OPEN DEFECATION AND ASSOCIATED TO HEALTH CHALLENGES IN KAURAN NAMODA LOCAL GOVERNMENT ZAMFARA STATE

BY

UMAR MAGAJI
1610207028

(B.Sc SOCIOLOGY)

SEPTEMEER, 2021

OPEN DEFECATION AND ASSOCIATED TO HEALTH CHALLENGES IN KAURAN NAMODA LOCAL GOVERNMENT, ZAMFARA STATE

BY

UMAR MAGAJI
1610207028
(B.Sc. SOCIOLOGY)
DEPARTMENT OF SOCIOLOGY

SEPTEMBER, 2021

TITLE PAGE

OPEN DEFECATION AND ASSOCIATED TO HEALTH CHALLENGES IN KAURAN NAMODA LOCAL GOVERNMENT, ZAMFARA STATE

A PROJECT SUBMITTED TO THE DEPARTMENT OF SOCIOLOGY, FACULTY OF MANAGEMENT AND SOCIAL SCIENCE, FEDERAL UNIVERSITY GUSAU.

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR DEGREE OF SCIENCE IN DEGREE SOCIOLOGY (B.SC. SOCIOLOGY) DEPARTMENT OF SCOCIOLOGY

BY

NAME: UMAR MAGAJI
REGISTRATION NUMBER: 1610207028
DEPARTMENT OF SOCIOLOGY
(B.SC. SOCIOLOGY)

SEPTEMBER, 2021

DECLARATION PAGE

I hereby declare that this project, a report of my undergraduate research work was written by me. I confirm that it has neither been published nor previously submitted to any other institution(s) as requirement(s) for the award of Degree

Sign...

Name....Umar Magaji....................................

Registration No....1610207028.........................

CERTIFICATION

This project by Umar Magaji [1610207028] has met the partial requirement for the award of Bachelor of Science Degree in Sociology, Faculty of Management and Social Sciences, Federal University Gusau, and is approval for submission.

Oluwafemi Tinuola PhD.
(Supervisor)

Sign & Date 20/9/21

Mmahi, Okoro Paul
(Project coordinator)

Sign & Date 25-10-21

Dr Bashir Bello
(Head of department)

Sign & Date 25/10/2021

External Examiner

Sign & Date

DEDICATION

I dedicate this project work to my parents, Late Hajiya Wasila Bawa Dankamassho and Alhaji Magaji Wayau Funtua and my beloved brothers and sisters of Magaji Wayau family.

ACKNOWLEDGEMENTS

All praise be to Almighty Allah for giving me the ability to pursue my education with all efforts. My greatest thanks goes to my Mentor Alhaji Ibrahim Garba (carefor), I will never forget all the efforts, sacrifices and resources you have used in building my educational carrier and to carry out this task successfully. Only God can reward you for all you have done for me. My appreciation also goes to my supervisor Dr. Tinula Femi and Mrs. Obande Elizabeth who has taking the pain to read through my manuscript before the final draft as well as his guidance and directives on carrying out this work. May Allah bless and reward them with good.

My greetings also goes to my best Professor in Nigeria in person Prof. Dejo Abdurrahan of him his teaching is just like a magic to my brain, and my HOD in person of Dr. Bashir Bello of whom at the same time was my counselor and whose advice and suggestion to my academic activities were invaluable.

My greetings also goes to the faculty of management and social science, Fedaral University Gusau, Zamfara state as well as all the entire members and lectures in the department of sociology.

Also, My greetings go to my course mate's and friends such as Yusuf Ibrahim, Shamsu Yahaya, Dougter, Ibrahim, Malam Pharoq, Dangude, Danmalam, Rhoda Aliyu, Mrs. Kaduna, Rukayya Sunusi Yandi, Amenah, Harira, Maryam, Aisha, Obadiah as well as those too numerous to mention, and always shade tears when it comes to my mind that we will be apart this year.

My final greetings also goes to those who holds my hand to this academic endeavors who are always special to me such as Dr. Ugba Dajo, Malam Usman, Paul Okoro, Dajo Ogba, Malam Abdullahi (political science), Malam Anas Anka (History), Prof.

