth decay, and keep teeth healthy and beautiful, about 1,433 (67.8%) of children identified that tooth brushing, dental floss, and mouth wash are all very important. In similar vein, Azodo and Amenaghawo, (2013) b, in his study on "dental care in Nigeria" found that roughly 942 (44.6%) of the children in his study recognized dental floss as a cleaning equipment for between the teeth, which suggests that the important of cleaning between teeth was evidently well understood. 845(40%) of the youngsters thought that cleaning between teeth by using a tooth brush is adequate while 149(7.1%) don't know the appropriate manner of cleaning in between their teeth. A big proportion, 687 (32.5%) of school children erroneously thought that one needs attend the dentist just in case of pain in one tooth. Majority 2,005 (94.9%) of the children recognised that sweets (chocolate) might cause tooth decay while a considerable number of youngsters were not aware of the carcinogenic risk of soft drinks, 824(39%), and sweetened milk 2,067

(97.8%). More than half, 1,193 (56.5%) of the youngsters acknowledge that excellent dental hygiene, eating less sweets, using fluoride and regular visiting the dentist might prevent oral disease and roughly 1,339 (63.4%) knew that blood on the tooth brush could be an indication of gum disease.

Another study conducted by Bertelsen, *et al* (2022) on dental service in Nigeria revealed that 1,482 (70.1%) of the children recognized that healthy gums hardly bleed and only 1,341 (63.5%) were able to correctly identified that symptoms of oral disease include swelling, redness of gums, bad smell from mouth and bleeding from gums. Approximately 1.151 (54.5%) of the children recognised that the best approach to maintain maximum oral health was to clean their teeth once or twice daily and 44 (21%) of the school students did not know. Blayney (2020) indicated that most of the youngsters (92.18) in public school acknowledge the important of preventing oral disease and supporting oral health. This was promising in view of the fact that oral disease can damage well-being and result in substantial pain which may cause life threatening infections and diminish overall quality of life.

Oral Hygiene **practice** among Public secondary School Children.

Again, Jibo and Mubarak (2018) evaluated the oral hygiene knowledge habits and behaviours among primary academe children in Kano, Nigeria. The mean age of the intelligence was 11.72 (epochs) for the public and11.51 (epochs) for the private academe. Better knowledge of oral hygiene was noticed among pupils of private academe pupils (63.5) compared to those in public academe (36.5) and better habits in private academe (81.5). Significant disparities were noticed among pupils of the study academes in how's of brushing, commonness, lady like supervision as well as visit to dentists ($p<0.05$).

Furthermore, Hamoonga, Nyerembe and Siziya (2015) observed that a totality of 412 pupils with masculine to womanly ration of1.11.0 shared in his study on knowledge, stances and practices on dental hygiene among children. Majority (91.3) had satisfactory knowledge on tooth caries while 66.7 had satisfactory knowledge on periodontal diseases. Ultimate of the players (76.5) know shrine can be averted by brushing and flossing. Further than half of the gamers (59.7) knew causes of gum bleeding and most (76.4) were scared that bleeding gum can be averted by brushing and flossing. Only10.9 were of the opinion that restoration is a superior therapy of tooth pang compared to birth. Majority (84.5) believed that frequent dental appointments are vital, but only10.0 of the actors reported to have visited their dentist regularly within the prior one generation. Only11.4 washed their teeth twice or added in a day and while (0.3) reported to utilise dental down as tooth disembowelling appliance. In addition, Mlenga and Mumghamba (2021) studied on oral hygiene behaviours, knowledge and self-reported dental and gingival problem with rural-urban differences among primary academy pupils. Out of 409 pupils, outside of them had knowledge that dental caries is created by consumption of fruity foodstuffs (91.4), toothache is a symptom of dental caries (77.6), gingivitis is caused by inefficient teeth brushing (92.7), and gingival bleeding is a sign of gingivitis (85.3). Ultimate pupils had toothache (30.8); legion of them had parents with secondary education and above (35.0) compared to those with elementary education (23.5) 24.4 skilled gingival bleeding with escalating odds from public (30.1) than rustic (18.5) seminaries. Plastic toothbrush enthusiasts (95) overwhelmed nibbling stick junkies (24.9). The use of biting stick was much high in country (49) than in governmental (1.9) seminaries. Likewise, tooth brushing before bed was much high in country (33) than in governmental (17.2) pupils. The usage of toothpaste during tooth brushing was much more among governmental (91.9) than among country (64) kids. The commonness of lingo drawing was 70.2, and the differences were notably high among pupils who had parents with secondary and high education in governmental seminaries and among pupils aged 11–12 times in comparison with their counterparts.

