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WATER AND SANITATION HYGIENE PRACTICE IN PUBLIC SECONDARY SCHOOLS IN OYO TOWN

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Abstract

This study assesses the level of water, sanitation, and hygiene services in public secondary schools in Oyo town, Oyo State, Nigeria. The study design was a descriptive survey. The population of this study was students in public secondary schools. The instrument for this research was a self-designed questionnaire administered to one hundred and twenty students. Data collected were analysed using descriptive statistics. The result showed that few 21 (17.5%) of students mentioned that their schools have main source of water. In addition, water is not always available from the main source. The sanitation status of public secondary schools in Oyo town is somewhat encouraging since 82 (68.3%) of the students said they have sanitation facilities. Furthermore, toilets are available in public secondary schools in Oyo, however, 50 (41.7%) of the students still defaecate in open spaces. Soap and water are not available in all of the public secondary school environments for hand washing. This study, has indicated that there are significantly poor wash services in public secondary schools in Oyo town, and which could pose public health problems to the students and staffers, the surrounding public, and the entire society at large. The government should try their best to provide boreholes for public schools in Oyo so as to make the availability of drinkable water much easier, and provide public dumping bins and also mobile dustbins for the schools in Oyo town.

Introduction

Water is an important medium through which many diseases spread in the human population. The essential role it plays in human life cannot be over-emphasized, especially in the sustenance of life and promotion of health. Thus, it is difficult to separate issues of water and sanitation from life as they have a magnificently on our health and general wellbeing. The provision of adequate water, sanitation and hygiene (WASH) facilities in schools has been linked to the achievement of the Millennium Development Goals (MDGs) on universal primary education, gender equality and child mortality, and more recently to the achievement of the Sustainable Development Goals, and in particular Goal 6 on clean water and sanitation by 2030 (UN General Assembly, 2015). The agents of disease or pathogens such as

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bacteria, viruses, and parasites are normally passed out in faeces in large numbers, and if not properly disposed-off, the source of drinking water supply will be contaminated, given the fact that just one (1) gram of faeces may contain as many as ten million (10,000,000) viruses, one million (1,000,000) bacteria, one thousand parasites (1000) parasite cysts, and one hundred (100) warm eggs. These microorganisms are infectious when consumed with water or food and may cause frequent diarrhea in children, including dysentery, cholera, typhoid, and hepatitis A.

The statistics clearly show that more than one hundred million (100,000,000) people lack improved sanitation facilities such as latrines or toilets, while a larger proportion of the population practices open defecation. Therefore, it is not enough to provide communities with a supply of safe water and latrine alone without hygiene promotion (UNICEF, 2008). In 2018, Nigeria's Water, Sanitation and Hygiene (WASH) sector was declared to be in a state of emergency by the government. In 2019, a combination of inadequate infrastructure, a lack of required human capital, poor investment, and a deficient enabling regulatory environment, amongst other challenges, meant that approximately 60 million Nigerians were living without access to basic drinking water. 80 million people had no access to improved sanitation facilities, while 167 million could not access basic handwashing facilities. In rural areas, 39% of households lack access to at least basic water supply, while only half have access to improved sanitation and almost a third (29%) practice open defecation, a fraction that has marginally changed since 1990 (The World Bank Group,2023).

It is expected that if the proportion of the population using improved drinking water sources and the proportion of the population using improved sanitation facilities increase, there will be a reduction in disease transmission and mortality/morbidity rates World Health Organization and United Nations Children Fund (UNICEF, 2018). there is therefore a need for imbibing the provision of WASH infrastructures and behavior change strategies. However, there is still a noticeable problem regarding the WASH progress in Africa and the Sub-Saharan regions of Africa; that is why school-based WASH programs are out there to serve as a platform that spreads health promotion efforts to a larger audience to increase awareness and practice in the society. The program indeed takes students as good ambassadors that are to massively relate the good WASH policies to the larger society at home (Winter et al., 2021). A healthy youngster has more potential to attend and finish schools (Jiya et al., 2020).

