

**FACTORS CONTRIBUTING TO POOR SANITARY CONDITIONS
IN SOME SELECTED SECONDARY SCHOOLS IN IKPOBA OKHA
LOCAL GOVERNMENT AREA, EDO STATE.**

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FACULTY OF EDUCATION
UNIVERSITY OF BENIN
BENIN CITY**

AUGUST, 2019

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**A RESEARCH PRESENTED TO THE DEPARTMENT OF HEALTH,
SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY OF
EDUCATION, UNIVERSITY OF BENIN, BENIN CITY. IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
B.SC (ED) DEGREE IN HEALTH EDUCATION**

AUGUST, 2019

APPROVAL

I, the undersigned, hereby approve this project is adequate in scope and quality in partial fulfillment of requirement for the award of Bachelor Degree in Education in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin.

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CERTIFICATION

We certify that this research was carried out by **OMOGIAFU EHIZOGIE** with matriculation number **EDU1310838** of the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City Nigeria.

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DEDICATION

This project is dedicated to God Almighty for sparing my life to see this day come through.

Also I dedicate this project to my lovely and amiable mother late Mrs. Florence Omogiafu who assisted me financially and also taught me how to face the realities of life.

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ABSTRACT

The main purpose of this study is to find out factors contributing to poor sanitary conditions in some selected secondary schools in Ikpoba Okha Local Government Area. The study reviewed related literature on the factors contributing to poor sanitary conditions in some selected secondary schools. Five research questions were raised to guide the study. Descriptive survey research design was adopted. Data were collected through the use of questionnaire. The instrument was administered to 150 students randomly selected from the 3 selected secondary school and a measure of central tendency and variability was used to analyze the respondents'; responses. The findings of the study revealed that: irregular payment of salaries to cleaners, improper disposal of waste, inadequate handwashing and improper cleaning of the school environment are some of the factors contributing to poor sanitary conditions in some schools. The following recommendations are made based on the findings of the study: schools administrators should ensure that those in charge of cleaning the school environment are adequately monitored. Government should ensure regular payment of cleaners salaries and schools should not be sited in bushy areas as this can become a breeding place for mosquitoes which can be detrimental to the health of the students.

CHAPTER ONE

INTRODUCTION

Background to the Study

Nigeria has been referred as low in respect of global development indication such as water resources, sanitation coverage, poverty and life expectancy (Federal Republic of Nigeria, 2007). Sanitation according to UNICEF (2008) is the principle of hygienic condition in the environment to promote public health and ensure sustainable development. It involves a range of interventions designed to improve the management of excreta, sludge, drainage and solid waste. Environmental sanitation also entails awareness of and capacity for managing all waste on rural, sub-urban and urban areas. A clean and healthy environment is important for the reduction of sanitation related disease preventable deaths, increase economic productivity, poverty reduction and sustainable environment.

However, if environmental sanitation does not receive adequate attention there would be increase sanitation related disasters mortality and devastating economy will be the sequel.

According to Single (2008), the importance of sanitation to any community or schools cannot be overemphasized. It is a way of controlling disease and disposal of refuse in the proper way. Government and individual on their own have tried to improve the environmental sanitation, but this has given them a lot of problem to contend with. Infact, the cities are filled up with filthy materials while the rubbish and garbage in the dustbin are not cleared on time, and this makes the environment so dirty that people who find themselves living in those areas are caught in a web. There are poor storage facilities, inefficient collection and removal from our homes and schools to the depot e.t.c. this has resulted in various health hazards such as air pollution, water pollution and land pollution.

The sanitary condition of environment has become an issue of serious concern to Nigerians, especially with migration of people from rural to urban centres. The problem of environmental sanitation is essentially that of the individuals or family but without the government interference, there is bound to be indiscriminate dumping of refuse in our street, roads and open spaces. In the past, government agencies have typically built sanitation infrastructure, but sanitation professional are now concentrating on helping

people improve their own sanitation and to change their behaviour (Alabi, 2010).

The role of environmental sanitation in relation to development cannot be over-emphasized, the environment determines to a larger extent, the quality of life of the citizens of a nation. The citizen particularly the student is the building block. We all know that health is an essential factor that promotes learning. The maintenance of clean and healthy environment capable of promoting health and preventing disease especially in urban areas where most secondary schools are located (Anunonwu, Amadi, Nwankwo, Nnadozie, Oguejofor & Nwoga, 2009).

The United Nations committee on Economic social and cultural rights clarified in 2002 that right to water emanates from right to an adequate standard of living including food, housing and clothing. Provide adequate levels of water supply, sanitation and hygiene in schools is of direct relevance to the United Nation Millennium Development goals of achieving the aim of the school, promoting gender equality and reducing child mortality.

Providing the required sanitation facilities will not only lead to the enjoyment of human rights, but will also contribute to improved development outcomes and over all living standards. An estimated 5,000 children die from diarrheas every day, and average of 12 percent of national health budgets in sub-Saharan African countries (UN, 2008). It is estimated that 88% of diarrheas disease is caused by unsafe water supply, inadequate sanitation and hygiene (WHO, 2009) lack of toilet in schools increases the number of students absence, and worker productivity also suffers through widespread disease and illness (UNICEF, 2006). More basically, being forced to defecate in public is an affront to human dignity, infant deaths, lost works days and missed schools and are estimated to have an economic cost of around 20-38billion per year and proper sanitation is considered to be superior to antibiotics vaccines and anesthesia (WHO 2009).

Statement of the Problem

Poor sanitation condition in secondary schools in Ikpoba Okha local government area of Edo State, has been a problem to the wellbeing of students. The problem has persisted in spite of the enlightenment toward the

danger of poor sanitation in school environment. The extent of the condition in schools is only rarely investigated. This research work therefore is meant to fill the menace of environmental pollution. Investment in environmental safety is a serious issue, which needs immediate attention in order to reduce the spread of diseases among students in schools. It is therefore proper and appropriate to ensure that all sanitary facilities in the school meant for sanitation should be put to use to reduce poor sanitary condition in schools in Ikpoba- Okha local government area of Edo State.