Barriers to Oral Care among Public secondary school Children.

A study conducted by Anwar, and Zulkifli, (2020) on oral health status of school children in Nigeria, found that there have been certain hurdles connected with oral care among children most of the respondents were slightly afraid (13.3%). Whereas, according to Umesi, Koleoso and Ayanbadejo (2007) on oral hygiene practice among adolescents in Lagos state Nigeria, revealed that when the school children were asked about their experience "visiting the dentist", most of the respondents replied that there was no enough time for the treatment (30.1%), followed by "there was little pain" (24.7%). The least number among the responses was "I was not feeling comfortable" (5.0%) there was unavailability of services (63%), going to dentist only when in pain (57%), seeking self-care or home cure (54%), poor government policies (50%), budgetary restrictions (40%). These were among the greatest access hurdles.

Data from the literature research showed that, there is an above average awareness and understanding in terms of oral health in among public secondary school children. Also, it is noticed there is an average awareness of preventative and maintenance of oral health among public school children, in addition, it was observed that a big proportion of the children have good understanding of oral hygiene. Nevertheless, dental anxiety, lack of enough time, usage of home remedies for oral treatment and poor government policies are the biggest access barriers to oral health care among children.

Research Design

The study used a cross-sectional survey design to examine the oral health knowledge and hygiene, because, the was data collected at a single point in time in public elementary/secondary schools.

Research Setting

The study was conducted in the public secondary schools in Amassoma Community in Southern Ijaw Local Government Area, Bayelsa State. It is an Ijaw speaking community located in the Niger Delta Region of Nigeria. It is found in the Wilberforce Island along the outer river through the Atlantic Ocean and a 25 kilometers (km) distance from Yenagoa the capital city of Bayelsa State by road, which is about 40 minutes' drive from Yenagoa. The main occupation of the inhabitants are fishers, peasant farmers and traders. Again, there are public elementary/secondary schools. Aside the community indigenes and other different ethnic groups.

Target Population

The target population for this study were 670 public school children in selected public elementary/secondary school in Amassoma Community, Southern Ijaw Local Government Area, Bayelsa State.

Sample Size

A sample is a subset of individuals from a larger population. In the sample size calculation, Taro Yamane formula was used. The Taro Yamane method for sample size calculation was formulated by the statistician Taro Yamane in 1967 to determine the sample size of a given population. To determine the sample size of the population, the researchers used 250 students from two selected elementary/secondary schools.

$$n = \frac{N}{1+N(e^2)}$$

Where;
n = Sample Size
N = Target Population
1 = Constant
e = Margin of errors (0.05)

$$\frac{670}{1+670(0.05^2)}$$

$$= \frac{670}{1+670(0.0025)}$$

$$= \frac{670}{1+1.675}$$

$$= \frac{670}{2.675}$$

= 250.467
n = 250 students

Sampling Technique

For effectiveness of this study, a simple random sampling procedure of balloting method was used on the selected public elementary/secondary schools in Amassoma community southern Ijaw, local government area of Bayelsa state.

Instrument for Data Collection

The instrument for data collection was a self-structured questionnaire which was developed by the researcher to answer the research questions of the study. The questionnaire consisted of four sections A, B, C and second D. Section A elicit the Socio-demographic data of the respondents, section B elicit data on level of knowledge on oral health, section C elicit data on level of practice of oral hygiene and section D elicit data on factors that serve as barriers to proper oral care.

Validity of the Instrument

Copies of the questionnaire were given to the researcher's supervisor who did both content and face validity. Content validity has to do will containing the objectives with grammatical corrections.

