

Personal Hygiene Practices of Primary School Pupils: A Strategy for Fighting COVID-19

¹Ohaka Adaku Regina, ²Oluwaleyimu, O. O. & ³Okeke, E. N.

^{1&3}Department of Home Economics,

Alvan Ikoku Federal College of Education Owerri, Imo. State

²Department of Science and Technology Education, University of Lagos, Lagos State

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Abstract

The purpose of the study was to determine personal hygiene practices of primary school pupils in Owerri, Imo State. Two purposes and two research questions guided the study. The study was carried out in Imo State, Nigeria within the early (January to February, 2020) at the onset on COVID-19 Pandemics. Descriptive survey research design was adopted for the study. The study's population was made up of 980 pupils and random sampling technique was used to derive a sample size of 200 pupils. Structured and validated questionnaire was used for data collection. Data collected were analyzed using frequency and percentage. The findings of the study showed that 89% (174) of the pupils had knowledge that personal hygiene refers to maintenance of cleanliness of one's body and clothing. Also, 97.5% (195) of the pupils reported associating personal hygiene with good health. However, 15% (30) and 10.5% (21) of the pupils did not have knowledge that personal hygiene helps to reduce contamination of infectious diseases and prevents body odour respectively. Furthermore, the study's results indicated that 98% (196) of the respondents do not wash their hands immediately they return back from school. Also, 22.5% (45) and 15% (30) do not cover their nose and mouth when sneezing and coughing respectively. The study concluded that personal hygiene practices of primary school pupils needs to be upgraded. The study therefore, recommended re-orientation of the pupils on the observance, need and importance of personal hygiene by the school management.

Keywords: *Personal Hygiene, Practices, Primary School, Pupils, COVID-19*

Corresponding Author: Ohaka Adaku Regina

Background to the Study

Hygiene is the practice by which individuals protect or encourages good health by keeping themselves and their environment clean. Haradanahalli, Ramya and Nitu (2019), described hygiene as conditions and practices that encourages maintenance of health and prevention of spread of disease. In addition, personal hygiene practices are one of the significant parts in our everyday lives at schools, offices, market places and homes as it protects us from contamination of infectious diseases and keeping us with good health.

In the same vein, personal hygiene denotes to the total cleaning and caring of one's body and clothing. Personal hygiene requires one's body, clothing and the environment to be clean for prevention of spread of infectious diseases. It encourages good grooming and healthy living. The maintenance of good hygiene is essential for the nation's population's health and well-being. Negligence of personal hygiene practices results to outbreak of diseases e.g. diarrhea, dysentery, vomiting, dental problems, skin disease and including COVID-19. Supporting this, Ghona, Nadia and Abeer (2018), Kumar, Kumar, Singh, Jiyanllah and Kumar (2018), reported that Abandonment of personal hygiene and safety practices among individuals is a major risk factor in the spread of infection.

Current research studies indicated that one of the major reasons for high incidence of infectious diseases are caused by poor personal hygiene practices (Sarkar, 2013 and Ghanim et al., 2016). Also, Ajay, Ranyu, Krishna and Maginsh (2018) emphasized that poor personal hygiene practices have been found to be a serious public health challenges and people often affected are school children. Outbreak of infectious disease is often very common in an overcrowded environment e.g. in primary schools. Several studies indicated that people with abridged immunity to infection add up to about 20% of the population and they are mostly children and the elderly (International Scientific Forum on Home Hygiene, 2012). However, personal hygiene practices have been noted as one of the cost-effective measures for prevention of infectious disease including COVID-19 Coronavirus (Sekhon and Minhas, 2014; Center for Disease Control and Prevention, 2013; WHO 2009; Mohammed, 2015). Infectious diseases can easily be contracted among primary school children due to overcrowded environment and poor personal hygiene practices. As a result, most pupils get sick and skip school, lessons and it affects their academic performance. Parents spend a lot of money in hospital to treat their children from infectious diseases. Often time the pupils contact infectious diseases from the school and then spread it to the family members which in turn increases the family health spending and danger of contracting COVID-19.

Considering the rapid spread of COVID-19 since December 2019 with symptoms such as slight cough that often persist over time, feeling of short breath, low fever that increases subsequently with high temperature. The Federal Ministry of Health advised its citizens to observe certain precautions and personal hygiene practices for prevention of COVID-19. The precautions include: regular hand washing with soap and water, rubbing the hands with sanitizer, distancing self-5 feet away from others when coughing and sneezing, avoidance of crowd among others. In respect to this advice, it is important that every Nigerian citizen should observe good personal hygiene practices to prevent rapid spread of COVID-19

pandemics. It becomes pertinent that everyone including primary school pupils should practice good hygiene as a step to fight the spread of COVID-19 Pandemics. Therefore, the need to assess personal hygiene practices of primary school Pupils: A strategy for fighting COVID-19.

