

## **Personal Hygiene Practices and School-Based Health Education Among Secondary School Boarding Students in Okura Community of Dekina LGA, Kogi State**

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### **Abstract**

*Personal hygiene is necessary for illness prevention and health promotion. Adolescents are learning to be responsible for their health, and school-based health education encourages knowledge-based compliance with good personal hygiene in boarding schools. There is a dearth of studies that assess hygiene practices and school based health education in boarding schools in Nigeria. The main goal of this study was to investigate the personal hygiene practices and school-based health education among boarding secondary school students in Okura community of Dekina LGA in Kogi state, Nigeria.*

*The study adopted a mixed method design and gathered data using a structured questionnaire from two hundred and eighty four (284) consenting boarders in four schools in Okura, Kogi. Qualitative data through semi-structured interview and Tesch's content analysis was utilised. Multistage sampling technique was used. Data analysis was by descriptive and inferential statistics at 5% level of significance.*

*Frequency distribution revealed that majority of the respondents, 154 (54.2%) were less than 15 years, and 130(45.8%) between 15 and 17 years old. Knowledge, practice and perception figures were  $18.6 \pm 1.4$ ,  $8.8 \pm 2.8$  and  $6.7 \pm 2.4$  respectively. Over two thirds of the students engage in good personal hygiene practices 96.7% with good school health education. Respondents with positive and negative perception were 91.6 % and 8.4% respectively. Findings revealed a significant positive relationship between personal hygiene practices and school health education.*

*School based health education has a significant positive impact on personal hygiene practices of boarding school students. It is recommended that continuous lectures and exercises be improved and maintained in boarding schools. Additionally, policies, infrastructure and methods that encourage school-based health education and personal hygiene practices in boarding schools should be prioritised by the government.*

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**Keywords:** *Personal hygiene related Knowledge and Practices, school based health education, boarding secondary school students*

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## **INTRODUCTION**

Hygiene refers to conditions or practices adopted to help improve or maintain good health, prevent the spread of diseases, through keeping the body and surroundings clean (World Health Organization [WHO], 2020). Hygiene is gotten from “Hygieia”, a greek word which refers to the spirit of health, sanitizing self and environment as well as cleanliness (Narendra et al, 2020). Accordingly, personal hygiene refers to the act of keeping the body, clothes and personal environment clean in order to maintain or improve health and wellbeing. Alaba (2021) defines personal hygiene as the actions and practices done to maintain or improve body cleanliness which involves self-care; bathing, grooming, care of the skin, hair, nails, mouth, teeth, eyes, ears and nose. It is the basis of good grooming and health which involves all measures taken by an individual to improve his or her health (Johnson, 2015). Additionally, personal hygiene refers to the process of trying to achieve as well as maintaining a state of cleanliness of the body with more emphasis on the external body. It is important to improve the physical, mental, social health and well-being, as well as well-being of others in the immediate surroundings. There are different types of personal hygiene which include oral/ dental hygiene, body hygiene, cloth hygiene, toilet, nail, genital and menstrual hygiene etc.

Personal hygiene practices are the application and performance of knowledge of personal hygiene in daily actions to promote individual/ family well-being as well as prevent diseases. These practices ensure proper hygiene and this has numerous benefits, some of which include personal aesthetics, illness prevention and quick recovery, mitigation of spread of infections, peer group acceptance and emotional health stability. On the other hand, neglect of hygiene can lead to detrimental consequences (Doaga, 2019), and these include the following: Body odour and allergies: from poor bathing practices, repeated wearing of smelly, stained or dirty stockings or clothing, not airing shoes/ foot wear out, not washing the feet. Secondly, halitosis, gum diseases and tooth problems or decay resulting from negative oral habits such as not following the proper sequence to brush or not brushing regularly enough. Others include not brushing the surface of the tongue properly to take off the whitish coat, taking bad or smelly substances, heavy smoking and regular intake of acidic drinks. Thirdly, body lice results from habits like not bathing at all or regular wearing of soiled or dirty clothes or using dirty bed linen. Lastly, others include athletes’

foot from wearing wet socks repeatedly, dandruff, pin worms, excessive ear wax and GIT diseases (Web Health Centre, 2015).