However, some reports from developing nations such as Nigeria have been negative about the achievement of WASH in schools. Many (secondary) schools are in a deplorable state, some having no WASH indicators at all; and most of the available data on WASH focuses on households with no other avenues like schools, despite the schools being very significant to children/students. Schools play a crucial role in the life of children and youngsters, and when there are bad indicators of WASH, a chain of disease transmission could be improved and schools become fruitful avenues for transmission of diseases (Olukami, 2013). The assessment of WASH at schools is indeed a portend to policy makers to determine how to manage WASH and make new policies to remedy water-related issues in the entire society, because schools are avenues for socialization that need the highest water quality services to save the lives of children and youngsters, especially those before the age of five (Toleubrkov et al., 2022). Poor WASH harms children's education, especially females who frequently leave schools to urinate in the bush and who are frequently harassed or treated disrespectfully as a result (Sridhar et al., 2020). Young people are more susceptible to the effects of poor WASH, particularly in developing countries where children under the age of five experience high rates of morbidity and mortality related to water-related problems (Sridhar et al., 2020;

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Mustapha et al., 2022). The aim of this study was to assess the levels of WASH services in public secondary schools in Oyo Town.

Statement of the Problem

In Nigeria, diarrhea is the second highest childhood killer disease, as it causes about 17% of deaths in children every year, and every second a child dies because of poor sanitation (UNICEF, 2010). Studies has shown that improved sanitation and good hygiene practices with adequate water supply reduces the incidence of cholera, helminth infection, diarrhea, pneumonia, and malnutrition, among other illnesses, and prevent approximately ten million (10,000,000) deaths each year in the human population. It is therefore necessary for every household to be provided with a safe drinking water supply backed by good personal hygiene and community sanitation practices to prevent and control prevailing water-sanitation related diseases in communities (UNICEF 2010).

Objective of the study

The objective of this study was to assess water sanitation and hygiene practices in public secondary schools in Oyo town.

METHODOLODY

Study Area

The study was conducted in Oyo state, Nigeria. Oyo State is located at the southwest of Nigeria, between latitudes 8.12˚ and longitude 3.42˚ It is within the forest region, predominantly with trees and shrubs. Oyo is situated at 7.85° N latitude, 3.93° E longitude, and 287m elevation above sea level. The climate is composed of dry and wet seasons with relatively high humidity. The dry season lasts from November to March, while the wet season starts in April and ends in October. Oyo town has a population of 471,182 people. -

Research Design

The study design was a descriptive survey that allows the researcher to have an in-depth understanding of the respondents' perception.

Population of the study

The population of this study comprised students in public secondary schools in Oyo town.

Sample and sampling techniques

The sampling technique is stratified random sampling, and the sample size is one hundred and twenty (120) students randomly selected from four (4) local government areas in Oyo town. Thirty (30) students each from Oyo West, Oyo East, Atiba, and Afijio Local Government Areas.

Research instrument

The instrument for this research was a self-designed questionnaire with two sections, namely section A and section B. Section A comprises demographic information about the respondents, while section B deals with items on water, sanitation

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Reliability and validity of the Instrument

A test-retest reliability method was used where the researchers first administered the questionnaire to some students. The reliability was analysed using Cronbachs' alpha, the reliability coefficient was 0.71. The questionnaire validity was done by an expert in the field.

Procedures for data collection---

The researcher took the corrected version of the questionnaire to the field to approach the respondents for administration. The researcher distributed and retrieved the instrument from the respondents.

Procedures for data analysis

The collected data were analysed using descriptive statistics.

RESULTS

Research Question 1: what is the water supply status in public secondary schools in Oyo town?

Table: I: *Frequency and percentage distribution of water supply status in public secondary schools in Oyo town*

S/N	ITEMS	Regularly	Rarely	Not at All	No Response
1	There is a main source of water in the school	52 (43.3%)	64 (53.3%)	4 (3.3%)	0 (0%)
2	Drinking water is frequently available as the main source	21 (17.5%)	71 (59.2%)	26 (21.7%)	2 (1.7%)
3	There is a breakdown/interruption in the supply of drinking water in the school	34 (28.3%)	70 (58.3%)	16 (13.3%)	0 (0%)
4	Water storage is available to for staff and students for easy access	75 (62.5%)	31 (25.8%)	13 (10.8%)	1 (0.8%)