Reliability of Instrument

A preliminary study was carried out with the questionnaire prior to the actual study in Amassoma, Southern Ijaw Local Government Area Bayelsa State.

Method of Data Collection

The researcher was directly involved in the collection of data from respondents using questionnaire specifically design to achieve the objective of the study. The participants were approached in their various elementary/secondary schools and the questionnaire was administered to the selected respondents. An interpretation was done to those who do not understand English language.

Method of Data Analysis

The data collected was organized and analyzed using the Statistical Package for Social Science (SPSS) version 20.0 software and presented in frequency tables and graphs.

Ethnical Consideration

The researcher obtained an official permission from the office of the Dean, Faculty of nursing Sciences, Niger Delta University. In the Community, informed consent was obtained from the Council of Chiefs and Community Group Leaders, which includes Women Leader, Youth Leader, Men Leader Community Development Committee (CDC) and Religious Group Leaders. Procedures and objectives of the study was explained to all the participants and confidentiality was maintained throughout the period of study.

Data Analysis and Presentation

This segment discussed the analysis of data which was retrieved from the questionnaire and presents the findings in frequency tables and percentages.

Table 1: Section A: Socio-demographic data (N=250)

S/N	Variables	Frequency	Percentage (%)
	Name of School:		
	Government Secondary School, Amassoma.	140	56
1	Community Primary School, Amassoma	110	44
	Total	250	100
	Age:	15	6
	12-14	100	40
2	15-17	70	28
	18-20	50	20
	21-23	5	2
	24 and above Total	250	100
	Sex: Male Female	130	52
3	Total	120	48
		250	100
	Religion: Christian Islamic Others	205	75
	Total	45	25
4		0	0
		250	100
	Class: Elementary 5&6	65	26
	SSS II & III	85	34
5	Total	100	40
		250	100
	Parent level of Education:	35	14
6	No Education	50	20
	Primary Education		
7	Secondary Education	100	40
	Tertiary Education Total	65	26
		250	100

Table1. above, showed that (140/56%) of the respondent were children from Government Secondary School Amassoma while (110/44%) of the respondent were from Community Primary School Amassoma.

From the analysis table most of the respondent (100/40%) of the respondents were between the age range of 15-17, (15/6%) of the respondents were between the age range of 12-14, (70/28%) were between the age range of 18-20, (50/20%) were between the age range of 21-23 and (5/2%) of the respondents were between the age range of 24 and above. Most of the respondents (130/52%) were males while (120/48%) of the respondents were females. Table 4.1 showed that (205/75%) of the respondent were Christians, (45/25%) were Muslim while none of the respondent belong to other religion. The table 4.1 above showed that most of the respondents (65/26%) were in SS I class, respondent from SS II were (85/34%) and SS III had total number of (100/40%) respondent. (35/14%) of the respondent's parents had no formal education, (50/20%) of the respondent's parent had attained primary level of education, (100/40%) of the parent were West African Examination Council Certificate holders and (65/26%) respondent's parents had acquired tertiary education.

Section B: Oral Health Knowledge Among Respondents

Table 2.

S/ N	Variable	Frequency	Percentage (%)
7	Have you heard of oral health? Yes No Total	 200 50 250	 80 20 100
8	If yes, do you know what oral health is? Yes No Total	 155 45 200	 62 38 100
9	Which of the following oral disease do you know? Dental Caries Dental plaque Oral Cancer Gingivitis I don't know Total	 65 15 100 40 30 250	 26 6 40 16 12 100
10	Thick any of the following you consider to be the cause of oral disease. Consumption of too much sweet foods Mouth neglect Sharing of spoons I don't know Total	 120 105 20 5 200	 48 42 8 2 100
11	Which of these do you consider to be good oral hygiene practice? Not brushing your month Brushing twice or more times daily Eating before brushing I don't know Total	 28 192 10 20 250	 11.2 76.8 4 8 100
12	Is brushing your teeth with soft tooth brush and tooth paste a good oral health practice? Agreed Disagreed Strongly agreed Strongly disagreed Total	 50 20 130 50 250	 20 8 52 20 100
13	What do you think regular brushing of teeth will result to? Positive oral feeling Negative oral feeling Total	 200 50 250	 80 20 100
14	Do you think if you do not brush your teeth for a long period your teeth will decay? Yes No Total	 195 55 250	 78 22 100
15	Does brushing of teeth regularly prevent mouth odour? Yes No Total	 212 38 250	 84.8 15.2 100
16	Can excessive consumption of sugary foods lead to tooth decay? Agreed	 32	 12.8
17	Disagreed Strongly agreed Strongly disagreed Total	20 140 58 250	8 56 23.2 100

