



Oral Health Knowledge and Practice among Secondary School Students in Enugu East Local Government Area, Enugu State

¹Bolaji Opeyemi, ²Joshua Oriola Oluwafemi, ²Catherine Nkeiru Enyi, ³Chidimma Lucy Odoh

¹Department of General Studies, Federal University of Allied Health Sciences, Enugu

²Department of Applied Science, Federal University of Allied Health Sciences, Enugu

³Department of Human Kinetics and Health Education, Enugu State University of Science And Technology, Enugu

*Correspondence: E-mail: bolajiopeyemi2000@gmail.com +2347031243912

Abstract

The study assessed oral health knowledge and practice among secondary school students in Enugu East local government, Enugu State. A cross-sectional research design was adopted on a population of 19,307 secondary school students. A sample size of 540 students was drawn using multi-stage sampling procedure. The instrument used for data collection was a researcher-developed Knowledge and Practice of Oral Health Questionnaire (KPOHQ), which was face validated by three experts from department of Human Kinetics and Health Education Enugu state University of science and Technology. The internal consistency of the instrument, was established using Kuder Richardson (KR-20) for knowledge of oral health and Cronbach's Alpha Method for practice of oral health which yielded a reliability coefficient of 0.73. Frequency and percentage were used to analyse and answer the research questions, while chi-square statistics was used to test the null hypotheses at 0.05 level of significance.. The results revealed that, secondary school students possessed high knowledge of promotive oral health (55.8%) as well as high practice of oral health (59.3%) among the secondary school students. There was no significantly associated in the level of knowledge of promotive oral health and gender was significantly associated with the practice of oral health. Based on the findings, the authors recommended among others that since the students had high knowledge of promotive oral health and high practice of oral health, measures should be taken by both teachers and public health educators to encourage the students to sustain the knowledge and practice of oral health

Keywords: Oral health, Knowledge, Practice, Secondary school students, Enugu East LGA.

Introduction

Oral health is an integral part of the physical, social and mental wellbeing of an individual. The world Health Organization (2017) defined health as the state of complete physical, mental, and social wellbeing not merely the absence of disease or infirmity. Gboyega (2017) stated that oral health of individuals in developing countries is said to be deteriorating which may be as a result of low knowledge and inadequate access to oral health care. The prevalence of common dental diseases such as periodontal disease amongst Nigerians was 60-70 per cent. World Health Organization (2019) reported that 90.0% of the students in Ibadan had various forms of periodontal disease. Hemphill (2019) estimated that caries prevalence of 11.2 per cent was recorded among secondary school students in Nigeria. Peterson (2016) recent study observed that 35.1 per cent of secondary school students had dental caries due to the inadequate knowledge of oral health



.Oral health is a core component of general health and wellbeing of an individual .A healthy mouth enables an individual to speak, eat, and Socialize without experiencing active disease, discomfort or embarrassment (Adebayo, 2020). The word ‘oral’ could be referred to a mouth. Dewald (2016) stated that mouth is the major gateway to the body, whatever affect oral health may also affect general health because mouth is an essential part of the body used for feeding and communicating. Oral health According to WHO (2019), is a state of being free of mouth and facial pain, oral infections and sores, and oral and other diseases that limit an individual’s capacity in biting, chewing, smiling, speaking, and psychosocial well-being. Oral health conditions, such as dental caries and periodontal (gum) disease continue to plague humanity. In the United States of America, over 70 per cent of students in schools suffer from one form of oral health problem or the other, due to inadequate knowledge of oral health.

Oral health knowledge is a pre-requisite for better oral health care practices, which means that an individual has all necessary data to understand what oral disease is and how it arises, as well as to understand the protective measures that needed to be adopted (Johnson, 2018). A good knowledge about oral health is essential for a promotive and positive oral health-related behaviour (Nachi, 2017).According to Nwobodo (2018), knowledge can be implicit as with practical skills or expertise, or explicit as with the theoretical understanding of a subject and it can be more or less formal or systemic. Having the knowledge of oral health can have meaningful influence on the individuals positively because there is a high possibility that the knowledge acquired will be reflected in the actions and practices of individuals involved. According to Stugh et al. (2018), oral health care of an individual may depend on his or her oral health knowledge and behaviour, which reflect one’s experiences, cultural perception, familiar beliefs and other lifestyle. Mehta et al. (2019) revealed that there is an association between increase knowledge and better oral health, because people who assimilated oral health knowledge may have a sense of personal control over their oral health. Barney (2016) stated that the level of knowledge that students possess therefore, may determine to a great extent their appreciation and understanding of oral health. This knowledge will, in theory, lead to a modification in behavior or practice.