Studies have shown that over 60 percent of the infectious disease burden present in communities are as a result of poor sanitation/ poor hygiene practices and this is a fast growing public health concern, more in developing countries than in developed countries (WHO, 2022). Unfortunately, adolescents have been known to be on the bulk of the receiving side as they may or may not have adequate information or resources to perform good personal hygiene practices. According to WHO (2022), over 829 000 people in countries with poor income die as a result of poor hygiene annually, this represents about 60% of deaths caused by diarrhoea. According to Cajetan et al (2016) 65% of teenagers in secondary schools in Enugu state had skin infections, rashes and mouth odour. Additionally, poor supply of clean water and unhygienic surroundings can lead to hygiene problems and other diseases. Thus, the practice of personal hygiene can be affected by the presence of adequate water and hygiene facilities in the school setting and lead to occurrence of diseases (Alaba, 2021).

School-based health education (SBHE) helps students have access to appropriate health information, and this improves attitudes, beliefs, and skills necessary to adopt and maintain positive health habits throughout their daily lives. School based Health education is significant in mitigating health risks for adolescents by providing adequate, effective health education including good personal hygiene and hygienic practices, sexual health, mental/ emotional health, food and nutrition etc. A school-based health education program in Vietnam improved students' non-cognitive skills, life aspirations gap as well as the quality of life in terms of health significantly (Yoon et al, 2021).

### **Statement of the Problem**

Scholars have found that poor hygienic conditions and habits are of great concern and have significantly increased the amount or burden of communicable illnesses in both advanced and developing economies (Motakpalli, Indu, Sirwar, Jayaalakshmi & Bendigeri, et al., 2013; Ilesanmi, 2017). Few previous studies have investigated the presence of diseases related to poor personal hygiene practices among students in secondary boarding schools in Nigeria. A study by Cajetan et al (2016) of various health problems among 1463 teenagers in secondary schools in Obollo-Afor education zone of Enugu state found skin infections, rashes and mouth odour among students with the boys reporting about 40% higher rates of infection than their female counterparts.

Miko et al (2012) emphasized that adults, students and school children are vulnerable to neglect of good basic hygiene practices. Studies have indicated that there is a strong and consistent causal relationship between infectious diseases and practices detrimental to hygiene (Alyssa et al 2010: Ohaka & Lemchi, 2020). Hence, adequate personal hygiene practices by adolescents and school based health education are significant in improving health and guaranteeing illness prevention practices among adolescents. Furthermore, school based health education is essential to encourage knowledge based compliance with personal hygiene, this is significant because adolescents, as they soon grow into adults, need to know how to take responsibility for their personal health.

The researcher has practiced in a range of health facilities and has encountered quite a number of boarding students and adolescents who have diseases that are caused or worsened by poor hygiene practices such as scabies, ring worm, athlete foot etc. which were mostly picked in the boarding house due to a decline in personal hygiene due to fair knowledge of hygiene and a lack of urge to comply. Studies such as Ohaka & Lemchi (2020), have been carried out on the knowledge and practices of personal hygiene on different groups in Nigeria including North central Nigeria. However, there exists a dearth of studies on personal hygiene practices adopted by boarding school students. There is therefore the need to investigate the practices of personal hygiene and school based health education among boarding secondary students in Okura community of Dekina Local government Area of Kogi state, and to make the findings from this study available to both the local and state government.

### **Aim of the Study**

The aim of this study is to assess the personal hygiene practices and school based health education among Secondary school boarding students in Okura of Dekina LGA, Kogi state.

### **Objectives of the Study**

The specific objectives of the study are to:

1. Determine students' knowledge of personal hygiene practices.
2. Assess the current types of personal hygiene practices adopted among secondary school students in Okura.
3. Assess availability of amenities for promoting personal hygiene of students in school during the period of study

### **Research Questions**

The following research questions will be answered at the termination of this study:

1. What is the level of personal hygiene knowledge among adolescents in boarding secondary schools in Dekina Local government Area of Kogi state?
2. What are the various personal hygiene practices adopted by boarding students' in Okura?
3. What facilities are available for promoting personal hygiene among boarding secondary school students in Dekina Local government Area, Kogi state at the time of carrying out this study?

### **Significance of the Study**

In recent times, diseases of public health concern such as COVID 19 have been on the increase, and majority of them are hinged on the importance of personal hygiene. Furthermore, health and hygiene awareness have become quite significant, especially for children and adolescents who may not have adequate knowledge and skills to maintain good personal hygiene in order to improve their health as well as mitigate the spread of infections. There are no studies on hygiene practices

and health education in boarding school students in Okura in Dekina LGA, this study is aimed at filling this gap. Consequently, the results gotten from this study will be useful in determining the personal hygiene practices and school based health education amongst boarding school students in Okura community of Dekina LGA, Kogi state.