Jimoh Amzat, Prof. Dejo Abdurrahan, Prof. Muhammad T.Y Baba, Prof. Igbo, Prof Ayodele, Prof. Danmoye, Prof. Maliki, Prof. Khaled and Prof. Sadeek Isah Rada.

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

Open defecation OD project is a primarily directed towards "health care research hygiene and sanitation". Open defecation in associated with health challenges in Kaura Namoda local government of Zamfara state useful to set a baseline to state check of program concerning environmental sanitation and hygiene which became one of major problem facing the nations. There is increasing global attention to the threats of open defecation (OD) to human health and dignity, and the environment. With at least a quarter of Nigerians (25.1%) or 46 million people practicing OD in 2015, Nigeria ranks third in the world in OD prevalence after India and China. This study explores the socio-economic, demographic and geographic factors that influence and determine the practice of OD among Nigerian households. Data was obtained from 2013 Nigeria Demographic and Health Survey and analyzed using descriptive and inferential statistics. The article also discusses the implications of the findings for environmental and public health and recommends that facilitating ownership of latrines by households and communities, and behavioral change interventions are necessary towards substantially reducing or eliminating OD in Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Health is a necessity to any given society to develop, there is popular saying that "of all the forms of inequality, injustice in health care is the most shocking and in humane". Thus in the sense of that; the success of any given society depend mainly on how best it takes care of it's healthy population. i.e (health is the engine machine in which the productivity of the population develops and maintain).

According to World Health Organization WHO (2016) linked that 12.6million of the world population yearly dead to the unhealthy environment, also WHO stated that; diarrhea accounts nine percent 9% of the dead of children under five years worldwide, which is essentially as a result of fecal oral diseases where germs are ingested due to contact with infected forces. Open defecation is defined as the practices of defecating in open fields, waterways and open trenches without any proper disposal of human excreta. The term "Open Defecation" is credited to the publications of Joint Monitoring Program (JMP) in 2008, a joint collaboration of World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) to evaluate the global progress on water and sanitation goals (Saleem and Heaslip, 2019).

Although Open defecation been reducing gradually since 2000, the Millennium Development Goals (MDGs) era ended without all countries in sub-Saharan Africa archiving target 7.C., which include reducing by half the proportion of the population without sustainable access to basic sanitation by 2015. Some estimate indicates that, at

the current rate, this can only be archive by the 2026. All sustainable development goal (SDGs) region saw drop in the number of people practicing Open defecation, except for sub-Saharan Africa, where high population growth lead to an increase in Open defecation from 204 million to 220 million, and in Oceania, where the practices increase from one million to 1.3 million.

The information was supported by studies such as Osumanu and Kosoe (2015) which shows that Open defecation in Ghana has increased over the years resulting in several environmentally endemic health problems. people continue to engage in open defecation this practices facilities the transmission of diarrheal diseases one of the leading causes of mortality in children under 5 in sub-Saharan Africa.

According to the latest published data, 122 million people were practicing open defecation (OD) in (WCAR, 2015). This number has increased by 34 million since 2000 as the rate of progress in ending OD was insufficient to account for population growth. WCHR accounts for 14% global OD with eight countries having more than 5 million Open Defecators including Nigeria which ranks second in the world with 47 million. In addition, in 12 of the region's 24 countries, more than 20% of the population practices OD.

Recently, Nigeria is the number one country in Africa with the highest number of people defecating openly beyond India. It was estimated in first October 2019, that over 50 million of Nigerian are defecating in an open place unfortunately, India that is more beyond Nigeria population with at least 1.153 million where improve in open defecation free then Nigeria.

According to (UNICEF,2019) open defecation refers to the practice were by people go out in fields, bushes, forest and other open body of water or other spaces rather than using toilet to defecation.

In 2019, Nigerians President Muhammadu Buhari signed executive 009 to tackle open defecation. In the same year, Nigerian ministry of water in collaboration on with UNICEF and some other key agencies. Eight Nigerian cities are lined up to as the first beneficiaries of far racing structural and urban plans as a result cooperating agreement with UN-habitat.