The following purposes and research questions were raised to guide the study.

Purpose of the Study

1. Assess the knowledge of personal hygiene among primary school pupils in AIFCE, Owerri.
2. Assess the personal hygiene practices adopted by primary school pupils in AIFCE, Owerri.

Research Questions

1. What is the knowledge of personal hygiene among primary school pupils in AIFCE, Owerri?
2. What are the personal hygiene practices adopted by primary school pupils in AIFCE, Owerri?

Methodology

The study was carried out in Imo State, Nigeria within the month of January and February during early days of onset of COVID-19 Virus. Imo State is one of the States in the current 36 States of Nigeria. Specially, the study was carried out in Alvan Model Primary School. The primary school was basically a demonstration school where a good number of the pupils were staff children of Alvan Ikoku Federal College of Education, Owerri (AIFCE) and also children from the enlightened homes. The school has a big play ground that is not fenced and a big football field which enable the pupils to engage in series of exercises during break periods and even after school hours as they wait for their parents and guardians to pick them. During the physical exercise, they touch themselves and soil both their hands, clothes and bodies that they can contaminate themselves thus providing a fertile ground for spread of infectious diseases including COVID-19.

The population of the study comprised all the Pupils from primary one to six. It was made up of 980 pupils. Random sample technique was used to select 200 pupils according to the class population of the pupils. Data was collected with the aid of validated and structured questionnaire. The questionnaire was administered through face to face contact method. Data collected were analyzes using descriptive statistics (frequency and percentage).

Results

Table 1: Personal Data on Sex, Class and Age Distribution of Respondents

Personal Data	Frequency	Percentage
Age		
6-8 years	60	30%
9-11 Years	84	42%
12 Years and Above	56	28%
Sex		
Male	85	42.5
Female	115	57.5%
Class		
Primary 1-3	123	61.5%
Primary 4-6	77	38.5%

42% of the pupils were within the age range of 9-11 years of age and 42.5% and 57.5% were boys and girls respectively. Also, the majority of the pupils were in primary 1-3.

Table 2: Respondent's Knowledge of Personal Hygiene Practices

S/N	Knowledge of Personal Hygiene	Yes	No
1	Personal hygiene means cleanliness of one's body and clothes	178(89%)	22 (11%)
2	Personal hygiene helps to prevent spread of diseases	170(85%)	30(15%)
3	Personal hygiene is good for good health	195(97.5%)	5(2.5%)
4	Personal hygiene is evidence of good home training	171(85.5%)	29(14.5%)
5	I Know the importance of personal hygiene	144(72%)	56(28%)
6	I Know the problems associated with poor hygiene practices	135(67.5%)	65(32.5)
7	Personal hygiene prevents body odour	179(89.5%)	21(10.5%)

On the meaning of personal hygiene 170(85%) and 30(15%) had knowledge that personal hygiene helps to prevent spread of diseases and 144 (72%) knew the importance of personal hygiene. Also, 65(32.5%) and 179(89.5%) had knowledge of the problems associated with poor hygiene practices and that good personal hygiene practices help in prevention of body odour.

Table 3: Personal Hygiene Practices of the Respondents

S/N	Personal Hygiene Practices	Always	Sometimes	Never
	Do you wash your hands?			
1	After sneezing	68(34%)	87(43.5%)	45(22.5%)
2	After coughing	102(51%)	68(34%)	30(15%)
3	After using the rest room	146(73%)	30(15%)	24(12%)
4	After touching dirty object	84(42%)	96(48%)	40(20%)
5	After playing	80(40%)	58(29%)	62(31%)
6	Before eating	172(86%)	28(14%)	-
7	After eating	155(77.5%)	45(22.5%)	-
8	With water only	150(75%)	50(25%)	-
9	With water and soap	145(72.5%)	50(25%)	10(5%)
10	Immediately you returned home from school	-	4(2%)	196(98%)
	How often do you bath?			
11	Once daily	123(61.5%)	64(32%)	13(6.5%)
12	Twice daily	115(57.5%)	60(30%)	25(12.5%)
13	Three times daily	24(12%)	42(12%)	134(67%)
	How often do you brush your teeth			
14	Every morning	145(72.5%)	30(15%)	25(12.5%)
15	Both morning and night	58(29%)	92(46%)	50(25%)
16	Not every day	185(92.5%)	10(5%)	5(2.5%)
	How often do you wash your school uniform			
17	Every day I returned from school	19(9.5%)	175(87.5%)	6(3%)
18	Once weekly	90(45%)	98(49%)	12(6%)
19	Once it is dirty	155(77.5%)	35(17.5%)	10(5%)
20	Do you cover your mouth with your elbow crook or tissue when belching	12(6%)	15(7.5%)	173(86.5%)
21	Do you cover your mouth and nose elbow crook or tissue when coughing and sneezing	18(9%)	13(6.5%)	169(84.5%)