Oral health practices refer to those measures adopted by students that are geared towards avoiding oral diseases in the school as a result of poor dietary habit (refined carbohydrates). Homby (2017) stated that those actions aimed at preventing oral diseases, and these actions include brushing and flossing of the teeth, use of fluoridated tooth paste, proper diet, regular dental maintenance, and continuity care appointments. The preventive measure against dental caries and periodontal disease are basically the proper oral hygiene practice and dietary discipline by individuals. Others are use of preventive dentistry procedures and oral health education of individuals and communities (Wilkin, 2016). Oral health care measures still include brushing the mouth once or twice daily. This ensures that bacteria and microbes present in the mouth are killed and removed from time to time (Paul, 2020). The use of chewing stick helps in cleaning the teeth but not as effective because oral cavity has a number of space that are very small and narrow where even the bristles of the brush cannot reach, hence flossing becomes an effective mechanism to ensure good oral hygiene and health as it helps to prevent particles and debris between the teeth (Udoma, 2017).

Oral hygiene is the practice of keeping the mouth and teeth clean to be free from food debris, preventing dental problems. It can be regard as the process of removing dental plague from the teeth to prevent gingivitis and toothache and this can be achieved by cleaning the mouth regularly after meals and which involve the use of clearing materials, such as toothbrush, mouth rinse, and dental floss (Curtis & Jeannette, 2017).Consequently, good oral health practice demands that all the structures of the oral cavity and surrounding oral tissues must be sound (John, 2019). Also, different methods are adopted by students in different localities for cleaning their oral teeth and oral tissues. These include brushing the teeth with tooth brush

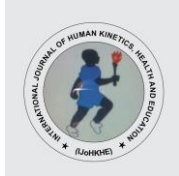


and paste, chewing stick; sand, charcoal, potash, salt powdered ceramics (Werner, 2017). Most of these methods seem not to be effective and they cause stains on the teeth or accumulation of deposits leading to poor oral health and prevalence of oral disease (Aderinokun, 2017). There are different types of oral hygiene measure that can be adopted for the maintenance of oral health. According to Langhan (2018), most researchers recommended brushing the teeth twice a day, and agreed that when performed with fluoridated toothpaste, it could prevent the occurrence of dental diseases. According to Joseph (2017), students can avoid oral diseases by brushing and flossing at least once a day. The use of chewing stick is most common among secondary school students for cleaning their teeth mainly because they are readily available, cheap and affordable

Consequently the oral cavity should be cleaned regularly and with appropriate materials, such as tooth brush with paste containing fluoride, mouth rinsing with water and use of dental floss silk (Audu, 2018). Good oral health habits are measures that people may learn and practice regularly in order to maintain good oral health and prevent oral diseases (Langhan, 2019). Traditionally, two sets of behaviours are the main component of good oral health practices, namely: self-care regular visit, and professionally applied preventive measures, such as fluoridation (Langha, 2016). This practice of oral health is enforced in the school through school health programme.

The aspect of school health programme that introduces oral health education is the school health instruction in a planned sequential curriculum that addresses the physical, mental, emotional, and social dimension of the health of the students. It is designed to motivate and assist students to maintain and improve their health, prevent diseases and reduce health-related risk behaviours (Maryland School Health Series, 2018). The responsibility to help protect, maintain and improve the health of the students is through the school health programmes (Akinsola, 2019). This is because the school health programme (SHP) is composed of school health services, health education instruction, healthful school living, school/community relationship (Jones, & Santoro, 2018). A good quality of life is possible if students across different locations maintain their oral health (Oparah, 2019). The students will become free from oral/dental diseases because those who have assimilated the knowledge will feel a sense of personal control over their oral health and are likely to adopt self-care practices (Daramola, 2019). School health programmes allows students to develop and demonstrate health related knowledge, attitude, skill and practice the comprehensive health instruction curriculum, which includes a variety of topics including oral health education where students are taught about oral health and diseases associated with poor oral health (Nyamukwos, 2018). Therefore oral health education depends largely upon the acquisition of accurate and useful knowledge concerning good oral health on the part of the students. Obike (2017) stated that poor oral health can have adverse effect on students' performance in school and later, it may affect their self-esteem and accomplishments in life. In addition, students with poorer oral health were more likely to suffer dental pain, miss school and showed under performance in school (Longer, 2017).