The plans will improve the quality of water and sanitation in major cities of the state as well as developing waste management for the State. Similarly, in the Zamfara scoping mission, for cities, namely, Gusau, Talata Mafara, Kaura Namoda and Gummi were selected by the government for the city structure plans live in poor sanitation environment and 12% of the household had no form of toilet facility at home does not seem to period occupy by open defecation. In the care of this project works the researcher happen to have survey of Kauran Namoda Local government people of whom practices open defecate as well as those who are not through both methods of collecting data interview and questioner. To access the reason people, choose to defecate in open.

As all the above have been done properly, according to WHO, people will be satisfied with their living condition and improved sanitation extend well beyond reducing the risk of diarrhea and other diseases caused by open defecation, these include:

- Reducing the spread of intestinal worms, schistosomiasis and trachoma which are neglected tropical diseases that carried sufferings for millions.
- Reducing the severity and impact of malnutrition.
- Promoting dignity and boosting safety particularity among women and girls.
- Promoting school attendance: girls school attendance is particularly boosted by the provision of separate sanitary facilities and
- Potentially recovery of water renewable energy and nutrients from faecal waste.

Open defecation, the act of passing excreta in open air location instead of in hygienic, covered locations the phenomenon does not just occur in the rural areas of the Nigeria but also in the cities, and other among the educational class in public tertiary institutions, business residential areas. Over 47 million of Nigerians defecate openly in bushes, gutters, sidewalks, motor parks, recreation parks, rivers and street among others.

Lunched the initiative target Nigeria Open Defecation free by 2025: a national road map 'in order to end inimical practices by 2025. Apart from bringing a social stigma to Nigeria, which is touched as the giant of Africa and the most populous black nation in the world, op also possess obvious environmental, health and economic problems for Nigeria and it nationals. It pollutes the environment and exposes children and adults to critical health problems like diarrhea (hence leading to untimely deaths).

1.2 Statement of the Problem

Open defecation has become one of the major problem leading public health problems in Nigeria. According to WHO (2019) reports that 1.8 million people in low and middle income countries suffer from severe trachoma, a root cause of visual impairment which is

transmitted via flies that brood on human excretes with a tendency to spread through eye discharge of infected person. Likewise, more than 200 million People are infected with Schistosomiasis (snail fever) worldwide, a chronic parasitic diseases transmitted through human feces to freshwater snails and the infections spread in humans.

Open defecation is an issue that can affect everyone but women are often at more risk of experiencing violence and multiple health vulnerabilities. In Nigeria for example, the United Nations Children's Fund (UNICEF, 2019), in May 2019, has said not less than 47 million Nigerians still indulge in open defecation in the water sanitation and hygiene (WASH) specialist of UNICEF, Bioye Ogunjobi, said this in Kano on Wednesday at the opening of a two-day media dialogue organized by the ministry of information and culture in collaboration with UNICEF. Despite efforts made at the local and tackling, for instance, international level to reduce problem of open defecation in Nigeria. The problem is yet to be tackled. Open defecation field and the dialogue which is entitled "clean Nigeria", will be engaging and enlightening people on the implication of open defecation and WASH related issues, despite of all these efforts. Record has shown that "forty-seven million people in Nigeria are still practicing open defecation. And "clean Nigeria; use the toilet", is a campaign by UNICEF to ensure that Nigeria is clean through the use of toilet, in general and Kaura Namoda in particular it's against this background that this study was conducted to examined public health care and challenges of open defecation to health in Kaura Namoda local government area of Zamfara.

Research Question

i. What is the rate of open defecation in Kaura Namoda?

ii. What are the causes of Open defecation?

iii. What are the health challenges caused by open defecation?

iv. What are the possible solutions to end open defecation?

1.3 Objectives of the Study

i. To examine the rate of Open defecation in Kauran Namoda local government.

ii. To identify the causes of Open defecation.

iii. To explore the health challenges caused by open defecation.

iv. To recommend possible solutions of Open defecation.

1.4 Scope of the Study

The scope of this study covers only Kaura Namoda local government area and the research deals with how open defecation affects health care, causes of open defecation, the rate of open defecation, and the explore possible solution to end open defecation in Kaura Namoda Local Government Area.