146 (73%) and 84(42%) of the pupils wash their hands always after using the rest room and touching dirty objects. On washing hands immediately, they returned back from school none of the pupils wash their hands always and 196(98%) never wash their hands. Also, only 19(9.5%) always wash their school uniforms everyday they returned back from school. In respect to covering mouth with once elbow crook or tissue when belching, coughing and sneezing only 12(6%) and 18(9%) always practiced it in that order.

Discussion

The study's findings on personal data (sex and age) indicated that the age range of the pupils: six to eight years was 60 (30%), nine to 11years 84(42%) and 12years and above 56(28%). 85(42.5%) and 115(57.5%) were male and female respectively. The total numbers of girls were bigger than that of the boys. The study differs from the study of Haradanahalli, Ramya, and Nitu (2019) who reported that the percentage of boys (52.1%) was higher than that of the girls (27.9%) on their study on personal hygiene practices and related skin diseases among primary school children of urban poor locality.

The findings of the study showed that 89% (178) of the pupils had knowledge that personal hygiene refers to maintenance of cleanliness of one's body and clothing while 11% (22) of the pupils do not have the knowledge. Also, 97.5% (195) of the pupils reported associating personal hygiene with good health. However, 15% (30) and 10.5% (21) of the pupils did not have knowledge that personal hygiene helps to reduce contamination of infectious diseases and prevents body odour respectively.

The present study showed that 178(89%) and (97.5%) of the pupils had knowledge that personal hygiene means cleanliness of one's body and clothing and that personal hygiene is good for maintenance of good health correspondingly. Also, 56(28%) 65(32.5%) of the pupils do not have knowledge on the importance and problems associated with poor personal hygiene practices. The study's findings differ from the study

Personal knowledge of personal hygiene will help the pupils to practice good hygiene practices. This will help in prevention of infectious diseases. It will also help the pupils to stay safe and prevent contact and spread of COVID-19 pandemic. Ghaim, et, al (2016) stated that awareness of importance of proper hygiene practices play a significant role in prevention of infectious diseases and it also, help pupils healthy to be and productive life in future. Primary school people are susceptible to contamination of infectious diseases. Most often, they are less concern to cleanliness of their body and clothing at this level. They need to be reminded on the concept and importance of proper hygiene practices by their parents, guardians and classroom teachers. High percentage of the pupils acknowledging the meaning and importance of personal hygiene may be as a result that most of their parents and guardians may be learned and their standard of living might be high since the school is AIFCE demonstration school. The previous study's similar findings to the present study whose respondents 97% and above reported having knowledge of the meaning of personal hygiene (Bastos 2010; Kumar and Akoijam 2015). Also, 170(85%) of the respondents had knowledge that personal hygiene helps to prevent spread of infectious disease while 15% do not have the knowledge. The pupils having knowledge that good personal hygiene helps to prevent one from contracting COVID-19 among school pupils will encourage them to practice and observe proper hygiene at school and home and it will also influence their future life positively. The study also, showed that 65(32.5%) of the pupils are not aware of the problems associated with poor hygiene practices. The pupils not being aware of the problems may have nonchalant attitude on proper hygiene practices. This however, will endanger and expose the pupils to infectious disease thereby affecting the health status and eventually their future health.

According to hand washing hygiene practices 68(34%) always, 87(43.5%) sometimes and 45(22.5%) of the pupils wash their hands after sneezing. Also 146(73%) and 172(86%) wash their hands after using the rest room and before eating. Several studies carried out in various places also indicated similar findings concerning hand washing. A study carried out by Talukdar and Baruah (2015) among primary school children showed that 98(4%) of the children washed their hands after using the rest room and 88(84.62%) before eating. In another study carried out by Kunde and Adsul (2014), 55% of the school children wash their