Research Question

1. What are the factors contributing to poor sanitary conditions among students in Ikpoba Okha local government area of Edo state?
2. What kind of sanitation practices are held in schools in Ikpoba Okha local government area of Edo state?
3. What is the relationship between sanitation and health status of secondary school students in Ikpoba Okha local government area of Edo state?
4. Does sanitation have effect on secondary school students in Ikpoba Okha local government area of Edo state?

5. What is the status of sanitation facilities in schools among students of Ikpoba Okha local government area of Edo state?

Purpose of the Study

The immediate objective or short term goals which this paper has been specifically design to achieve is stated below.

1. To examine the factors contributing to poor sanitary conditions among students of Ikpoba Okha local government area of Edo state.
2. To examine the kind of sanitation practices held in schools in Ikpoba Okha local government area of Edo state.
3. To investigate the relationship between sanitation and health status of secondary school students in Ikpoba Okha local government area of Edo state.
4. To examine the effect of sanitation on secondary school students in Ikpoba Okha local government area of Edo state.
5. To examine the status of sanitation facilities in schools among students of Ikpoba Okha local government area of Edo state.

Significance of the Study

The study will be significant to teachers and principals as they have contact with the students, it will also be significant to society and government as they are in the best position to take decision on behalf of the students. And this study will enable the government to understand the importance of sanitation on resolving the factors contributing to poor sanitary condition in schools.

Scope/Delimitation of the Study

This study will be carried out in Ikpoba Okha local government area in Edo state. Edo State is one of the states in south-south region of Nigeria. The state is divided into three senatorial Zones with 18 local government areas. This study will survey three secondary schools in Ikpoba Okha local government area i.e. Ugiomo Secondary School, Itohan Girls Grammar School and Im8aguero College.

Limitation of the Study

Insufficient funds tend to impede the efficiency of the researcher in researching for the relevant materials, literature or information. Time

constraint; the researcher will simultaneously engage in this study with other work. This consequently will cut down on the time devoted for the research work.

Definition of Terms

The following definition of terms are used in the study and how it is applicable to the research;

1. **Sanitation:** Sanitation is the hygiene means of promoting health through prevention of human contact with the hazards of waste as well as the treatment and proper disposal of sewage or waste-water.
2. **Health Status:** Health status is a holistic concept that is determined by more than the presence or absence of any disease. As seen by bloom's theory. The Bloom theory states that the health status is a product of the environment that individual lives in plus the available health services plus the background.
3. **The secondary School:** secondary school is a term used to describe an educational institution where the final stage of compulsory schooling takes place it is the intermediate in level between

elementary school and college and that usually general, technical, vocational or college preparatory curricula.

4. **Condition:** the state of something with regard to its appearance, quality, or working order; have a significant influence on or determine (the manner or outcome of something).
5. **Poor:** lacking sufficient items or money to live at a standard considered comfortable or normal in a society.
6. **Disposal:** the action or process of getting rid of something.
7. **Refuse disposal:** system, technique for the collection, treatment, and disposal of the solid wastes of a community. The development and operation of these systems is often called solid-waste management.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews what experts and researchers have said concerning this topic. This chapter will be reviewed under the following sub-headings.

1. Concept of sanitation
2. Brief history of sanitation
3. Effects of school sanitation on student
4. Effect of poor sanitation on the school environment
5. Health impacts of poor sanitation
6. Improving school sanitation
7. Challenges in improving sanitation standard in School
8. Socio-economic impact of poor sanitation
9. Sanitation and health status of students
10. Summary of Literature Reviewed

Concept of Sanitation

Sanitation is basically a hygienic disposal or recycling of waste, it also is considered as a practice that allows protection of health with the help of hygienic measures (UNESCO. 2003). It is also commonly understood as a term that is used for treatment of waste in its original form. “Sanitation” is understood to mean “the promotion of hygiene and prevention of disease by maintenance of sanitary conditions”. In the nineteenth century the term “sanitary” was understood to mean something “relating to health, or relating to or used in the disposal of domestic waterborne waste” (Merriam-Websters Collegiate Dictionary. 2003) (Sinha and Menon. 1999). The 1999 protocol on water and health to the 1992 convention on the protection and use of trans-boundary watercourses and international lakes defined sanitation as "the collection, transport, treatment and disposal or reuse of human excreta or domestic water-waste, whether through collective systems or by installation, serving a single household or undertaking”. This understanding of the term includes not only the removal of waste from direct contact with human beings, but also its treatment and possible safe reuse (Alabi, 2010).

According to the World Health Organization (WHO, 2013), a decent toilet or latrine is an unknown luxury to half of the people on earth. Almost 3 billion individuals do not have access to a decent toilet, and many of them

are forced to defecate on the bare ground or queue up to pay for the use of a filthy latrine (UNICEF, 2001). Neglect of sanitation exposes peoples to unhygienic conditions which leads to dangerous diseases especially diarrhea. The earth summit conference (UNICEF, 2008) found diarrhea is the biggest child-killer on earth, taking the lives of 2,2 million children each year. The diarrhea episodes leave millions more children underweight mentally and physically stunted. Children become easy prey for the deadly diseases and so drained of energy that they are ill-equipped for the primary task of childhood, which is learning.