The geographical scope of the study is Kaura Namoda which cover the; following words: Dan Isah, Shiyar Siba/ primary school Ruwan Kura, Babban fili, Mai lalle and J/kasa. The time research cover 2008-2021. The choice of this time scope is because of the publishing of Joint Monitoring Program (JMP) in 2008, a joint in collaboration of World Health Organization WHO and United Nation International Children's Emergency Found UNICEF, and All Millennium Development Goals MDGs to evaluate the global program on water sanitation goals.

1.5 Signification of the Study

In view of the above the study will surely help the environment to develop health policies in order to fight against open defecation that will help to save the children and women who are most susceptible to infection from poor sanitation and hygiene with its attendant negative effects to the community.

The research work is also help to educate people who are defecating in open to know its consequences to the health, and create awareness among the population corncerning their health on environmental sanitation in Kauran Namoda local government area. And the study will also be significance to policy formulators and executors regarding the effectiveness of the child and women health care services in reducing Open defecation in Kauran Namoda local government area. The study also help government and international agencies to know the rate of Open defecation and outline possible solution to the menace in Kauran Namoda Local government Area, and also help for further research.

1.6 Operational Definition of Terms

i. Open defecation: open defecation refers to the practices of defecating in fields, forest, bushes, bodies of water and other open spaces.

ii. Health: health is a resources for everyday life, not the objectives of living, it's positive concept, emphasizing social and personal resource, as well as physical capacities.

iii. Health Challenges: is develop appraisal skills to lead an occupational health team at senior level.

iv. 4. Hygiene: Hygiene is defined as conditions or practices conducive to maintaining health and preventing disease

Open defecation is conceived by UNICEF (2018) as the practice of people going out "in fields, bushes, forests, open bodies of water or other open spaces, rather than using the toilet to defecate." Although common in India, where 521 million people or nearly half the country's population, are involved, Nigeria is one of the top three countries in the world whose citizens are steeped in the practice. It's a problem that kills millions of people each year and afflicts many more with disease. The factors that affect open defecation can include; sociocultural and economic factors determining Open Defecation in the Kauran Namadu local government.

Nigeria's age-old culture of open defecation has stubbornly held away in many parts of the country, in spite of the rapid urbanization being witnessed across the land. It is a mark of bad governance that a practice that should rightly belong to the past is still in the ascendancy, despite the havoc it wreaks on the society. Health experts say three factors are responsible for widespread Open Defecation: poverty, lack of lavatories and ingrained cultural norm, which makes the practice socially accepted in some parts of the society. While state governments should persuasively get communities to understand the health and economic consequences of defecating outside, there is also the need to coerce communities to stop open defecation, by adopting methods and passing laws that are more stringent and have a top-down approach.

2.2.2 Prevalence of Open Defecation in Nigeria.

Open defecation remains a critical health challenge globally, affecting almost 1 billion people worldwide and contributing significantly to an estimated 842,000 people who die yearly from sanitation-related diseases. Open defecation is a major environmental health

CHAPTER TWO

LITERATURE RIVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter is concerned with the literature review and theoretical frame work. The chapter is discussed under the following themes: What is Open defecation, Prevalence of Open Defecation in Nigeria, cause of Open defecation in Nigeria, challenges of Open defecation to health care services in Nigeria, the roles of people health care and associated to health challenges and theoretical prime work.

2.2.1 Meaning of Open Defecation

To avoid conceptual and terminological misinterpretation it is assented to engage in the clarification of Open Defecation and related variables. This will be done within the concept of available literatures of the work earlier carry out by scholars.

According to Mahrukh Saleem, Teresa Burdett & Vanessa Heaslip (2019) Open defecation is the practice of defecating in open fields, waterways and open trenches without any proper disposal of human excreta. The term "Open Defecation" is credited to the publications of Joint Monitoring Program (JMP) in 2008, a joint collaboration of World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) to evaluate the global progress on water and sanitation goals. According to Maya Zaynetdinov 2018 Across world 2.3 billion people do not have access to basic sanitation, and nearly 1 billion people defecate in the open — in gutters, behind bushes, in open bodies of water, and elsewhere.

problem facing many countries in sub-Saharan Africa. Although open defecation rates have been reducing gradually since 2000, the Millennium Development Goals (MDGs) era ended without all countries in sub-Saharan Africa achieving target 7.C., which included reducing by half the proportion of the population without sustainable access to basic sanitation by 2015.