In addition, there is an important need for appropriate health education through the curriculum/framework of schools to help students improve their level of knowledge concerning personal hygiene and its practices. Therefore, the outcome derived from this research can be used by the school management to plan appropriate educational interventions that will encourage school adolescents to take steps to improve their personal hygiene, or maintain/ improve on the existing health educational curriculum. Additionally, the findings from this study can be useful for policy development and interventions on personal hygiene among adolescent school students.

The qualitative aspect of this study explored the students' perspective on the personal hygiene practices adopted by individual students and school based health education on personal hygiene in Okura of Dekina LGA of Kogi state, as they take responsibility for their hygiene as well as those around them. Furthermore, the study aims to reveal wrong perceptions and practices that exist among adolescents in Dekina LGA as well as vacuums in knowledge and skills with a view to making policy recommendations.

## METHODS

This study adopted a mixed method study with embedded design comprising both quantitative and qualitative study design with data collected separately. This design is best used to focus on the quantitative data but also need the qualitative data to further understand and explain the concept (Miroslav, 2023). The quantitative study employed a cross-sectional design while the qualitative study was by use of key informant interviews. A cross-sectional design is a kind of study that analyzes population or subset data, at a particular time via observation. The aim of the study is to assess the personal hygiene practices and personal hygiene targeted school based health education among in-school secondary students' resident in the boarding house in Okura community of Dekina LGA, Kogi state.

The Study setting are 2 private schools: Nigerian Navy Secondary school, Okura, Holy-ghost College Okura, and 2 public schools: Okura Secondary School and Dekina Secondary college in Okura community of Dekina LGA of Kogi state.

**Okura** community is located in Dekina local government area and is in Kogi State of North Central Nigeria. It is inhabited largely by Igala people and other ethnic such as the Idoma, Bassa Komo, Bassa-Nge, , the Kakanda, the Egbira Mozum. It is bounded by the Benue river, by Enugu and Anambra to the South, by Benue State to the East, and by River Niger to the South-West. It covers an area on 12,753.92 km<sup>2</sup>.

**Dekina** LGA is a local government area located in Kogi State of Nigeria. The headquarters is located Dekina town, in the Middle Belt area and on the A233 highway at 7°41'41"N 7°01'20"E. The area is 2,461 km<sup>2</sup> with over 260,312 members at the census of 2006. The geographical area is made of (9) local government areas (LGAs); Ankpa, Dekina, Bassa, Ibaji, Omala, Idah, , Ofu, Olamaboro and Igalamela/Odolu. The area is located between latitude 6°32'33.8"N to

8°02'44.8"N and longitude 6°42'08.5"E to 7°51'50.3"E. The area occupies 26,197 km<sup>2</sup> and it shares borders with over six (6) states in Nigeria. In the North area, its boundaries are shared with Nassarawa, with Edo state and Delta state to the West, and the East with Benue, Anambra, and Enugu States. The district is in the Southern Guinea Savanna vegetation belt of Nigeria, and typically has wet season and dry season from the months of April through October and from November through March respectively. The yearly rainfall ranges between 800 to 1100 mm. The general temperature is between the ranges of 24.1 to 31.2°C. The target population comprised students within 9-19 years of the public and private boarding secondary schools in Okura community of Kogi state (Nigerian Navy Secondary school, Okura, Holy-ghost College Okura, and 2 public schools: Okura secondary School and Dekina secondary college). Each of the schools have about 800 to 1,000 students and they are all strictly boarding schools with no day students, therefore, the accessible population at the time of study consists of about 800 students for each school.

The four boarding secondary schools available in Okura community were used for this study. Multistage sampling method was employed in the study and it involved random sampling and systematic random selection. The sampling process involved the following stages:

Stage 1: The two private and two public schools in the study site were used and were visited in no direct order. Using proportionate sample to size, the sample size was divided among the four schools.

S/N AS VISITED	SCHOOL VISITED
1	Nigerian Navy Secondary school, Okura
2	Holy ghost College Okura
3	Dekina Secondary College
4	Okura Secondary school

Stage 2: In each school, classes were stratified using the existing JSS1 to SSS3 formal class system.