Brief History of Sanitation

Sanitation dates back to the ancient civilization of the Hindus, Jews Romans and has been undergoing series of improvement over the centuries (Single, 2008). In early times especially in the African setting, diseases were tied to the activities of evil spirits and other Myths. However, in 1932 cholera episode cleansed 20,000 lives in France, although the transmission of the water born-disease passed unnoticed until the 1850s (Park, 2011). He asserted that law established in 1844 to authorize the police to handle health and street clearing exercise which were effective in France. Root gutters

were channeled to street gutters and even Louis pastures dumped sewage into the sea. These practices were adopted in order to minimize the hazardous effect of waste on human health (Isah E.C. & Okojie O.H. 2007). According to Williams M. (2006), Florence Nightingale was able to convince the world on the necessity of improving hygiene and sanitation after her observation of poor sanitation in the sent and Barrack Hospital during the Crimean war. In 1596, Sir John Harrington, in Britain, invented the water closet which was accepted after 182 years.

Effect of School Sanitation on Student

School sanitation is very significant in the life of student as Anunonwu, (2009) notes that general cleanliness is the foremost requirement for improved sanitation. The floor should be clean, windows washed and walls maintained clean attention should be given to general drainage system, water supply and toilet facilities. World Bank (2005) reports that in most developing countries, the sanitary conditions are often appalling, characterized by the absence of proper functioning water supply, sanitation and hand washing facilities. A report by United Nation International

Children Education Fund (UNICEF) (2006) showed that around 5.4 million youths worldwide do not have access to safe drinking water and use mainly unprotected surface water from rivers, ponds or dams. Findings further revealed that over two million youth did not have access to any kind of toilet facilities. This lack of safe water, poor hygiene practices and lack of sanitation services were reported to be major causes of mobility among students. Inadequate access to safe water and sanitation coupled with poor hygiene particles kill and sicken thousands of people every day and lead to improvement and diminished opportunities for thousands more. When it comes to schools, the World Bank (2005) warns schools that lack access to basic water supply and sanitation services will have an increased incidence of major illness among students. Poor health is an important underlying factor for low school enrollment, absenteeism, poor classroom performance and early school dropout.

The state of environmental report (2002) concurs with the above as its report that sanitation related disease like malaria, diarrheas, worm infection, eye infection and skin disease account for roughly half of the entire outpatient visits in the country and the major cause of mortality and mobility.

Medical centres can clearly affirm this to those centres that keep on receiving sick students., the common disease treated is malaria since stagnant water which is a breeding ground for mosquitoes is a part of the school compound and this is all because of poor sanitation. Directorate of Education standards (DES) reported that schools in Edo State lack hand washing facilities, inadequate toilet, poor drainage system and lacked safe water for drinking. Ikpoba Okha particularly study found out that sanitation in schools was very poor. There was no evidence of regular clearing and schools did not have cleaning materials mostly when the urinals were blocked and learners were forced to use outside the urinals and a sight of stagnant urine was common in most schools. it was however not clear whether the sanitation prevailed in other local government.

Once sanitation is sub-standard students are likely to spend more time in health facilities. This therefore makes the environment unsafe places where disease are transmitted with mutually reinforcing negative impacts. In this regard Ddingu (2001) study pointed out those poor sanitary condition in which people become accustomed to poor hygiene is dangerous to the psychological upbringing and the learning process of student. Njoku's (2012)

study that aimed at investigating the conditions affecting quality living and successful learning revealed that a clean environment allows students time to concentrate on reading books usually in silent environment. These revelations were later confirmed by UNICEF (2006) which reiterated that good sanitation and hygiene standards have an influence on growth and development of student's school attendance and the rate of school dropout.

Effect of Poor Sanitation on the School Environment

According to United Nation Economic and Social Council, 2006 societal growth is evidence by an increase in its economic and developmental activities which are marked by production and consumption patterns. These activities are height tented by improved standards of living and commercialization levels resulting in increasing waste generation.

The failure to focus on the issue of waste generation and its impact on the student has resulted to changing solid waste management as one of the compelling problem of urban Environmental degradation. Waste generation has been classified as municipal solid waste (including plastic waste),

construction and demolition waste, hazardous solid waste, biomedical waste and electronic waste (Nigeria Journal of Health Education, June 2012).

Invariably, improperly disposed human wastes result to poor sanitation with its attendant effects. According to Ferriman A (2007), poor sanitation has negative impact on the environment, the volume of excreta produced is between 69-650g cap/day while urine production is from 845-12g/cap/day. In Africa, about 400g/cap/day of feces and 1200g/cap/day of urine are produced. These products in addition to drainage septic are sludge and other effluent results in unsanitary conditions of the school environment.

Health Impacts of Poor Sanitation

Poor sanitation and communicable diseases are synonymous. According to UNICEF & WHO (2004), A number of gastro-intestinal health problems results from unsanitary conditions of the environment. One gram of human feces harbour about 10,000,000 viruses, 1000000 bacteria, 1000 parasite cyst and 100 parasite eggs, many pathogenic organisms are transmitted through improper sanitation and poor hygiene practice. Some of these pathogens include vibrio-cholera, Escherichia coli (e-coli), salmonella,

shigella, polio-viruses, hepatitis A, Entamoeba, Giardial, ancylostoma and ascaris. These organisms cause wide range of intestinal disorder in humans.

Most hospital bed globally is occupied by patient plagued by one form of intestinal infection or the other. In the developing countries, more than 2.2 million people die annually due to disease connected poor water and sanitary condition (WHO & UNICEF 2004).

Several studies have been done to show the relationship between poor sanitary conditions and the incidence of water borne diseases. In a study conducted by Alabi J.O. (2010), data were collected on the diarrheas risk factors in a large market in Ibadan and related it with knowledge attitude and practice of the mothers who were traders in the markets. The results reverted that poor sanitation and hygiene were the contributory factors.

Another study was carried out in Shum of North Jakarta where drainage and standing water are major problems. The findings revealed that occurrence of diarrhea was 342 episode per 1000 population. The pesky incidence is during the raining session which affects students from six to 12 months. The alliance observed that of more than 120 million school aged

student who do not go to school, 35% are from sub-Saharan Africa. Poor hygiene, sanitation and water, increase poverty by causing a reduction in productivity and increasing health care costs.