Some estimates indicate that, at the current rate, this can only be achieved by 2026. All Sustainable Development Goal (SDG) regions saw a drop in the number of people practicing Open Defecation, except for sub-Saharan Africa, where high population growth led to an increase in open defecation from 204 million to 220 million, and in Oceania, where the practice increased from 1 million to 1.3 million. This information is supported by studies such as Osumanu and Kosoe, which shows that Open Defecation in Ghana has increased over the years resulting in several environmentally endemic health problems.

The practice of open defecation (hereafter, OD) facilitates the transmission of pathogens that cause diarrheal diseases – the second leading contributor to the global burden of disease, as measured in disability-adjusted life years (DALYs).

It is estimated that 1.7 billion cases of diarrhea occur every year, causing approximately 800,000 deaths among children under 5 years of age worldwide. It is estimated that 1.1 billion people – 15% of the global population – still engage in OD.The majority of OD practices, referred to in national surveys as defecating in fields, forests, bushes, bodies of water or other open spaces, take place in rural areas of low-income countries. Even though the proportion of people practicing open defecation in sub-Saharan African has decreased by 11% from 1990 to 2010, the absolute number of people practicing OD has actually

increased by 33 million over the same time period, due to population growth. In 2010, OD was practiced by 8% of the urban population and 35% of the rural population in sub-Saharan Africa.

In 2010, the United Nation General Assembly recognized access to safe and clean drinking water and sanitation as a human right, and called for international efforts to help countries to provide safe, clean, accessible and affordable drinking water and sanitation.

Despite some progress being made globally, the WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation (the official United Nations group assigned to monitor progress towards the MDG Target 7C) states that "it is unlikely that the world will meet the SDGs sanitation target by 2030. (UNICEF, 2018).

Across Nigeria, 123 million people, or 7 in 10, do not have access to a decent toilet. Millions of people are forced to defecate in the open, in ditches, rivers, or elsewhere, exposing themselves to infection and sexual violence in the process. More than 59,500 children under the age of 5 die each year because of poor water and sanitation. (UNICEF, 2019).

In October 2019, Nigeria became the number one open defecation nation globally, passing India. It is estimated that 50 million Nigerians (or 10 million households) defecate in the open. How Nigeria overtook India is a matter of serious concern. India has a population of 1.353 billion people and 3.287 million km2 land area, against Nigeria's 200 million people and 923,769km2 land area. It took seriousness, determination and great efforts for India to improve. Now that Nigeria is where India used to be on this index, it will need do similar things – but even more seriously. in 2019, Nigeria's President Muhammadu Buhari signed

Executive Order 009 to tackle open defecation. In the same year, Nigeria's Ministry of Water Resources, in collaboration with UNICEF and some

other key agencies, launched the initiative tagged 'Nigeria Open-Defecation-Free By 2025: A National Road Map' in order to end the inimical practice by 2025. Apart from bringing a negative social stigma to Nigeria, which is touted as the Giant of Africa and the most populous black nation in the world, open defecation also poses obvious environmental, health and economic problems for Nigeria and its nationals. It pollutes the environment and exposes children and adults to critical health problems like diarrhea (hence leading to untimely deaths).

Despite strong advance in Open defecation free campaign in Nigeria, but still the practices are still going on in the country. It is not as if Nigeria has no plans to end open defecation. In fact, there is a road map that is supposed to make the country open defecation-free by 2025. But it does not just end with setting targets; all hands should be on deck to ensure that this uncivilized culture becomes a thing of the past.

2.3 Open Defecation in Kauran Namoda Use

Literatures showed that 49.8% of households had no form of toilet facility and were either using communal/public toilets or practicing open defecation. This result is in line with the 2006 Population and Housing Census and Koh indicates that 47.8% and 52% of households, respectively, in the Kauran Namoda had no toilet facilities in their homes and therefore resort to free range in bushes, uncompleted structures, and open fields. Surprisingly, 84% of the respondents without home toilets had good understanding of the hygiene and health dangers associated with open defecation. The broader question seemed

to be one of priorities: in the face of several unmet household needs and limited income, constructing a toilet facility does not seem to be a priority for many households. Financial constraints, which were mentioned by 94% of the respondents, translate into inability to procure construction materials and pay for labour. Respondents lamented over being already in debt over money borrowed for other things, such as food, weddings, or machinery for the farm and difficulties of generating money to pay such debts.