From table 2 above (200/80%) respondents heard about oral health while (50/20%) respondents had never heard about oral health. More so, from table 4.2 above it showed that (155/62%) of the respondents had the idea of what oral health is, while (45/38%) respondents does not have the idea of what oral health is all about. Furthermore, table 4.2 above showed that (65/26%) respondents acknowledged Dental caries as a type of oral disease, (15/6%) acknowledged dental plaque, (100/40%) acknowledged oral cancer, (40/16%) acknowledged Gingivitis as an oral disease and (30/12%) respondents did not know any of the oral diseases that were mentioned above. More so, Table 4.2 above, it showed that (120/48%) respondents considered consumption of too much sugary foods to be the cause of oral disease, most of the respondents (105/42%) considered mouth neglect as the

cause of oral disease, (20/8%) respondents considered sharing of spoon as the cause of oral disease and (5/2%) respondents said they don't know.

Table 2 above indicates that majority of the respondents (192/76.8%) were able to identify brushing twice or more times daily as a good oral hygiene practice, (28/11.2%) respondents considered not brushing before eating as a good oral hygiene practice and some of the respondents, (20/8%) did not know if any of the practice mentioned above is a good Oral health practice or bad oral health practice. Also, it was showed in table 2 that majority of the respondent (50/20%) agreed that using soft tooth brush and tooth paste is oral health practice, (20/8%) respondents disagreed with the fact that brushing tooth with soft tooth brush and paste is a good oral health, (130/52%) respondent strongly agreed that brushing of the teeth with soft tooth brush is a good oral health practice and (50/20%) respondents strongly disagreed with the fact that brushing of teeth with soft tooth and tooth paste is a good oral health practice. Table 2 above also showed that (200/80%) respondents acknowledged that regular brushing of teeth will result to positive oral feeling while (50/20%) respondents did not acknowledge the fact that regular brushing of teeth will result to negative oral feeling.

Table 2 also showed that majority of the respondents (195/78%) admitted that if they did not brush their teeth for a long period of time their teeth will decay, while (55/22%) respondents admitted that their teeth will not decay if they do not brush their teeth for a long time. Table 2 shows that most respondents (212/84.8%) were aware that regular brushing of the teeth prevent mouth odour, and (38/15.2%) respondents were not aware the brushing of the mouth prevent mouth odour.

Furthermore, table 2 also showed that (32/12.8%) respondents agreed that excessive consumption of sugary foods lead to tooth decay (20/8%) disagreed that excessive consumption of sugary foods leads to tooth decay, majority of the respondents (140/56%) strongly agreed that consumption of sugary foods leads to tooth decay, while (58/23.2%) respondents strongly disagreed with the fact that consumption of sugary foods lead to tooth decay.

Section c: Oral Hygiene practice among Respondents

Table 3.

S/N	Variables	Frequency	Percentage (%)
17	When do you brush your teeth? First in the morning After breakfast Any time of the day Total	 200 20 30 250	 80 8 12 100
18	How often do you change brush your teeth? Every 2 months Every 3 months When the tooth brush is weak Total	 18 42 190 250	 7.2 16.8 76 100
19	What do you use to brush your teeth? Tooth brush and tooth paste	 200 10 40	 80 1 19
20	Tooth brush and salt Chewing stick Just hand Total	0 250	0 100
21	How often do you brush your mouth daily? Once Two times Three times Total	 220 25 5 250	 88 10 2 100
22	Do you brush your mouth before going to sleep? Yes No Total	 35 215 250	 14 86 100
23	Have you ever been to the hospital for oral checkup? Yes No Total	 39 211 250	 15.6 84.4 100
24	How many times have you visited the hospital for oral checkup? 1-2 times 3-4 times 5 times Total	 237 13 0 250	 94.8 5.2 0 100