Improving School Sanitation

In order to reduce the effects of poor environmental sanitation certain measures have to be placed and improved upon. Esrey and Huttly (1997), opined that hygiene behaviour risks include exercise disposal, use and maintenance of toilets, lack of hand washing with soap or its alternative, unhygienic preparation and storage of food. They also further reported that several studies in different parts of the world in daycare centers and in communities indicated that frequent hand washing, with or without soap, result in lesser incidence of diarrheas. Another study in Karachi, Pakistan reported that student who practices an improved hand washing with soap had a 50% lower incidence of pneumonias than student in the control areas (United Nations Economic and Social Council, 2006).

Having access to safe water and sanitary facilities as well as better hygiene practice can reduce morbidity rates of water related disease (UNICEF)

1999a: United Nation Economic and Social Council, 2006). Improvement in drinking water quality thorough household water treatment can reduce diarrheas episodes. They added that hygiene promotion as a strategy should entail a dialogue with the school authorities about hygiene and related health problems. They should be educated on proper hand washing with soap, latrine management and disposal of waters.

Challenges in Improving Sanitation Standard in Schools

Environmental sanitation in schools is generally poor as most schools lack potable water and adequate waste disposal facilities. most schools are poorly overcrowded without proper ventilation and are sited in areas that are noisy and hazardous due to road and human traffic.

Most Africa countries are poor in meeting the standards of sanitation in sub-Saharan country including Nigeria, estimated of one in two people have no access to improved sanitation (Marshal 2004). According to him, Nigeria and the Democratic Republic of Congo are one of the region, water and sanitation deprived people. Generally, we added that there is chronic water shortage in developing countries.

Adedipo (2000), stated that the cost of sanitation is high water related. sanitation require huge suppliers of fresh water to transport human. water may not be affordable by many. Most culture practices do not permit improved sanitation.

Socio–Economic Impact of Poor Sanitation

Most students miss school because they are busy fetching water or are sick from water related disease. According to Gender and Water Alliance (2006). Some girls who are at the age of menarche are often reluctant to stay in school when there is no privacy in toilet and washing facilities. The Alliance observed that of more than 120 million school aged student who do not go to school, 135% are from sub-Saharan Africa. Poor hygiene sanitation and water increase poverty by causing a reduction in productivity and increasing health care costs.

Sanitation and Health Status of Students

Currently, some estimated 884 million worldwide lack access to improved water supply and 2.6 billion people lack access to improved sanitation (WHO/UNICEF 2010). An estimated 2 million people die every

year due to diarrheal diseases. Most of the children are less than 5 years of age. Among the main problems responsible for this situation are: lack of priority given to the sector, lack of financial resources, lack of sustainability of water supply and sanitation services, poor hygiene behaviour and inadequate sanitation in public places including hospitals, health centres and school. Providing access to sufficient quantities of safe water, the provision of facilities for a sanitary disposal of excreta, and introducing sound hygiene behavior are of capital importance to reduce the burden of disease caused by their risk factor (WHO 2010).

In most developing countries perhaps most easily discernible in the poorest countries, unclean water and poor sanitation exposes billions of men, women and children to a plethora of disease that debilitate them and greatly reduce their productivity, these diseases even hasten the death of those with compromised immune system such as small children, the malnourished and HIV/AIDS patients.

Improved sanitation has significant impacts not only on health, but on social and economic development particularly in developing countries. The

health sector has a strong role to play in improving sanitation in developing countries through policy development and the implementation of sanitation programmes.

Drawing on data from 54 low- and middle income countries, the WHO/UNICEF report concludes that 38% lack access to even rudimentary levels of water, 19% lack sanitation and 35% do not have water and soap for hand washing.

October 15, 2008 was the first ever global hand washing day, the United Nations has gotten into the promotion of hand washing. Hand washing is one of the most effective ways to prevent diarrheal diseases and pneumonias which are responsible for the death of about 3.5 million children worldwide.

The Centers of Disease Control (CDC) say hand washing is the single most important thing we can do to keep from getting sick and spreading illness. Proper hand washing can help eliminate the spread of this common cold, the flu, stomach upset, diarrhea, hepatitis A, SARs, flood borne and pneumonia.

According to Duran-Naruck, (2008) in study on student assessment of the condition of school sanitation facilities in New York, revealed that the condition of school sanitation facilities determines student's academic success and school attendants. Thus, most parents often withdraw their children from a school with poor school sanitation facilities where privacy and dignity is virtuality absent. Access to sanitation facilities in school is a fundamental right that safeguards health and human dignity. Thus providing these facilities in schools does not only help to meet the right, but also provide the favourable settings to encourage positive behavior in school. (FMOE, 2006).

In 2001, the Federal Ministry of Health (FMOH) and the Federal Ministry of Education (FMOE) in collaboration with the World Health Organization (WHO) conduct a rapid assessment of school health system in Nigeria to ascertain the status of school. The assessment revealed several problems among learners which include lack of health and sanitation facilities. This called for the urgent attention in school health. The study also indicate that 30% of student have low body max index (BMI) and the common health problems of students which contributes to absenteeism and

low performance of student include typhoid, headache, stomach ache, cough/catarrh and malaria. (FMOE, 2006).

It is as a result of this that the Federal Ministry of Education (FMOE) in conjunction with UNICEF support, designed and launched the National School Health Policy (NSHP) in 2006/2007 to form a true synergy to deal with health problems at school. By this policy, one of the provisions of dealing with common communicable diseases affecting student's performance and absenteeism in a school system is by providing gender sensitive sanitary toilet facilities in the ratio 1:30 pupils by management/owner of schools.