"As a woman, my responsibility does not include building structures (including toilets) because I am a stranger and my late husband's family can send me away at any time. Maybe one of my sons will grow and construct a toilet for us."

The challenges of Open defecation in Kaura Namoda include lack of urban and regional planning system to curtails the movement of peoples, use of absolute planning technology and inadequately human resources, unresolved legislative conflict, consistency and poor urban development actors, habitat and cultures, poor drainages, population outburst, homelessness, lack of found to provide laboratories and travelers need.

2.4 The Practice of Open Defecation

Open defecation had been around for as long as man exist. It happens both in rural and urban areas as well as mega cities. Uneducated are more likely to defecate in open then educated, in the same vein poorest than Richest. The reasons that have been given for people who don't use toilets have either been poverty that makes it a challenge to build latrines or lack of government support in providing such facilities. In cases where the toilets are available, but people still end up preferring open defecation, the reasons can

extend to cultural issues related to sharing toilets among family members. (WHO/UNICEF, 2015)

Health experts say three factors are responsible for widespread open defecation: poverty, lack of lavatories and ingrained cultural norm, which makes the practice socially accepted in some parts of the society. While state governments should persuasively get communities to understand the health and economic consequences of defecating outside, there is also the need to coerce communities to stop open defecation, by adopting methods and passing laws that are more stringent and have a top-down approach. (Punch Newspaper, 2021)

Open defecation continues to be a critical health challenge globally, affecting almost 1 billion people worldwide and contributing significantly to an estimated 842,000 people who die yearly from sanitation-related diseases. Open defecation is a major environmental health problem facing many countries in sub-Saharan Africa. Although open defecation rates have been reducing gradually since 2000, the Millennium Development Goals (MDGs) era ended without all countries in sub-Saharan Africa achieving target. (MGDs, 2021)

The major reason or factors that causes open defecation in Kaura Namuda include; lack of urban and regional planning system to curtails the movement of peoples, use of absolute planning technology and inadequately human resources, unresolved legislative conflict, consistency and poor urban development actors, habit and cultures, poor drainages, population outburst, homelessness, lack of found to provide laboratories and travelers need. (UNICEF, 2019).

In present time also lack of water to plush can be another factors result to open defecation as one morning I meet students of federal polytechnic Kaura Namda going in to neighboring incomplete building and defecate.

2.5 Sanitation Safety Planning

The underlying purpose of sanitation interventions is to protect public health. Management and investments in improvements on sanitation systems should be made based on adequate understanding of the actual health risks posed by the systems and how these risks might best be controlled (A National Road Map', (UNICEF, 2019).

Sanitation Safety Planning (SSP) is a risk based management tool for sanitation systems. The SSP manual provides practical step-by-step guidance to assist in the implementation of the 2006 WHO Guidelines for Safe Use of Wastewater, Excreta and Greywater in Agriculture and Aquaculture (Volume II, III, IV). However, the approach and tools in the manual can be applied to all sanitary systems to ensure the system is managed to meet health objectives.

Sanitation Safety Planning (SSP) manual is targeted at a variety of users at different levels: local authorities (e.g. as a tool for planning investment in sanitation especially in low resource settings); wastewater utility managers (e.g. to assist in managing effluent quality and safeguarding public and occupational health from source to end use or disposal); sanitation enterprises and farmers (e.g. to complement quality assurance procedures for safety of end products, workers, local communities, and consumers or users of the product); community based organizations, farmers associations and NGOs (e.g. to support

community based water and sanitation programs in safe use of human wastes), (Bonjour 2019).

In addition to its site specific use related to a particular SSP process, SSP is also useful for those working at a national level, including: health authorities and regulators (e.g. as a tool to introduce risk based approaches in the sanitation sector, and verify their effectiveness); those guiding the development of policies and programmes to improve the sanitation management.