25	How often do you use dental floss Once a day Once a week Spontaneously Total	 0 12 238 250	 0 4.8 95.2 100

Table 3 showed that majority of the respondents (200/80%) brush their teeth first in the morning, (20/8%) respondents brush their teeth after breakfast, and (30/12%) respondents brush their teeth any time of the day.

Table 3 also indicate that (18/7.2%) respondents change their tooth brush every 2 months, (42/16.8%) respondents change their tooth brush every 3 months, (190/76%) change their tooth brush only when it gets weak. Table 4.3 above indicate that majority of the respondents (200/80%) brush their teeth with tooth brush and tooth paste, (10/1%) respondents brush their teeth with tooth

brush and salt, (40/19%) respondents use chewing stick to clean their teeth, and none of the respondents use only the hand or brush to clean their teeth. More so, table 4.3 indicate that majority of the respondent (220/88%) brush their mouth once in a day, (25/10%) respondents brush their mouth twice daily and (5/2%) respondents brush their mouth three times daily.

Table 3 above shows that majority of the respondents (215/86%) does not brush their mouth before going to sleep, while about (35/14%) respondents brush their mouth before going to sleep. Furthermore, from the analysis in table 4.3 shows that majority of the respondent (211/84.4%) had never been to the hospital for oral checkup. Also (39/15.6%) respondents had one or two visit to the hospital for oral checkup.

Section D: Barriers to Oral Healthcare among Respondents

Table 4.

S/N	Variable	Frequency	Percentage (%)
26	Do you think poverty is a factor that can prevent seeking or oral health? Agreed Disagreed Strongly agreed Strongly disagreed Total	 52 33 153 12 250	 20.8 13.2 61.2 4.8 100
27	Is lack of oral health awareness a barrier to proper seeking of oral health? Agreed Disagreed Strongly agreed. Strongly disagreed Total	 21 34 171 24 250	 8.4 13.6 68.4 9.6 100
28	Are you afraid of visiting the hospital for oral checkup? Yes No Total	 189 61 250	 75.6 24.4 100
29	Is the brashness of oral health provider a reason why you will not visit the hospital for oral checkup? Yes No	 181 79	 72.4 27.6
	Total	250	100
	Please thick the following you may		
	also consider as barrier to proper oral		
	care?		
	Expensive nature of oral treatment	150	60
30	Perception of need	24	9.6
	Fear of been diagnose or having oral		
	Disease	26	10.4
	Negative previous experiences	50	20
	Total	250	100

This objective was also achieved. The Table 4. showed that (52 / 20.8 %) respondents agreed that poverty is one of the Specific factors that prevent proper seeking of oral health, (33 /13.2 %) respondents disagreed that poverty is a factor that can prevent proper seeking of oral health, majority of the respondents (153/ 61.2%) respondents strongly agreed that poverty is a factor that prevent proper seeking of oral health and (12/ 4.8%) respondents strongly disagreed that poverty is an actor that prevent proper seeking of oral health.

From the analysis data in Table 4. (21/8.4%) respondents agreed that lack of oral health awareness is a barrier to proper oral health care, (171/68.4%) respondents, strongly agreed that lack of oral health awareness is a barrier to proper oral health care, and (24/9.6%) respondents strongly disagreed that lack of oral health

awareness is a barrier to proper oral health care.

Table 4. also showed that a majority of the respondents (189/75.6 %) were afraid of visiting the hospital for oral check-up while (61/ 24.4%) are were not afraid of visiting the hospital for oral check-up. Also, table 4. indicate that majority of the respondents (181 /72.24%) confirmed attitude of health providers to be a reason why they will not visit the hospital for oral checkup, while (79/ 27.6%) respondents confirmed that attitude of health providers will not be a reason why they will not visit the hospital for oral checkup.