A visit to most schools, especially public schools would reveal serious concern about the school environment where students learn some of which lack or characterized with inadequate toilet facilities (Weidner 2009, Weder et al. 2003, UN-water decade programme 2007) provision of toilet facilities is considered a privilege rather than a necessity by most school authorities, which may affect school programmers' failing in their roles to address health issues of the students but rather concentrating on the facilities has its health

implications, some of these may be bacterial, viral and parasitic in origin such as typhoid and paratyphoid fever, dysenteries, diarrheas, cholera, hookworm, abstains, viral hepatitis, schistosomiasis, guinea worm disease, genitourinary tract infection and a host of others intestinal and parasitic infection or even eye infection like trachoma (caused by Chlamydia trachoma in which is caused by flies that breed in dirty environment which may lead to blindness, which can occur due to environmental pollution as a result of indiscriminate disposal of human excreta and inadequate sanitation. This study aimed at assessing the quality of toilet facilities in secondary schools.

Access to sanitation facilities is a fundamental human right that safeguards health and human dignity. Therefore, the provision of safe water and sanitation facilities is a first step towards a healthy physical learning environment. The ultimate goal is for all people to have safe and adequate water and sanitation, and a clean and healthy environment.

The sanitary conditions of schools in rural and urban areas in developing countries such as Nigeria are often appalling, creating health hazards and other negative impacts, making schools unsafe for students.

Although water and sanitation facilities are recognized as fundamental for hygiene Behaviour and student's well-being, in practice the sanitary conditions in most schools are woefully inadequate (UNICEF, 2001). Diseases related to poor sanitation condition and water availability caused many students to fall ill or even die. Students are the most vulnerable to these health hazards.

Waterkeyn, J. & Cairncross, S. (2005), indicate that one of the major problems faced by hundreds of millions school aged children is infection by parasites and flukes. These parasites consume nutrients from children they infect, and bring about aggravating malnutrition and retarding the children physical development. They also destroy tissues and organs in which they live causing pain and various health problems. Water and sanitation related diseases affecting students include diarrhea, trachoma, schistosomiasis, scabies and guinea worm. All of these have compromised student's attendance and performance at school and not-uncommonly, can result in death.

The UNICEF (2001), outlines the benefits of good school sanitation facilities as follows: School can stimulate and support positive behavioral change in students, as students are eager to learn. Children have important

roles in household chores related to hygiene. Depending on the culture, children may question the existing practices in the household and become agents of change within their families and communities. Children are future parents, what they learn at school is likely to be passed on to their own children. Lack of facilities and poor hygiene affect both girls and Boys, although poor sanitation conditions at school have a greater negative impact on girls. Therefore, all girls should have access to safe, separate and private sanitation facilities in their schools (UNICEF. 2001). When a girl start menstruating, the need for these facilities is even stronger. Sanitation facilities should be adapted to the different physical and sometimes cultural needs of girls and Boys. When other family members become sick (often due to sanitation related diseases), girls are more likely to be kept at home to help. This can lead to reduced school attendance by girls, and can result in an increase dropout rates.

Summary of Literature Review

Sanitation is regarded as the maintenance of sanitary conditions, therefore, basic sanitation means the provision of sufficient hygienic, hazard-free toilets, the effective removal and disposal of household waste, and effective effluent disposal (Pietersen. 2007) Good sanitation is important

for a number of reasons, not least of all human dignity. Poor sanitation has impact on various areas of social development.

Poor sanitary condition in some selected secondary schools in Ikpoba Okha local government area of Edo state has negative effects on student's hygiene because "Sanitation" is understood to mean "the promotion of hygiene and prevention of disease by maintenance of sanitary conditions".

Sanitation is vital for good health. Health problems associated with poor sanitation include diarrhea, dysentery, typhoid, cholera, malaria, bilharzias, worm infestations, eye infections, and skin diseases. Sanitation is also vital for wealth creation. Economic benefits of improved sanitation include savings in health costs, higher worker productivity, better school attendance, improved tourism and reduced water treatment costs (RSA. 20001).

Contributing in sanitation services is a key element in improving urban living conditions, spurring rural development and reducing future costs associated with pollution, poor water quality and waste management.

The following recommendations of the planning commission in the 10th five-year plan should be accepted in implementation of the rural

sanitation programme successfully as suggested in this literature review

CHAPER THREE

METHOD OF THE STUDY

This chapter describes the method employed for this study under the following sub-headings.

Research Design

Population of the Study

Sample and Sampling Techniques

Research Instrument

Validity of the Instrument

Reliability of the Instrument

Method of Data Collection

Method of Data Analysis

Research Design

The research design used in the study was a descriptive survey research design. Nwogu (2006); Omorogiuwa (2006) stated that a survey research design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representatives of the entire group.

Population of the Study

The population of the study constitutes the fourteen (14) public secondary schools in Ikpoba Okha local government area of Edo State. (Edo State Ministry of Education, 2017).

Sample and Sampling Technique

The sample size of the study constituted three secondary schools out of the fourteen secondary schools using simple random sampling technique. From the three (3) sampled schools 150 students (50 from each school) were selected as respondents using the convenient sampling technique.

Name of School	Number of Respondents
Itohan Girls Grammar School	50
Ugiomo Secondary School	50
Imaguero College	50
Total	150

Research Instrument

The instrument that was used for the collection of data was a questionnaire, Titled factors contributing to poor sanitary conditions in some selected secondary schools in Ikpoba Okha Local Government Area, comprising section A and section B. Section A comprised the demography of the school and section B is constructed upon two responses scale Yes () or No () which the respondents (students) are to respond.

Validity of the Instrument

The questionnaire was given to the supervisor and two other experts in the Department of Health, Safety and Environmental Education for validation. Their corrections were inputted in the final draft of the instrument.

Reliability of the Instrument

The reliability of the instrument was established using the test re-test reliability method. Twenty copies of the questionnaires was administered to the students of the sampled schools twice within an interval of two weeks. Thereafter, the scores was subjected to Pearson Product Movement Correlation method and it yielded 0.71 which is an acceptable level of reliability. Hence, the instrument were considered reliable.