According to the Sanitation Safety Planning (SSP,2017) the following models can assist in sanitation and hygiene:

Module 1: Prepare for Sanitation Safety Planning

Preparing for the SSP process requires clarity on the priority area, the specific public health objectives of the SSP and the components in the sanitation chain that need to be included to meet the objectives. Additionally a lead organization and team need to be identified. These should represent the various steps of the sanitation system.

Module 2: Describe the Sanitation System

The main objective of Module 2 is to generate a complete description of the sanitation system within the boundary identified in Module 1. A thorough understanding of all parts the sanitation system and its performance requirements supports the subsequent risk assessment process.

Module 3: Identify Hazardous Events, Assess Existing Control Measures and Exposure Risks

An underlying purpose of all sanitation systems is to protect public health. Module 3 ensures that subsequent efforts and investments in system monitoring and improvements respond to highest health risks first.

Module 4: Develop and Implement an Incremental Improvement Plan

In Module 3, the Sanitation Safety Planning team identified the highest priority risks. Module 4 allows flexibility in selecting new control measures or other improvements that address these risks at the most effective places in the system. This process helps to ensure that funding and effort targets the highest risks with greatest urgency.

Module 5: Monitoring Control Measures and Verify Performance

Sanitation systems are dynamic. Even the most well designed systems can under-perform and result in unacceptable public health risk and loss of confidence in the service or products. Module 5 develops a monitoring plan that regularly checks that the system is operating as intended and defines what to do if it is not. Operational and verification monitoring provide assurances to the operators, the public and the authorities of adequate system performance.

WHO response as the international authority on public health, WHO leads global efforts to prevent transmission of diseases, advising governments on health-based regulations.

On sanitation, WHO monitors global burden of disease and the level of sanitation access and analyses what helps and hinders progress. Such monitoring gives Member

States and donor's global data to help decide how to invest in providing toilets and ensuring safe management of wastewater and excreta.

WHO works with partners on promoting effective risk assessment and management practices for sanitation in communities and health facilities through the WHO Guidelines on Sanitation and Health, Safe Use of Wastewater, Recreational Water Quality and promotion of Sanitation Safety Planning. WHO also supports collaboration between WASH and health programmes such as neglected tropical diseases, cholera, polio and antimicrobial resistance.

2.6 Sanitation And Health

Some 827 000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene each year, representing 60% of total diarrheal deaths. Poor sanitation is believed to be the main cause in some 432 000 of these deaths. (Journal of Hygiene and Environmental Health. (Bonjour, 2019).

Diarrhea remains a major killer but is largely preventable. Better water, sanitation, and hygiene could prevent the deaths of 297 000 children aged under 5 years each year. (Torondel, Bell, Cumming November, 2014). "Effectiveness of a rural sanitation programme on diarrhoea, soil-transmitted helminth infection, and child malnutrition in Odisha, India: a cluster-randomised trial". (Odisha, 2016).

Open defecation perpetuates a vicious cycle of disease and poverty. The countries where open defection is most widespread have the highest number of deaths of children aged under 5 years as well as the highest levels of malnutrition and poverty, and big disparities of wealth. (Global Health. 2014).

2.6 Benefits of Improved Sanitation

Benefits of improved sanitation extend well beyond reducing the risk of diarrhea. These include:(UNICEF,2020)

- reducing the spread of intestinal worms, schistosomiasis and trachoma, which are neglected tropical diseases that cause suffering for millions;

- reducing the severity and impact of malnutrition;

- promoting dignity and boosting safety, particularly among women and girls;

- promoting school attendance: girls' school attendance is particularly boosted by the provision of separate sanitary facilities; and

- potential recovery of water, renewable energy and nutrients from faecal waste.

2.3.2 Hygiene and Sanitation Access to Open Defecation in Nigeria.

According to Kumwenda (2019) hygiene as conditions or practices conducive to maintaining health and preventing disease. Hygiene has been shown to reduce diarrheal diseases and assist to improve social outcomes in the community. (According to Muhbub Ul' Haq. a Pakistan economics " income growth figures alone cannot be determinat of development of the nation's i.e Development has to be with high and greater access to knowledge, better nutrition and health services, more secure of livelihoods (environmental sanitation), security against crimes and physical violence, satisfying luxury hours, political and cultural freedom.

hygiene faces several problems especially in countries with low income per capita of population.