From table 1, 52 (43.3%) said they have main source of water regularly, 64 (53.3%) stated that they rarely get main source of water, also, 4 (3.3%) disclosed they do not have main source of water. Also, 21 (17.5%) mentioned that they regularly get drinking water from the main source while 71 (59.2%) of the respondents rarely get drinking water from the main source, also, 26 (21.6%) of the respondents said they do not get water from the main source and 2 (1.7%) of the respondents did not indicate whether they regularly, rarely or do not get drinking water from the main source. 75 (62.5%) of the respondents disclosed they regularly have water storage to keep water for staff and the students, while 31 (25.8%) of the respondents said they rarely have water storage facilities, also, 13 (10.8%) of the respondents said they do not have water storage facilities, and a respondent 0.8% of the respondents did not indicate whether they regularly, rarely or do not have water storage to keep water for staff and the students.

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Research Question 2: what is the sanitation status in public secondary schools in Oyo town?

Table: II: *Frequency and percentage distribution of the status of sanitation in public secondary schools in Oyo town*

S/N	ITEMS	Available	Rarely	Not at All	No Response
1	Toilets are available for staff and students	77 (64.2%)	29 (24.2%)	11 (9.2%)	3 (2.5%)
2	Water and soap are in the toilets for cleanliness	35 (29.2%)	60 (52.3%)	20 (16.7%)	1 (0.8%)
3	No handwashing facilities or water available at the school	26 (21.7%)	27 (22.5%)	62 (51.7%)	5 (4.1%)
4	Presence of sanitation facilities at the school	82 (68.3%)	30 (25%)	7 (5.8%)	1 (0.8%)
5	Students defaecate in open places	50 (41.7%)	40 (33.3%)	30 (25%)	0 (0%)

Table 2 is showing the status of sanitation in public secondary schools in Oyo town. 77 (64%) indicated that toilets are available for staff and students, while 29 (24.2%) of the respondents disclosed that toilets are rarely available for staff and students, also, 11 (9.2%) of the respondents' said toilets are not available for staff and students and 3 (2.5%) of the respondents did not indicate whether toilets are available or not for staff and students. Also, 35 (29.2%) of the respondents said water and soap is available in the toilets for cleanliness, while 60 (52.3%) of the respondents indicated that water and soap is rarely available, also, 20 (16.7%) of the respondents said water and soap is not available, and 1 (0.8%) of the respondents did not indicate whether water and soap is available or not in the toilets for cleanliness. 26 (21.7%) disclosed that they have hand washing facilities while 62 (51.7%) indicated that handwashing facilities are not available. 50 (41.7 %) of the respondents said the students defecate in open places, also, 40 (33.3%) of the respondents mentioned that the students rarely defecate in open places, while 30 (25%) of the respondents said the students do not defecate in open places.

Research Question 3: what is the hygiene status in public secondary schools in Oyo town?

Table: IV: *Frequency and percentage distribution of the status of hygiene in public secondary schools in Oyo town*

S/N	ITEMS	Regularly	Rarely	Not at All	No Response
1	Soap and water are available to wash hands in every joint of the school environment	19 (15.8)	35 (29.2%)	66 (55%)	0 (0%)
2	Students do not use their bare hands to pack refuse in the school	39 (32.5%)	56 (46.7)	24 (20%)	1 (0.8%)

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3	Staff and students use separate toilets and visitors	71(59.2%)	24 (20%)	23 (19.2%)	2 (1.7%)
4	The school repair and clean the toilet if it is necessary	60 (50%)	42 (35%)	18 (15%)	0 (0%)
5	Soap is available in all the toilets to wash hands after used	54 (45%)	29 (24.2%)	37 (30.8%)	0(0%)