Method of Data Collection

The questionnaire was administered to the respondents personally by the researcher. The researcher guided the respondents on how to answer the questionnaire. The instrument was collected from the respondents immediately by the researcher after they had given their responses.

Method of Data Analysis

The method of data analysis that was used to collate the result gotten, was percentages (%) and frequency tables.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter examines the analysis and interpretation of data collected for this research work. A total number of 150 questionnaires were administered, while 148 were duly filled and returned, and in course of analysis 3 of the questionnaires were damaged and only 145 questionnaires were used for the analysis of this study and these shall provide analysis of individual responses.

SECTION A: DEMOGRAPHIC INFORMATION

TABLE 1 – DISTRIBUTION OF RESPONDENTS ACCORDING TO SEX

sex	Respondents	Percentage (%)
Male	48	33.1
Female	97	66.9
Total	145	100

Source: Field Survey, 2018

From the above analysis, 33.1%, which represent (48) respondents are male, while 97, respondents representing 66.9% are female.

TABLE 2 -- DISTRIBUTION OF THE RESPONDENTS ACCORDING TO AGE

Variables	Respondents	Percentage (%)
10 - 12 years	58	40.0
12 - 13 years	49	33.8
13 – 15 years	22	15.2
15-17 years	16	11.0
Total	145	100

Source: Field Survey, 2018

Table 2 indicates that 58 respondents, with 40.0% are of the age range 10-12, and 49 respondents, representing 33.8% are within the age range 12-13, also, 22 respondents (15.2%) are between age 13-15, and 16 (11.0%) of the respondents aged 15-17 years.

TABLE 3 – DISTRIBUTION OF RESPONDENTS ACCORDING TO EDUCATIONAL BACKGROUND

Variables	Respondents	Percentage (%)
JSS1-JSS 3	101	69.7
SS1-SS3	44	22.3
Total	145	100

Source: Field Survey, 2018

In Table 3 above, 101 of the respondents, representing 69.7% are of JSS1-JSS3 classes, while 44 respondents presenting 22.3% respondents are of SS1-SS3.

TABLE 4. ANALYSIS OF RESEARCH QUESTIONS

TABLE 4: FACTORS CONTRIBUTING TO POOR SANITARY CONDITIONS?

S/N	ITEMS	YES	%	NO	%	TOTAL RESP.	TOTAL %
1	Does irregular washing of the toilet contribute to poor sanitary condition in your school?	135	93.1	10	6.9	145	100
2	Does irregular payment of salary to cleaners a major factor contributing to poor sanitary conditions in your school?	131	90.3	14	9.7	145	100
3.	Does improper disposal of human wastes contribute to poor sanitary condition in your school?	145	100	-	-	145	100
4.	Do inadequate hand washing contribute to poor sanitary condition in your school	138	95.2	7	4.8	145	100
5.	Does improper cleaning of the school environment reduce the risk of the student health status?	99	68.3	46	31.7	145	100

Source: Field Survey, 2018

From the above table, 135 with 93.1% of the respondents agreed that irregular washing of the toilet contribute to poor sanitary condition in their school, while 6.9% think otherwise. Also, majority of the respondents constituting 90.3% representing (131) agreed irregular payment of salary to cleaners is a major factor contributing to poor sanitary conditions in their school while 14 (9.7%) of the respondents disagreed with the term. Also 100% of the respondents, represent the whole respondents agreed that improper disposal of human wastes contribute to poor sanitary condition in their school. In the same vein, 138 of the respondents, representing 95.2% agreed that inadequate hand washing contribute to poor sanitary condition in their school while 7 respondents with 4.8% thinks otherwise. Moreso, 68.3% of the respondents are of the view that improper cleaning of the school environment does not reduce the risk of the student health status, while the remaining 31.7% of the respondents where indifferent.

TABLE 5: SANITATION PRACTICES HELD IN SCHOOLS

S/N	ITEMS	YES	%	NO	%	TOTAL RESP.	TOTAL %
6.	Is the use of toilet facilities a common sanitation practices in your school?	101	69.7	44	30.3	145	100
7.	Is hand washing a common sanitation practices in your school?	60	64.8	85	35.2	145	100
8.	Do student know that sanitation influence their health in your school?	72	49.7	73	50.3	145	100
9.	Are the students aware of sanitation practices in your school?	115	79.3	30	20.7	190	100
10	Does general cleanliness a foremost requirement for improved sanitation in you school?ll	143	98.6	2	1.4	145	100

Source: Field Survey, 2018

From the above table, in question 6, 69.7% of the respondents agreed that the use of toilet facilities is a common sanitation practices in their school, while 30.3% think otherwise. Also, 64.8% of the respondents are of the view that hand washing is a common sanitation practices in their school, while 35.2% were indifferent. In the same vein, 49.7% of the respondent

agreed that student know that sanitation influence their health in their school, while 50.3% of the respondents disagree. Moreso, in question 9 which states: are students aware of sanitation practices in their school, 115 with 79.3% of the respondents said yes that students are aware of sanitation practices in school, while 20.7% of the respondents think otherwise. In the same vein, 98.6% of the respondents are of the view that general cleanliness is a foremost requirement for improved sanitation in their school, while 1.4% think otherwise.

TABLE 6: RELATIONSHIP BETWEEN SANITATION AND HEALTH STATUS OF SECONDARY SCHOOL STUDENTS

S/N	QUESTION	YES	%	NO	%	TOTAL RESP.	TOTAL %
11	Do sanitation practices have influence on the health status of students in your school?	102	70.3	43	29.7	145	100
12	Do student know the importance of hand washing in your school?	94	64.8	51	35.2	145	100
13.	Does inadequate access to safe water have effect on the student?	135	93.1	10	6.9	145	100

14.	Is poor sanitation dangerous to the psychological upbringing and the learning process of student health status?	131	90.3	14	9.7	145	100
15	Does poor sanitation have an effect on the growth and development of student's health status?	133	91.7	12	8.3	145	100

Source: Field Survey, 2018

From table 6 above, 70.3% of the respondents says that sanitation practices have influence on the health status of students in their school, while the other 29.7% thinks otherwise. Also, 64.8% of the respondents are of the view that student know the importance of hand washing in their school, while 35.2% were indifferent. Moreso, 135 with 93.1% of the respondents agreed that inadequate access to safe water have effect on the students, while 6.9% think otherwise. In question 13, which states: Is poor sanitation dangerous to the psychological upbringing and the learning process of student health status, 90.3% of the respondents agreed with the term, while 9.7% were indifferent. Also, 91.7% of the respondents are of the view that poor sanitation have an effect on the growth and development of student's health status while 8.3% were indifferent.