These students are still in their adolescence stage of 10-19 years of age. Secondary school students are divided into two different groups,; junior secondary and senior secondary (Joseph, 2019). It has been observed that majority of these secondary school students who are still in the stage of physical, emotional and social maturity tend to have problem with their oral (John, 2019). These students normally engage in unhealthy oral practices, such as brushing just once a day, using wrong technique while brushing (horizontal movement instead of up and down motion) eating food containing much sugar and snacks, such as biscuits, candies, chewing gums, sweets, and drinking carbonated soft drinks and researcher is worried that when students have oral problems like dental carries, periodontal diseases, teeth discoloration, teeth loss, they may experience a lot of pain and discomfort leading to



their being absent from school and loosing out of what has been taught for the day. However, if students are knowledgeable on the causes of oral diseases and practice of oral health their general wellbeing would be improved there by contributing to increase in our nation educational standard. Thus, this study assessed the knowledge and practice of oral health among secondary school students in Enugu East local government area, Enugu

Purpose of the Study

The purpose of this study is to assess oral health knowledge and practice among secondary school students in Enugu East local government area, Enugu state. Specifically, the study examined the:

1. level of knowledge of promotive oral health among secondary school students in Enugu East local government area; and
2. level of practice of oral health among secondary school students in Enugu East local government area.

Research Questions

1. What is the level of knowledge of promotive oral health among secondary school students in Enugu East local government area?
2. What is the level of practice of oral health among secondary school students in Enugu East local government area?

Hypotheses

The following null hypotheses were postulated for the study and were tested at .05 level of significance.

1. Gender is not significantly associated with the level of knowledge of promotive oral health among secondary school students in Enugu East local government area.
2. Gender is not significantly associated with the level of practice of oral health among secondary school students in Enugu East local government area.

Methods and Materials

Research Design

The study adopted a descriptive cross-sectional survey research design. A Cross-sectional research design is an observational research that analyses data of variables collected at one given point in time across a sample population (Robert, 2017).

Area of the Study

The study was conducted in Enugu East local government area (LGA), Enugu state. There are 11 public secondary schools in Enugu East LGA, Enugu State, which is made of six co-educational public schools and five girls' only schools. The researchers observed that the secondary school students in the area engaged in eating too much of sweetened foods, snacks, soft drinks amongst others, which would likely predispose them to oral problems.. Thus the study in the area.

Population

The population for the study consisted of 19,306 (JSS1-2 and SS1-2) secondary school students in Enugu East local government area. The Post-Primary School Management Board Records and Statistics [PPSMB], 2022/2023 session, Enugu).

Sample and Sampling Techniques

A sample size of 540 students was selected. The multi-stage sampling procedure was used to select the respondents. The first stage involved using simple random sampling of balloting without replacement to select three secondary schools out of the eleven secondary schools



.The second stage involved the simple random sampling technique of ballot without replacement to select one class each of JSS1-2 and SS1-2 from each of the three schools drawn. Making it a total of 12 classes. The third stage involved using purposively sampling technique to select 45 students from the 12 classes to arrive at the sample size of 540.

Instrument for Data Collection

The instrument for data collection was a researcher-designed Knowledge and Practice of Oral Health Questionnaire (KPOHQ), which consists of two sections A and B. Section "A" elicited information on the personal data (gender) of the respondents. Section B consists of two parts I and II .Part I consists of eight items, that tested the knowledge of the respondents on promotive oral health. This has a dichotomous response format of yes or No" while part II of the questionnaire measured the practice of oral health among secondary school students. This consists of nine items.

The face validity of the instrument was established through the judgment of three experts in the Department of Human Kinetics and Health Education, Enugu State University of Science and Technology, Enugu State.

The internal consistency (reliability) of the instrument was established using Kuder Richardson (kR-20) method for items testing knowledge of promotive oral health and Crobonch's Alpha method for items measuring oral health practice. This was done by administering 20 copies of the instrument on secondary school students in Agbani Education zone of Enugu State. Are liability coefficient of .73 was obtained for the instrument..