Stage 3: Using simple random system by balloting, selection of students from each level of education that is JSS1 to SSS3 in each school was carried out. Jss1 (10), Jss2 (10), Jss3 (9), Sss1 (9), Sss2 (11) and Sss3 (11) making a total of 60 students selected in each school

Stage 4: Using a systematic random selection technique. every fifth student on the class register was selected then questionnaires were shared amongst the selected students from each class, for example in a class of 30 students, every 5<sup>th</sup> name on the class list was selected for the study.

#### **Sample size determination**

The sample size of the study was gotten by using Leslie Fisher's Formula for estimating single proportion;

$$n = Z^2PQ/I^2$$

Where  $n$  = Sample size,  $Z$  = Normal deviation at desired confidence level (1.96),  $P$  = Proportion of population with desired characteristics,  $Q$  = Proportion of population without desired characteristics) =  $1-P$ , and  $I$  = Degree of precision (0.05)

$$n = \frac{(1.96)^2 \times 0.8 \times 0.2}{(0.05)^2}$$

$$n = 246$$

Non response rate of 10% of the sample size was used:  $246 + 38.04 = 284$

Sample size: 284 students

## RESULTS AND DISCUSSION

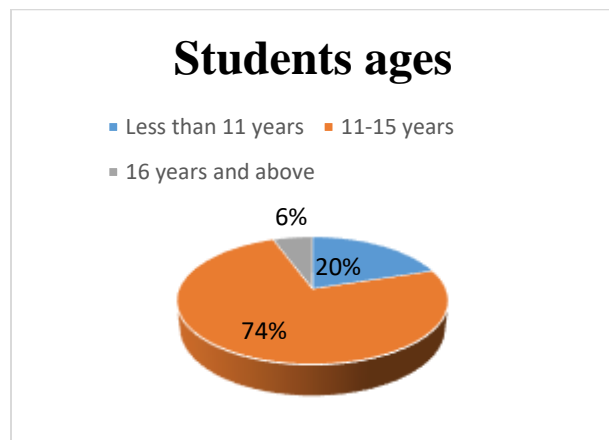
This chapter presents the results of the study as well as discussions

**Table 1: Distribution of Students based on Gender**

Gender	Frequency	Percent (%)
Female	166	58.45
Male	118	41.55
<b>Total</b>	<b>284</b>	<b>100.0</b>

The result in Table 1 shows the distribution of students in the study sample based on their gender. As shown in the table, 58.45% of the students were female while 41.55% were male. This indicated that female dominated the study sample.

**Table 2 Age of Students**



**Figure 1: Pie Chart Showing the Distribution of Students Based on Age**

The result in Figure 4.1 shows the distribution of students in the study sample based on their ages. As shown in the pie chart, 20.07% of the students were less than 11 years, 74.30% of the students were 11-15 years, while 5.63% of the students were 16 years and above. This indicated that students of ages 11-15 years dominated the study sample.

### 3 Class of Students

**Table 3 Distribution of Students Based on Class**

Class	Frequency	Percent (%)
JSS1	48	16.90
JSS2	46	16.20
JSS3	42	14.79
SS1	50	17.61
SS2	48	16.90
SS3	50	17.60
<b>Total</b>	<b>284</b>	<b>100.0</b>

The result in Table 3 show the distribution of students in the study sample based on their class. As shown in the table, 16.90% of the students were in JSS1, 16.20% were in JSS2, 14.79% were in JSS3, 17.61% were in SS1, 16.90% were in SS2, while 17.60% of the students were in SS3. This indicated that SS1 and SS3 students dominated the study sample.

**Table 4: Mean Analysis of Personal Hygiene Knowledge among Adolescents in Boarding Secondary Schools**

Items	SA	A	U	D	SD	n	$\bar{x}$	Remark
I know what personal hygiene is	202	33	18	20	11	284	4.39	High
I have been taught personal hygiene in school	247	29	8	0	0	284	4.84	Very High
I practice personal hygiene daily	199	85	0	0	0	284	4.70	Very High
Personal hygiene is important for good health	189	84	11	0	0	284	4.63	Very High
Personal hygiene involves eating balanced diet	64	68	35	79	38	284	3.14	Moderate
It does not matter if your clothes are clean, your surroundings can be dirty.	45	52	18	125	44	284	2.75	Moderate
Poor hygiene can cause sickness	158	98	20	8	0	284	4.43	High
A female should bath at least twice daily when on period	166	97	11	10	0	284	4.48	High
Your hair hygiene does not affect your health	78	87	56	31	32	284	3.52	High
Poor personal hygiene can cause scabies, ring worm, diarrhea, cholera,	188	90	0	6	0	284	4.62	Very High