The table 4. above showed that (150 /60%) respondents considered expensive nature of oral disease treatment as a barrier to oral health care, (24 /9.6%) respondents considered perception of need as a barrier to oral health care, (26 /10.4%) considered fear of being diagnosed of having oral disease as a barrier to oral health care and (50/ 20%) respondents considered negative previous experience as a barrier to proper oral health care.

II. Discussion Of Findings

This section of the research study deals with the discussion of findings in relation to the answers given to the research questions.

Social Demographic Characteristics of Respondents

The study revealed that majority of the respondent (100/41.6%) were between the age ranges of 15-17 years. This may be attributed to the fact that age 15-17 is a dominant age group found in secondary school. The study also revealed (100 /40%) respondents belong to the class SS III, (100/40%) respondents' parents had secondary educational background while some respondents' parent (65/26%) had tertiary educational background. This parent level of education could be a factor that influence the level of oral health knowledge and oral hygiene among public school children in Amassoma community, this finding supports the study conducted by Lawal and Oke (2020) on oral care among children in rural part of Nigerian which observed that majority of the participants (135 /75%) strongly agreed that children attitude and knowledge on oral health is influenced by the educational level of their parent.

Furthermore, the study also revealed that majority of the respondent (205 /75%) were Christians while (45 /25 %) respondents were Muslim. These show school children were the real participants and multi-religion nature of children.

Oral Health Knowledge among Public School Children in Amassoma Community

This objective was achieved. It was revealed by the study that most of the respondents (200 / 80%) had adequate knowledge of oral health. This is in contrast to the study conducted by Uguru, *et al.* (2016). on oral health care among public school children, which revealed that knowledge of oral care among public school children was poor. The study result showed that large numbers of the respondents were able to identify various types of oral disease as follows: dental caries (65/26%), dental plaque (15/6%), oral cancer (100/40%), and gingivitis (40/16%). It was deduced from the study that consumption of too much sweet foods (120/48%), mouth neglect (105/42%), sharing of spoons (20/8%) were the causes of oral disease. This report is in conflict to the study conducted by Al-Darwish *et al*, (2018) on oral health knowledge and sources, they observed in their study that the causes of oral disease were as follows; fresh milk (65/3.1%), excessive consumption of vegetables (110/33.6%), fresh fruits (38/1.8%), and soft drinks (128/61%).

Furthermore, the study revealed that slightly majority respondents (150/60%) had knowledge of good oral hygiene practice while very small group of the respondents (100/40%) had no knowledge of good oral hygiene practices.

It was also revealed that the respondents in higher classes have better knowledge of oral health than the respondents in lower classes. This may be attributed to the fact that elementary/secondary children tends to gain more knowledge as they go higher in their education. More so, it was revealed by the study that most of the respondents (212 /84.8%) agreed that brushing the tooth with soft tooth brush and tooth paste is a good oral health practice. This suggests that school children have adequate information on oral hygiene. This is in contrast to the study conducted by Eley *et al* (2020) on children attitude towards oral health care, which revealed that school children were not well inform about their oral health. Also, the study revealed most (200/80%) respondents had the knowledge that regular brushing of the teeth will result to positive oral feeling. This finding is in support with the study conducted by Khan, Zulfiqar and Waheed, (2023). which states that regular brushing improves healthy well-being.

The study also revealed that regular bushing of the mouth prevents mouth odor (212/77.1%). This suggests that the important of regular brushing is well understood by the public- elementary/secondary school children in Amassoma Community. It was revealed by the study that most (120 /48 %) of the school children in Amassoma community strongly agreed that excessive consumption of sugary food leads to tooth decay. This finding is correlates with the study conducted by Darwish *et al*, (2016).

Practice of Oral Hygiene in Amassoma Community

The study result indicates that (220/88%) of the public- elementary/secondary school children in Amassoma community brush their teeth first in the morning. This may be attributed to increase health education and ongoing campaign on oral health in both public and private school.