Method of Data Collection

In order to have access to the respondents, the researcher presented letter of introduction on fieldwork to the various schools used for the study. The researchers and research assistants administered the questionnaire to the respondents in their respective schools. The respondents filled and returned the questionnaire immediately after completion, and this yield 97 per cent return rate. Out of 600 copies of the questionnaire administered, 540 were properly filled out and used for the analysis.

Data Analysis Technique

Data were coded into Statistical Package for Social Sciences (SPSS version 22) and analysed using frequency and percentags to answer the research questions, while the null hypotheses were tested using Chi-square statistics at .05 level of significance. Responses from 0-49.9 percent were considered as low while responses from 50-100 percent were considered as high.

Results

Table 1: percentage Responses on students on the knowledge of promotive oral health among secondary school students in Enugu East local government Area

N/S	Items		Yes		No	
Dec		f	%	f	%	
1	Eating healthy fruit H	379	70.19	161	29.82	
2	limit the intake of refine carbohydrate H (sweet, biacuits)	303	56.11	237	43.89	
F.	Regular teeth brushing or use of chewing stick H	345	63.89	195	36.11	
G.	Visiting the dentist for routine check up and oral Hygiene advice H	298	55.19	242	44.81	
5.	Rinsing the mouth after meals H	304	56.3	236	43.70	
6.	Avoiding consuming too much sweet foods H	316	58.52	224	41.48	
7.	Regular use of mouthwash H	301	55.74	239	44.26	
8.	Cleaning the spaces between your teeth L	166	30.74	374	69.2	
Overall percentage (%)		55.83		44.17		H

Table 1 shows that overall secondary school students had moderate (55.83%) knowledge of promotive oral health. Specifically, the table shows that secondary school students had high level of knowledge of oral health on items 11, 13, and 16, with frequencies and percentages of 379(70.19), 345(63.89), and 316(58.52) respectively. Also, the table shows that items 12, 14, 15, and 17 had high knowledge of oral health with frequencies and percentages of 303(56.11), 298(55.19), 304(56.3), and 301(55.74) respectively.



Table 2: percentage Responses on students on the practice of oral health among secondary school students in Enugu East local government area

S/N Dec	Items	Yes		No	
		f	%	f	%
9. H	Clean tongue properly when brushing mouth	287	53.5	253	46.9
10. H	Rinsing mouth after each meal	359	66.5	181	33.5
11. H	Brushing their teeth carefully	392	72.6	148	27.4
12. H	Do change my brush every one month	281	52.0	259	48.0
13. H	Use toothpaste to clean your teeth	377	69.8	163	30.2
14. H	Brushing teeth twice daily	298	55.2	242	44.8
15. H	Use sticks to clean your mouth regularly	275	50.9	265	49.1
16. H	Brush my teeth using fluoride containing toothpaste	345	63.9	195	36.1
17. H	Brushing your teeth in upward and downward technique	267	49.4	273	50.6
	Overall Percentage (%)		59.3		40.7

Table 2 showed that over all secondary school students had high (59.3%) practice of oral health. Specifically, the table shows that secondary school students had high level of practice of oral health on items 9, 10, 11, 12, 13, 14, 15, 16 and 17 with frequencies and percentages of 287 (53.5), 359 (66.5), 392 (72.6), 281 (52.0), 377 (69.8), 298 (55.2), 275 (50.9), 345 (63.9) and, 267 (49.4) respectively

Table 3: Chi-square summary table on the gender is not significantly association with the level of knowledge of promotive oral health among secondary school students in Enugu east local government area

Variables	N	Yes	No	X ²	Df	p-value	Sig
Dec							
Gender	540	O(E)	O(E)				
Male	250	134(4.9)	116(1.1)	0.721	1	0.396	0.05
Female	290	166(0.11)	124(4.9)				Not

Rejected

Table 3 shows that gender was not significantly associated with the level of knowledge of promotive oral health among secondary school students ($X^2=0.721$, $df=1$, p -value $=0.396$). Since the p -value is higher than 0.05 level of significance at 1 degree of freedom, therefore, the null hypothesis was not rejected.

Table 4: Chi-square summary table on the gender is not significantly associated with the level of practice of oral health among secondary school students in Enugu East Local Government Area

Variables	N	Yes	No	X ²	Df	P-value	Sig	Dec
Gender	540	O(E)	O(E)					
Male	250	137(139.4)	113(110.2)	0.17	1	0.008	0.05	
Female	290	164(161.6)	126(127.8)					

Table 4 shows that gender was significantly associated with the level of practice of oral health among secondary school students ($X^2=0.17$, $df=1$, p -value 0.008). Since p -value is less than .05 level of significance at 1 degree of freedom, therefore, the null hypothesis is rejected.