Good personal hygiene can prevent malaria	99	87	48	30	20	284	3.76	High
The nose should be cleaned only when there is mucus	88	59	21	65	51	284	3.24	Moderate
<b>Grand Mean</b>							<b>4.04</b>	<b>High</b>

Where **0-2.50** is Low, **2.5-3.5**= Moderate, **3.5-4.5**= High, **4.5** above= Very High

The result in Table 4 shows the level of personal hygiene knowledge among adolescents in boarding secondary schools in Dekina Local Government Area, Kogi State. As shown in the table, the analysis of item one “I know what personal hygiene is” gives a mean of 4.39, which indicated a high level of knowledge of personal hygiene amongst the students. This could be a result of the students being taught personal hygiene as indicated in item two with a mean of 4.84. The result also indicated that the students exhibit a very high level of practicing personal hygiene daily with a mean of 4.70. The students also indicated that personal hygiene is important for good health with a mean of 4.60. The students indicated a moderate knowledge when asked whether personal hygiene involves eating balance diet with a mean of 3.14. The analysis also indicated that students indicated students exhibited high knowledge on the contribution of poor hygiene to sickness with a mean of 4.43. Also, the grand mean of 4.04 is an indication of a high level of personal hygiene knowledge among secondary school students in Dekina Local Government Area of Kogi State.

#### 4.2.2 Research Question 2

What are the various personal hygiene practices adopted by boarding students’ in Dekina of Kogi state?

Mean was used to answer research question 2, and the result is presented in Table 5.

**Table 5: Mean of Personal Practices Adopted by Boarding Students**

Items	A	ST	NE	n	$\bar{x}$	Remark
I bathe with soap and water at least once daily	195	89	0	284	2.69	Always
I use my under-wears once and wash them after use	87	197	0	284	2.31	Sometimes
I brush my teeth at least once daily with toothbrush and toothpaste	211	73	0	284	2.74	Always
I share toothbrush and sponge with my friends and family	11	58	215	284	1.28	Never

I cut my nails whether with my teeth or nail cutter	214	70	0	284	2.75	Always
I regularly clean my surroundings	185	87	12	284	2.61	Always
As a lady, during my menses, I change my sanitary pad regularly	101	65	0	166	2.61	Always
I practice regular hand washing with soap and water	138	146	0	284	2.49	Sometimes
I wash my socks daily and keep it clean and dry	91	151	42	284	2.17	Sometimes
I wash my hands with soap after making use of the toilet facility	183	75	8	284	2.49	Sometimes
I wash my uniform after wearing it once	79	137	68	284	2.04	Sometimes
As a female, I dispose pads in the toilet	17	59	90	166	1.56	Sometimes
I wash my hair daily and keep it clean	149	135	0	284	2.52	Always
I wash and change my hairdo every week	89	183	12	284	2.27	Sometimes
I clean my nose with my fingers	48	193	43	284	2.02	Sometimes
<b>Grand Mean</b>						

A = Always, ST = Sometimes, NE = Never

The result of the analysis in Table 5 indicated the various personal hygiene practices adopted by boarding students' in Dekina. As shown in the table the students always bath with soap and water at least once daily ( $\bar{x} = 2.69$ ), students sometimes wash their under-wears after using it once ( $\bar{x} = 2.31$ ), students always brush their teeth at least once daily with toothbrush and toothpaste ( $\bar{x} = 2.74$ ). The result also indicated that the student never share their toothbrush and sponge with friends and family ( $\bar{x} = 1.28$ ), the students always cut their nails with their teeth or nail cutter ( $\bar{x} = 2.75$ ), the students always clean their surroundings ( $\bar{x} = 2.61$ ). The result further indicated that as ladies, during menses, the students always change their sanitary pad regularly ( $\bar{x} = 2.61$ ), the respondents practice hand hygiene by washing hands with soap and clean water ( $\bar{x} = 2.49$ ), sometime wash their socks daily ( $\bar{x} = 2.17$ ), sometimes wash their hands with soap after using the toilet ( $\bar{x} = 2.49$ ), sometimes wash their uniforms after using it once ( $\bar{x} = 2.04$ ), and sometimes dispose their pads in the toilet ( $\bar{x} = 2.56$ ). It can equally be deduced from the result that the male students always wash their hair daily and keep it clean ( $\bar{x} = 2.52$ ), sometimes wash and change their hairdo every week and sometimes clean their nose with fingers. From the analysis, it is noted that the various personal hygiene practices adopted by boarding students' in Dekina are; bathing with soap and water at least once a day, washing their under-wears, brushing their teeth at least

once daily, not sharing toothbrush with others, changing sanitary pad regularly and disposing them, washing hands regularly, washing their uniforms.