TABLE 7: DO SANITATION HAVE EFFECT ON SECONDARY SCHOOL STUDENTS?

S/N	QUESTION	YES	%	NO	%	TOTAL RESP.	TOTAL %
16	Do student know about the effect of poor sanitation in your school?	87	60	58	40	145	100
17.	Do poor sanitation have psychological effect on the student in your school?	115	79.3	30	20.7	190	100
18.	Do poor sanitation have effect on the academic performance of student in your school?	57	39.3	88	60.7	145	100
19.	Do poor sanitation lead to absenteeism of student in you school?	111	76.6	34	23.4	145	100
20.	Do you think poor sanitation lead to illness of students in your school?	133	91.7	12	8.3	145	100

Source: Field Survey, 2018

From table 7 above, in question 16, which states: Do student know about the effect of poor sanitation in their school, 60% of the respondents

agreed with the term, while 40% disagreed. Also, in question 17, which states: Do poor sanitation have psychological effect on the student in your school, 115 with 79.3% of the respondents said yes that poor sanitation have psychological effect on the student in their school, while 20.7% of the respondents think otherwise. In question 18, which states: Do poor sanitation have effect on the academic performance of student in your school, 39.3% says poor sanitation have effect on the academic performance of student in their school, while the other 29.7% thinks otherwise. Also, in question 19, which state: Do poor sanitation lead to absenteeism of student in your school, 76.6% representing 111 respondents, affirmed yes that poor sanitation lead to absenteeism of student in their school, and the remaining 23.4% of the respondents (34) thinks otherwise. Finally in question 20, which states: Do you think poor sanitation lead to illness of students in your school, 91.7% of the respondent represent 133 affirmed yes while 8.3% (12) thinks otherwise.

DISCUSSION OF FINDINGS

The discussion of findings is organized according to the result of each of the research question tested.

Research question 1.

Factors contributing to poor sanitary conditions in schools.

The result of this research question were presented in table 4.

From the analysis, it was discovered that irregular washing of the toilet, irregular payment of salaries to cleaners, improper disposal of waste, inadequate hand washing and improper cleaning of the school environment are some of the factors contributing to poor sanitary conditions in some schools.

The number of respondents indicating that the above mentioned factors are factors contributing to poor sanitary conditions in their schools is a clear indication of such problems.

They agreed that irregular washing of the toilet contribute to poor sanitary conditions in their schools. This findings is in line with the world health organisation (WHO, 2013), that a decent toilet or latrine is an unknown luxury to half of the people on earth. Most students do not have access to decent toilet and many of them are forced to defecate on bare ground. A situation whereby the toilet is not washed daily and flies will be

patching on it can lead to toilet infection most especially to the female students. The students are not ignorant of this problem in their schools.

The students also agreed that irregular payment of salaries to cleaners is a major factor contributing to poor sanitary conditions in their schools. Most of the schools do not have cleaners hence students are forced to do the job of a cleaner thus they are not effective in it.

Also the students agreed that inadequate hand washing contribute to poor sanitary conditions in their schools. Most of the schools lacks hand washing facilities which is a common means of contaminating diseases.

It is an established fact that the students are aware that improper disposal of human wastes contribute to poor sanitary conditions in their schools. There is no provision of dustbin for refuse dump hence students dump refuse in the school field and even in their classrooms.

Finally, the students accepted that improper cleaning of the school environment reduce the risk of the student health status. When the school environment such as bushes, stagnant water etc are not cleared on time it can attract animals like snakes, mosquitoes etc to the school premises which can be detrimental to the health of the students.

Research question 2.

Sanitation practices held in schools.

The result of this research question were presented in table 5.

From the analysis, it was discovered that the students are aware of sanitation practices held in their schools.

The students agreed that the use of toilet facilities is a common sanitation practice in their schools. But due to the fact that the toilet are not washed regularly, some students defecate on the ground /bushes around the school.

The students also agreed that hand washing is not a common sanitation practice in their schools. This finding is in line with the Directorate of Education Standards (DES, 2009) that schools in Edo state lack hand washing facilities, inadequate toilet and safe water for drinking.

Finally, findings revealed that most students do not know that sanitation influences their health and this can be as a result of lack of health education teachers in their schools as most of these schools do not offer health education as a subject.

Research question 3.

Relationship between sanitation and health status of students.

The result of this research question is presented in table 6.

From the analysis, it was discovered that there is a relationship between sanitation and health status of students. The study reveals that sanitation have influenced on the health status of students. According to (WHO 2010) providing access to sufficient quantities of safe water, the provision of facilities for sanitary disposal of excreta, introducing sound hygiene behavior etc are of capital importance to reduce the burden of disease caused by their risk factors. Thus the school environment ought to be clean and free from germs that can influence the health of the students.

Research question 4.

Do sanitation have effect on secondary school students?

The result of this research question is presented in table 7.

From the analysis, it was discovered that sanitation have effect on the students.

Most students are aware of the effect of poor sanitation while others are still ignorant. Most classrooms are overcrowded thus exposing the students to diseases.

The students agreed that poor sanitation have psychological effects on them. This findings is in line with Ferriman A. (2007), that poor sanitation has a negative impact on the environment.