Discussion

Table 1 revealed that respondents possessed overall high level of knowledge of the promotive of oral health among secondary school students in Enugu east local government area. The finding was expected and therefore not surprising, this is because the respondents might have been taught of oral health education in their various schools. More so the respondents may also have acquired more knowledge on oral health during their school health activities or programmes. Thus, several studies have indicated that knowledge of promotive of oral health is improved the level of oral health. The finding is in accordance to Mehta, pills and Singh (2019) who revealed that there an association between increase knowledge and better oral health because people who assimilated oral health knowledge may have a sense of personal control over their oral health.



Table 2 revealed that students in Enugu east local government area possessed high practice of oral health. This is expected and therefore not surprising. This is because respondents are the adults that have independent to practice oral health by their selves. The finding is in accordance to the assertion of Homby (2017) who posited that practices are those actions aimed at preventing oral diseases, these actions include brushing and flossing of the teeth, use of fluoridated toothpaste proper diet, regular dental maintenance and continuity care appointment. Similarly, the finding is in agreement with Langha (2018) postulated that most researchers recommended brushing the teeth twice a day and agreed that when performed with fluoridated toothpaste ,it could prevent the occurrence of dental diseases.

Table 3 the tested hypothesis revealed that gender has no significantly associated with the level of knowledge of promotive oral health possessed by secondary school students .This finding is not surprising because gender have nothing to do with oral health of an individual and secondary school students are the adults whose can easily promote the habit of promotive oral health and sustain the knowledge they already have on oral health. Similar with the finding of Stugh, Watt, Dali, and Scott (2018), oral health care of an individual may depend on his or her oral health knowledge and behavior, which reflect ones experiences, cultural perception, familiar beliefs and other life style.

Table 4 the tested hypothesis revealed that gender has significantly associated with the level of practice of oral health possessed by secondary school students. The finding is not surprising because it is obviously thatfemalesarebynaturemorepracticesgeneralhygieneandcleanlinesssthantheirmalecounterparts. brushing teeth twice a day, visit dentist at least twice a year will help to improve oral health and prevent oral diseases..Many of the students brushing their teeth twice a day while some do just once a day. Similarly, with the finding of Joseph (2017), students can avoid oral diseases by brushing and flossing at least once a day the use of chewing stick is most common among secondary school students for cleaning their teeth mainly because they are readily available, cheap and affordable.

Conclusion

The findings have shown that secondary school students had high knowledge of promotive oral health as well as high practices of oral health by brushing their teeth at least twice a day. On the other hand gender did not affect their level of knowledge but is associated with their practice of their oral health.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Health education should be enforced by the teachers on the importance of brushing twice a day.
2. School oral health programmes should be embarked upon by the dental professionals in the state with the assistance of the ministry of health.
3. Regular dental check up should be encouraged by the teachers of the various schools.



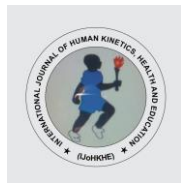
References

- Adebayo, L.A. (2020). Oral health knowledge and practices of secondary school students
Tange
Tanzania, *International Journal of Dentistry*
- Aderinnokun, J. K. (2017). Promoting Dental Health education as a panacea for prevention of
common oral Diseases in Nigeria. *Akoka Journal Of Technology And Science
Education, 3,1.*
- Akinsola, A. B. (2019). The common risk factor approach; a rational basis for promoting
rural
health. *Community Dental Oral Epidemiology, 28(6): 399-404.*
- Audu, P.O. (2018). An evaluation plan for the development and up-dating nutrition
curriculum at the upper elementary and preparatory levels in Jordan, *IVNS/UNESCO
International Conference in Nutrition Education 10(2),67-74.*
- Adama, A.A. (2018). Health and oral health related knowledge and behavior a study of
secondary school students in dares salaam, Tanzania (master`s thesis). Available
from
<https://boravib.no/bistream/handle/1956187/94922681>.pdf?sequence.
- Barney, m. (2016). Oral health knowledge and practice among Nigeria primary school
teachers.
International Journal of Dental Hygiene .9,254-267.
- Curtis and Jeannette,R.O.(2017). short test book of public Health medicines for the tropics
London: Book Power. 13-17
- Daramola, R.S. (2019). Knowledge and practice of oral health and oral diseases among
young
adolescents in Sweden. A cross sectional study. *Journal of public health, 3 (2): 10-
20*
- Dewald, A. F. (2016). Well water fluoride in Enugu, Nigeria. *The International Journal of
occupational and Environmental medicine,3(2),96-98.*
- Gboyega, J. O. (2017). Oral health in Nigeria. *Journal of Dental Health, 53,361-365.*
- Hemphill, J. K. (2019). Antimicrobial activities of some Nigeria chewing sticks.
Ethnobotanical leaflets,10,265,265-271.
- Horby, V. O. (2017). National survey of periodontal status and treatment need among
Nigerians