### 4.2.3 Research Question 3

What facilities are available for promoting personal hygiene among boarding secondary school students in Dekina Local government Area, Kogi state at the time of carrying out the study?

**Table 6: Mean Availability of Facilities for Promoting Personal Hygiene among Boarding Students**

Items	A	ST	NE	Total score	<u>n</u>	$\bar{x}$	Remark
My school has good water supply	154	130	0	284	284	2.54	Always
My school has functional toilets and wash hand basins	173	111	0	284	284	2.61	Always
My school has soap and tissue for use by students	89	195	0	284	284	2.31	Sometimes
My school has adequate number of toilet facilities	96	188	0	284	284	2.34	Sometimes
My school's toilet facilities are regularly washed with disinfectants	127	157	0	284	284	2.42	Sometimes
My school authority regularly conducts inspection on students classroom facilities	138	98	48	284	284	2.32	Sometimes
My school has good refuse disposal system	98	137	49	284	284	2.17	Sometimes
My school has bins for disposing sanitary pads	88	178	48	284	284	2.35	Sometimes
<b>Grand Mean</b>						<b>2.38</b>	

A = Always, ST = Sometimes, NE = Never

The result in Table 6 shows the mean availability of facilities for promoting personal hygiene among boarding students in secondary school in Dekina Local Government Area, Kogi State. As shown in the table, the schools always have good water supply ( $\bar{x} = 2.54$ ), always have functional toilets and wash hand basins ( $\bar{x} = 2.61$ ), sometimes have soap and tissue for use by students ( $\bar{x} = 2.31$ ), sometimes have adequate toilet facilities ( $\bar{x} = 2.34$ ). the result further indicated that the school toilet facilities are sometimes washed with disinfectants ( $\bar{x} = 2.42$ ), the school authority sometimes conduct inspection on students' classroom facilities ( $\bar{x} = 2.32$ ), the school sometimes have good refuse disposal system ( $\bar{x} = 2.17$ ), and the school sometimes have

bins for disposing sanitary pads ( $\bar{x} = 2.35$ ). From the analysis, it can be concluded that good water supply, functional toilets, soap, tissue paper and waste disposal bins are available for promoting proper personal hygiene among boarding students in secondary school in Dekina Local Government Area, Kogi State.

## **Recommendations**

### **To students (participants)**

1. Students are encouraged should maintain good hygiene and speak out to the authorities when the facilities are not available or adequate to promote personal hygiene

### **To parents:**

2. Parents should endeavour to ensure adequate provision as well as regular check or inspection of personal hygiene materials for their wards when going to school

### **To school teachers and school authorities**

3. Gratification and punitive measures for students for maintaining good hygiene practices should be included in the school curriculum.

4. Parents and guardians should be informed and rewarded when their wards practice excellent hygiene in the school or otherwise.

5. Facilities needed to encourage personal hygiene should be provided for the students by the school and this should be checked by the Government before starting the school and regularly.

6. Advocacy by the school to the community, Government or Non-Governmental organizations for assistance in provision of hygiene facilities for the students.

### **To the Ministry of Education**

7. It is recommended that more researches on school based health education and personal hygiene among primary school and boarding school students should be conducted and these findings be made available to the federal, state and local government for utilization.

8. It is also recommended that awareness on the importance of good personal hygiene be improved to avoid diseases of public health concern especially amongst adolescents in the school environment.

## **CONCLUSION**

In this chapter, the findings of the study have been presented and based on these findings, the conclusions drawn are below:

All the stated objectives of the study were met and the study identified a high level of knowledge concerning personal hygiene practices amongst the students as well as the different types of personal hygiene practices adopted by the students and the facilities available to promote hygiene. The study also revealed the students' knowledge and perception of school based health education on personal hygiene.

It could be concluded from this study that there is a statistically significant and positive association between personal hygiene practices and school based health education. This implies that the more adequate the school based health education on personal hygiene is, the higher the practice of personal hygiene by the students.

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