The students also agreed that poor sanitation lead to absenteeism of students from schools. This findings is in line with Gender and Water Alliance (2006) that most students miss school because they are busy fetching water or are sick from water related diseases.

Finally, the students accepted that poor sanitation lead to illness of students in schools. This findings is in line with UNICEF & WHO (2004) that a number of gastro -intestinal health problems results from unsanitary conditions of the environment.

Poor sanitation and communicable diseases are synonymous. Most schools are sited in areas that are noisy, bushy and hazardous due to human and road traffic thus exposing the students to sickness and diseases.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

SUMMARY

This research investigates factors contributing to poor sanitary condition in some selected secondary schools in Ikpoba Okha local government area of Edo State. The study examined poor sanitary condition in secondary schools and how it affects students health and academic performance. The study was introduced in chapter one, a brief analysis on poor sanitary condition in secondary schools and its impact on student health.

The study in its literature review focused attention on the concept of sanitation, sanitation facilities in schools and how it is effectively used, impact of poor sanitation, importance of good sanitation in schools, diseases related to inadequate sanitation etc.

The study which was guided by research questions and questionnaire was designed from the research questions for students. The questionnaire consist of two (2) section A and B. Section A consist of students' personal bio-data and section B comprises of twenty (20) items relevant to the study

which was given to 150 students of the selected secondary schools and the relevant data and percentage was used in the tabulation.

CONCLUSION

Health problem have been a source of concern to man since the creation of earth. Health problem set in when the natural and normal condition of health was disturbed. The unnatural abnormal conditions of ill health are caused by many factors thus this study assessed factors contributing to poor sanitary condition in selected secondary schools in Ikpoba Okha local government area of Edo State. The study has examined the sanitary condition in secondary schools and has established that most of the students in the schools have access to tap water and dispose their refuse regularly. It can therefore be concluded that the sanitary condition in secondary school is moderate although there were still some negative environmental practices like dumping of refuse openly and lack of tidiness in latrines within the schools.

RECOMMENDATIONS

Based on the findings of this study, the following are recommended to enhance the sanitary condition in this study area and even in the state and Nigeria at large:

1. Adequate provision of funds by the government for the procurement of facilities that will enhance proper sanitation.
2. The school management should ensure that those in charge of cleaning the school environment are adequately monitored.
3. Teachers and school authorities should ensure that every classroom have a refuse bin to be deposited at the central refuse bin for total collection.
4. Government or school authorities should distribute polythene (plastic) sacks in which the kind of waste that attracts flies can be put, it mouth tied and later dumped.
5. Government should ensure that schools are not sited in noisy/bushy areas as this can become a breeding place for mosquitoes.

6. Government should ensure regular payment of cleaners salaries.
7. Government/curriculum planners should ensure that health education is taught in every school and should be made compulsory in the West Africa senior school certificate examination. etc.

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APPENDIX

**DEPARTMENT OF HEALTH SAFETY AND ENVIRONMENTAL EDUCATION
FACULTY OF EDUCATION
UNIVERSITY OF BENIN
BENIN CITY**

TOPIC

**FACTORS CONTRIBUTING TO POOR SANITARY CONDITION IN SOME
SELECTED SECONDARY SCHOOLS IN IKPOBA OKHA LOCAL
GOVERNMENT AREA OF EDO STATE.**

Dear Respondent,

I am a final year (600) student of the above named institution and department. I am conducting a research on the above topic and I request that you assist as one of my respondent by providing information on the following questions. This research is strictly for academic purpose and the information supplied will be treated as a confidential one.

Please tick (√) in the column that best suit your opinion.

SECTION A: PERSONAL DATA

1. Age 10-12 [] 12 – 13 [] 13 – 15 [] 15-17 []
2. Sex: Male [] Female []
3. Educational Level: JS1 – JS3 [] SS 1 – SS3 []

SECTION B: GENERAL QUESTION

Research items.

Please, tick [√] the appropriate option to you.

Key: Yes [] No []

S/N	ITEMS	YES	NO
	FACTORS CONTRIBUTING TO POOR SANITARY CONDITIONS		
1.	Does irregular washing of the toilet contribute to poor sanitary condition in your school?		
2.	Does irregular payment of salary to cleaners a major factor contributing to poor sanitary conditions in your school?		
3.	Does improper disposal of human wastes contribute to poor sanitary condition in your school?		
4.	Do inadequate hand washing contribute to poor sanitary condition in your school		
5.	Does improper cleaning of the school environment reduce the risk of the student health status?		

S/N	ITEMS	YES	NO
	SANITATION PRACTICES HELD IN SCHOOLS		
6.	Is the use of toilet facilities a common sanitation practices in your school?		
7.	Is hand washing a common sanitation practices in your school?		
8.	Do student know that sanitation influence their health in your school?		
9.	Are the students aware of sanitation practices in your school?		
10.	Do general cleanliness a foremost requirement for improved sanitation in you school?		

S/N	ITEM	YES	NO
	RELATIONSHIP BETWEEN SANITATION AND HEALTH STATUS OF SECONDARY SCHOOL STUDENTS		
11.	Do sanitation practices have influence on the health status of students in your school?		
12.	Do student know the importance of hand washing in your school?		
13.	Does inadequate access to safe water have effect on the student?		
14.	Is poor sanitation dangerous to the psychological upbringing and the learning process of student health status?		
15.	Does poor sanitation have an effect on the growth and development of student's health status?		

S/N	ITEM	YES	NO
	EFFECT OF POOR SANITATION ON SECONDARY SCHOOL STUDENTS		
16	Do student know about the effect of poor sanitation in your school?		
17.	Do poor sanitation have psychological effect on the student in your school?		

18.	Do poor sanitation have effect on the academic performance of student in your school?		
19.	Do poor sanitation lead to absenteeism of student in you school?		
20.	Do you think poor sanitation lead to illness of students in your school?		