It was revealed by the study that all respondents brush their mouth daily, most of the respondents (200/80%) used toothpaste and tooth brush; tooth brush and salt; (25/10%), chewing stick; (5/2%). None of the respondents reported using only hand or only tooth brush. This finding supports the study conducted by Inquimbert, *et al* (2022) on oral hygiene status and practice among rural dwellers in Nigeria. Which observed that majority of the participant cleans their teeth with tooth brush and tooth paste; (133 / 86.4%) and chewing stick; (155/ 74.7%).

The following was also revealed by the study that most respondents (220 /88%) brush their teeth once in a day, (25 /10%) brush twice or more times daily and very few (5 /2 %) respondents brush their mouth three times daily. This may be due to the fact that most public-school children in Amassoma community are unaware of the important of oral health. Result from the study showed that majority (39 /15.6%) have never visit the hospital for oral checkup.

Barriers to Oral Health Care among public School Children in Amassoma Community

The study also revealed that poverty (153/61.2%), attitude of health providers (181/72.4%), and afraid of visiting the hospital (189/75.6%) are barriers to oral health care among public elementary/secondary school children in Amassoma. This finding corresponds with the study conducted by Lawal, and Oke, (2020) on knowledge, attitude and practice of oral health, which revealed that poverty, fear of seeking oral care, and professional behaviors are factors that prevents proper seeking of oral health care among elementary/secondary children.

Implication of the Study to Nursing Practice

Health education should be given to mother, children and school teacher on the need for avoidance of the following:

- Nurses will intensify teaching avoidance of excessive sugary diet.
- Elementary/secondary children should be thought on how to care for their mouth.
- Sensitize children on the effect of hard tooth brush on the gum.
- Adequate use of fluorinated tooth paste.
- Brushing of teeth at least twice daily.
- Encourage children to gaggle with water after eating.
- Tooth brush should be changed every two months.
- The nurse should give education to mother and children on various oral diseases signsand symptoms that require seeking oral health.

Summary

This research study was conducted with goal of exploring the oral health knowledge and oral hygiene among public elementary/secondary school children in Amassoma Community Southern Ijaw Local Government Area, Bayelsa State. The study revealed that public elementary/secondary school children in Amassoma community have adequate knowledge or oral health, average positive attitude of oral health. Factors that were acknowledge as barriers to proper seeking of oral health care, were poverty, attitude of health providers, lack of oral health awareness, and expensive nature of oral disease treatment and fear of visiting the hospital.

III. Conclusion

Based on the reviewed literature there is need for increase awareness of oral health among public elementary/secondary school children in Amassoma community through provision of information to both parents, children and teachers on the need for adequate tooth brushing, regular dental visit. Also, there is need for the federal government to develop oral care work shops where elementary/secondary school children can be assessed on oral disease and treatment can be rendered.

IV. Recommendation

This study advocates for focused interventions and policy initiatives designed to mitigate socioeconomic disparities in paediatric oral health.

Secondly, adequate oral health training should be given to both teachers, parents and children.

Not only that, elementary/secondary school children should be assess on oral health periodically, thereby infusing and stressing in them the important of oral health through classroom. And elementary/secondary school children should be encouraged on adequate use of fluoridated tooth paste for those who can afford it, whereas,

others should be taught on other cheaper means of oral hygiene practices.

In addition, elementary/secondary school children should be encouraged on change their tooth brush every two or three months and there should be adequate implementation of oral health education on school curriculum.

Conflict of Interest

No conflict of interest.

Reference

[1]. Abruquah,A.A.& Dsane, M.(2014).Oralhygiene Awareness Among Junior High Schoolstudentsin Ghana. International Journalof Medicaland Biomedicalsciences,2(3):34-38.

[2]. Adebola,R.A.,Bamgbose,B.O.,Adeoye,J.B.,&Amole,T.G.(2013). Awareness Of Oral Cancer In A North Western Nigerian State: Assessing The Knowledge, Opinion, And Practice Of Traditional Healers And Herbalists. Journal Of Oral Oncology. 1-7.