Respondents were asked if soap and water are available to wash hands in every joint of the school environment. 66 (55%) of the respondents said soap and water is regularly available in every joint of the school to wash hands, while 35 (29.2%) said soap and water is rarely available in every joint of the school to wash hands, also, 19 (15.8%) of the respondents said soap and water are not available in every joint of the school to wash hands. Also, the respondents were asked if students do not use bare hands to pack refuse in the school. 39 (32.5%) of the respondents said on regular bases, students do not use bare hands to pack refuse in the school while 56 (46.7%) of the respondents said students rarely use bare hand to pack refuse in the school environment, also, 24 (20%) of the respondents said students do use their bare hands to pack refuse in the school environment, and a respondent, (0.8%) of the respondent did not indicate whether regularly, rarely or do not pack refuse with their bare hands. Also, the respondents were asked if staff and students use separate toilets as well as visitors. 71 (59.2%) of the respondents said staff and students regularly use separate toilets as well as visitors, while 24 (20%) of the respondents said staff and students rarely use separate toilets as well as visitors, also, 23 (19.2%) said staff and students do not use separate toilets as well as visitors, and 2 respondents 1.7% of the respondents did not indicate whether staff and students use separate toilets as well as visitors, regularly, rarely or not at all.

DISCUSSION OF FINDINGS

This study aimed to assess the water and sanitation status of senior secondary schools in Oyo. The result of the finding from research question one shows that drinkable water is available in many public secondary schools in Oyo town and is easily accessible. Furthermore, few schools in Oyo town have a main source of water, and water is not always available from the main source; at times, they have water breakdown from the main source. Some of the importance of clean, readily available water in schools is to break the chain of disease transmission among children so that they may consume healthy food, always wash their hands after coming into contact with contaminants, waste, or chemicals in the lab, and stay away from faeces. When children lack access to safe and sufficient water, the chain of diseases that cause sickness, malnutrition, hospitalization, poor academic achievement, absence, and even morbidity or death is improved. When clean, sufficient water is available in schools, teachers and other school personnel are protected from illnesses (Mustapha et al., 2022). Water storage is available for easy access when needed. These findings are in line with the findings of Egbinola and Amanambu (2015), which stated that schools in Ibadan have sources of water, one is connected to a water corporation, some are using boreholes while others are using boreholes, and one school is dependent on a nearby stream.

Findings from research question two revealed that the sanitation status of public secondary schools in Oyo is somewhat encouraging. Furthermore, toilets are available in public secondary schools in Oyo; however, some of the students still defaecate in open spaces, and hand washing facilities are not readily available for cleanliness. Some schools keep refuses in the school environment, which is a bad habit. Toilets in secondary schools in Bayelsa state have shown a similar trend, with most institutions (Ogbuehi et al., 2020) having toilets in appalling conditions. It is impossible to overstate the importance of sanitation, which in this study refers to the toilet. This device guarantees total isolation between people and their excrement, thus preventing infections. Children will suffer more when there is no better toilet because disease transmission is guaranteed. They must miss class when they are ill, parasitic worms can cause malnutrition, children may do poorly in school, and they may experience various negative impacts that have an impact on education as a result. These findings corroborate those of Egbinola and Amanambu (2015), who discovered that public schools in Ibadan have either pit latrine or water system toilets.

Findings from research question three showed that soap and water are not available in every joint of the public secondary school environment to wash the hands of staff and students. The public school repairs and cleans the toilet when necessary. Also, some students use their hands to pack refuse, which is very wrong. This is similar to a study from Lagos city where the availability of hygiene in latrines was grossly insufficient, as reported by Olatunji and Thanny (Olatunji & Thanny, 2020). In a nutshell, this has demonstrated how poor hygiene indicators have spread throughout many schools in the nation, and the consequences are bound to revamp the health of children and the entire public health.

Conclusion

The findings showed that there are significantly poor WASH services in public secondary schools in the state, which could pose public health problems to the school children and staff, the surrounding public, and the entire community. Poor WASH can devastatingly affect the academic achievement of students through school absenteeism during sick days, open defecation or menstrual hygiene, shyness or searching for water, or malnutrition caused by parasitic worms.

Recommendations

Based on the findings of this research, the government should try their best to provide boreholes for public schools across the state to make the availability of drinkable water much easier, provide public dumping bins and mobile dustbins for the schools in Oyo town, the government or NGOs should sensitize the students about the danger of using hands to pack refuse, and sanitation officers should visit public schools to ensure proper cleaning of the school environments.

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