International Dental Journal ,45,,194-203.

- Johnson, J. (2018). Evaluation of oral health awareness of secondary school teachers (4th ed.). Westport, London Libraries Limited.
- Jones, T. & Santoro, A. B. (2018). Oral health knowledge and practice among secondary school students in Nigeria Medical Journal: Journal of the Nigeria Medical Association. 5(1),9-16.
- Joseph, A. A. (2017). Oral health knowledge and practice of school students of KSR matriculation school, Thiruchengale. *Journal of Indian Academy of Dental specialists*,1(1),4-12.
- Joshua, O. O. (2017). The concept of health .Retrieved from <http://hpathy.com/homeopathy – papus/the concept of health>.
- Lamgham, D. A. ((2019). Global policy improvement of oral health in the 21st century implications to oral health research of world Health Assembly 2007
- Langham, D. A. (2018). Oral health impact periodomenal Diseases in Adolescents.Denmark:Royal Dental College.
- Laugha, D. A. (2016). Nutrition, diet and oral heath .int. Dent journal 1994:48-612
- Longer, G. O. (2017). Oral hygiene measures and the periodontal status of school children. *International Journal of Dental Health Knowledge* 9,143 - 149.
- Mehta J, Pilla A., & Singh, K.(2019). Knowledge and practices of Dental Health care web med. *Central Dentistry* 4(2) Wmc 000402.
- Nachi, L.O. (2017). Prevalence and the impact of age and sex on the use of recommended oral self care measures by pupils in southern Nigeria, open university press.132.
- Nwobodo, A. B. (2018). The health belief model and preventive health behavior. *Health Education Monograph*, 2, 354-356.
- Nyamukwos, K, (2018). Knowledge and practices related to oral health among students in United Arab Emirates. *Journal of Community Med.* 9, 10- 14.
- Obike, R. O. (2017). Dental Hygiene London: Quintessence publiship (publishing) company
- Paul, D. A. (2020). Evaluation of knowledge, attitude and practice (KAP) about oral health among secondary level students of rural Nepal-A questionnaire students .webmed central check Dentistry 2(3).Retrieved from [http : //www.webmedcentral.com/wmcpdf /Article –Wmcoo1805.PDF](http://www.webmedcentral.com/wmcpdf/Article –Wmcoo1805.PDF).
- Peterson, J. (2016). An introduction to oral health care for community workers Ibadan kembu press ltd



- Peterson, L. A.(2017). Improving low awareness and inadequate access to oral health care in Nigeria: The role of dentist,the government and non governmental agencies .Nigeria *Nigeria Medical Journal*, 51(3),134-136.
- Stugh, Watt, Dali and Scott. (2018). Global policy for improvement of oral health in the 21st century – Implications to oral health research of world Health Assembly 2007,world Health Organization *International Dental Journal*, 58,115-121.
- Udoma, V.O. (2017). Dental infections and bacteria plague in the primary care setting *Amfam Physician*, 77 (5), 79-80
- World Health Organization (WHO)(2018) School Health Program (SHP) and oral impacts with perceived need for dental treatment among secondary school students in Nigeria *Health Journal*, 17, 13-16
- Werner, S.O. (2017). The health belief model and preventive health behavior. *Health Education Monographs*, 2: 354 – 356.
- Wilkin, A.O. (2016). Oral Health profile of school children, Mothers and school teachers in Zamzi bar community dental health 15: 24– 25.
- World Health Organization, (2019). Oral health practice among secondary school student in Lagos State \and investigate the influence of oral hygiene practices on carries experience. *Health matter*, London (19)2.