[3]. Ahmed, M; Gamal El-Din, H; And Kabeel, S (2022) Effect Of Two Denture Teeth Materials On

[4]. Ajayi,D.M.,Arigbede,A.O.(2012).Barrierstooralhealthcareutilizationinibadan,Southwestnigeria.Afr.Healthsci.12(4):507-513.

[5]. Al-Darwish, Mohammed A, M, Al-Thomairy, S. (2015). Oral Health Knowledge And Sources Of Oral Health Information Among School Children In Qatar Journal Of Dental Health, Oral Disorders & Therapy. 2. 1-11.

[6]. Almajed OS, Aljouie AA, Alharbi MS, Alsulaimi LM (2024). The Impact Of Socioeconomic Factors On Pediatric Oral Health: A Review. Cureus. Feb 4;16(2):E53567. Doi: 10.7759/Cureus.53567. PMID: 38445162; PMCID: PMC10914081.

[7]. Anwar, A. I., & Zulkifli, A. (2020). The Influence Of Demonstration Method Education In The Knowledge Of Tooth Brushing In Children Age 10–12 Years. Enfermería Clínica, 30, 429-432.

[8]. Arun, K.P.P., Shankar, S., Sowmya ,J., & Priyaa, C.V.(2010). Oral Health Knowledge, Attitude And Practiceofschoolstudents Of Ksrmatriculationschool,Thiruchengode.JIADS.1(1):5-11.

[9]. Awano,S.,Ansai,T.,Takata,Y.,Soh,I.,Akifusa,S.,Hamasaki,T.,Yoshida,A.,Sonoki,K.,Fujisawa,K.&Takehara,T.(2008). Oral Health And Mortality Risk Frompneumoniaintheelderly.Journal Ofdentalresearch,87(4):334-339.

[10]. Azodo, C & Amenaghawon, Osarobo. (2013) A. Oral Hygiene Status And Practices Among Rural Dwellers. European Journal Of General Dentistry. 2. 10.4103/2278-9626.106806.

[11]. Azodo, C.C., & Amenaghawon, O.P. (2013) B. Oral Hygiene Status And Practices Among Rural Dwellers. European Journal Of General Dentistry, 2, 42.

[12]. Balli S, Shumway KR, Sharan S. (2023). Physiology, Fever. In: Statpearls [Internet]. Treasure Island (FL): Statpearls Publishing; 2024 Jan-. Available From: Https://Www.Ncbi.Nlm.Nih.Gov/Books/NBK562334/

[13]. Bamise,C.T.,Bada,T.A.,Bamise,F.O.,&Ogunbodede,E.O.(2009).Dentalcareutilizationandsatisfactionofresidentialuniversitystudents. Libyan.J.Med.140-143.Availableonlinefrom:Www.Ljm.Org.Ly.

[14]. Bertelsen, R. J., Barrionuevo, A. M. P., Shigdel, R., Lie, S. A., Lin, H., Real, F. G., ... & Svanes, C. (2022). Association Of Oral Bacteria With Oral Hygiene Habits And Self-Reported Gingival Bleeding. Journal Of Clinical Periodontology, 49(8), 768-781

[15]. Bhardwaj,V.K.(2012).Gerodontology-Orodentalcareforelderly.Eur.J.Gen.Dent.1(1):9-15.

[16]. Eley, C. V., Weston-Price, S., Young, V. L., Hoekstra, B., Gadhia, T., Muirhead, V., ... & Mcnulty, C. A. M. (2020). Using Oral Hygiene Education In Schools To Tackle Child Tooth Decay: A Mixed Methods Study With Children And Teachers In England. Journal Of Biological Education, 54(4), 381-395.

[17]. Ephraim-Emmanuel, B., Asara, A., Ronami, O., & Francis, E. (2016). Prevalence Of Dental Fluorosis Among Secondary School Children In Oloibiri Community. International Journal Of TROPICAL DISEASE & Health, 11(1), 1-7.

[18]. Fernandes, S. C., Louceiro, A., Lopes, L. B., Esteves, F., & Arriaga, P. (2021, April). Children's Attitudes And Behaviors About Oral Health And Dental Practices. In Healthcare (Vol. 9, No. 4, P. 416). MDPI.