hands regularly with soap after using the toilet and 64% of the school children wash their hands after eating while in school. Rubby, Beena, Khan and Srivastava (2017) also carried out a study on school children, they reported that 87.5% and 70% of the children washed their hands after using the toilet and before eating respectively. Considering the above study, there is an indication of poor hygiene practices among pupils. The fraction of the pupils that do not practice hand washing after using the toilet and before eating are likely to be exposed to infectious diseases that can be contracted from the toilet or dirty hands. Possibly if they are infected, even those children that practice hand washing after using the toilet and before eating can also contract infection because the infected children can now be agent for the spread of the diseases among the school children. It then means that most of the pupils' hand will be dirty after break periods and eventually their dirty hands will dirty and contaminates their clothing, thus, exposing themselves and the family members to health challenges. It will also, lead to nonattendance of school that may, in turn, affect academic efficiency and performance. Paul, Panigrahi, Soodi, and Sahu (2017), Aiello and Larson (2002b), Soumya, Dutta, Aparajita, and Misra, (2010) states that there is significant relationship between infectious diseases and poor personal hygiene practices. The present study also showed that 84(42%) and 80(40%) of the pupils always wash their hands after touching dirty objects and playing respectively. It then implies that there is likelihood that they will dirty their clothes and books with dirty hands. Dirty clothes are capable of harboring microorganisms that transmit infectious disease from one person to the other. In that regard the family is not safe as these pupils can transmit diseases to their respective homes via their school clothing. Nandrup- Bus (2009) emphasized that hand hygiene deliberately decreases illness-related to absences in elementary school students by 26%. Also, Aiello, Coulborn, Perez, and Larson (2008) reported that a recent meta-analysis of 30 hand hygiene studies recorded that an improvement in hand washing reduces the prevalence of upper respiratory tract infections by 21% and gastrointestinal infections by 31%.

Almost all the pupils 196(98%) do not wash their hands immediately they return back from school. Also, 123(61.5%) and 115(57.5%) of the pupils always took their bath once and twice daily correspondingly. A study conducted among school children on hygiene practices by Haradanahalli, Ramya, Nitu (2019) indicated that 40.7% of the children took bath daily. In other related studies by other researchers' the percentage of the children that took bath once daily are as follows: 82.6% (Kakkar, Kandpal and Aggarwal, 2012), 80% (Talukdar and Baurah, 2015), 81% (Paul, Panigrahi, Soodi and Sahu, 2017), 42% (Sarkar, 2013). The pupils not washing their hands immediately they returned back form school has an implication. Disease causing organisms contracted from the school can be carried and transmitted to people in the home, thereby jeopardizing the family health issues.

The present study's finding reported that only 12(6%) of the pupils always cover their mouth with their elbow crook or tissue when belching while only 18(9%) of the pupils always cover their mouth and nose with elbow crook or tissue when coughing. This showed that the pupils were not covering their mouth and nose when belching and sneezing, hence, they can act as agent for spread of pathogens especially if they are infected. Practicing covering the mouth and nose with elbow crook or tissue when coughing and sneezing at this COVID-19 critical

period can help to break the chain of infections. This is because the main source of infection in the home and school are people who are infected particularly from coughing and sneezing (Blommfield 2013, International Scientific Forum on Home Hygiene, 2012). COVID-19 pathogens can be transmitted through uncovered coughing and sneezing by the infected people. This poses a big challenge to the people both in the school and home especially at this COVID-19 pandemic period.

Conclusion

Access to information concerning importance of hygiene and problems associated with poor hygiene practices are very important to the pupils in order to reduce contamination and spread of infectious diseases. Furthermore, it will reduce poverty, improve health and increase wealth among the citizens; of course good health is wealth.

The study concluded that personal hygiene practices of primary school pupils is very poor specifically washing hands immediately when they return back from school hence, it needs to be improved. Not washing their hands immediately, they return back from school can lead to spread of infectious diseases and COVID-19 which can be easily transmitted from persons to persons through hand and body contact. Therefore, regular hygiene education and guidelines for remaining safe with COVID-19 pandemic has to be imparted to all school pupils from their parents, teachers and guardians. This will help to reduce the rate of contracting and spreading infections among the pupils. This is the time to imbibe good hygiene practices to the pupils which they will eventually carry over to their adult life thus, transmitting good behavioral pattern to the future generation and the society as a whole.

Recommendations

The study therefore, recommended that:

1. All the primary school pupils should be taught and exposed fully on the meaning, importance and role of hygiene in prevention of infectious diseases.
2. The pupils should be re-orientated on the observance of personal hygiene practices by the school management.
3. Primary school pupils should be duly educated on good and proper hygiene practices.
4. Also, parents and guardians should make available hand washing buckets with water, soap and sterilizer outside their door post for the pupils to wash their hands immediately they are back from school.

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