Currently, many developing countries already struggle to cope with consistent water shortages and rapid urbanization causing more pressure to limited resources which in turn result in poor hygienic practices in the community. While hygiene measures are taken at personal, domestic, and industrial levels, some can be done at a community level. Community members have a role to play in keeping their communities clean. The members play a role to ensure a clean surrounding of their households, protecting the water sources, proper disposal of wastes (solid wastes and excreta), proper drainage for waste water, control of animal rearing, and hygiene of public places such as markets, schools, health facilities, and prayer areas (e.g., churches and mosques). (Kumwenda, 2019).

Most nation's in developing countries (African, Asian and Latin American) lack proper water resources, sanitation facilities, proper solid waste management, and drainage. However, in most of these markets, raw food such as fruits and vegetables are usually sprinkled with water, which is at most times unclean. Such unhygienic practices pose a risk to the consumers, that is why it is encouraged that a market should have a proper water source, not only for cleaning the goods but also for the sellers, since they use the same water for drinking and cooking. (Bloomfield, Nath. Use of ash and mud for handwashing in low income communities.

Clean Nigeria Campaign

Nigeria ranks first among countries practicing open defecation globally. Here's what we are supporting the Government to implement to address the crisis.

According to the findings from the 2018 WASH National Outcome Routine Mapping (WASHNORM) survey, 47 million people in Nigeria practice open defecation. Consequently, Nigeria loses about 1.3% (N455 billion) of GDP annually due to poor sanitation. Additionally, more than 100, 000 children under the age of five die each year because of water and sanitation related diseases. (Clean Nigeria Campaign, 2021).

In November 2018, the Nigerian President declared a state of emergency in the Water, Sanitation, and Hygiene (WASH) sector, demonstrating political will at the highest level of government, and launched a national campaign tagged 'Clean Nigeria: Use the Toilet' to jump-start the country's journey towards becoming Open Defecation Free (ODF) by 2025.

Water Aid is working with the Federal Ministry of Water Resources (FMWR) and other development partners, civil society organizations, the media, the private sector to implement the "Clean Nigeria Campaign" campaign to end open defecation by 2025 and achieve universal access to safely managed sanitation. The ambitious aim of the hygiene behavior change "Clean Nigeria: Use the Toilet" campaign is to get 47 million Nigerians to use the toilet and stop open defecation.

Despite strong advances in fighting against open defecation, infectious diseases, which disproportionately affect children and women in poor settings, remain highly

prevalence, particularly in sub-Saharan African countries, including Nigeria. (Water Aid, 2018).

2.3.3 The Cost of Open Defecation and Sanitation in Nigeria

The cost of open defecation in Nigeria may include the following;

Economics loss: Nigeria loses about 1.3% (N455 billion) of GDP annually due to poor sanitation as a result of illness, low productivity and loss of learning opportunities. (Water Aid, 2019).

Health impact: More than 100,000 children under 5 years of age die each year due to diarrhea; of which 90 percent is directly attributable to unsafe water and sanitation.

Impact on child development: 1 in 4 children under five years of age exhibit severe stunting, while 1 in 10 are wasted, due to frequent episodes of diarrhea and other Water, Sanitation, and Hygiene related disease (WASH, 2018).

Low productivity: Frequent episodes of WASH-related diseases cause absence from school or work, as affected people take time off to heal, and some to take care of a sick relative.

Poor education outcomes: In most homes, children are responsible for fetching clean water for domestic use. Time spent in search of water and frequent episodes of WASH-related diseases results in reduced school enrolment and attendance.

Loss of dignity and security: Open defecation results in loss of dignity, increased risks of insecurity and violence against women and children.

2.4 Impact of Open Defecation or Health

The negative public health impacts of open defecation are the same as those described when there is no access to sanitation at all. Open defecation and lack of sanitation and hygiene in general is an important factor that cause various diseases; the most common being diarrhea and intestinal worm infections but also typhoid, cholera, hepatitis, polio, trachoma, and others. Apart from weakening children through frequent diarrhea, exposure to open defecation, experts say, also makes them susceptible to conditions such as stunting and malnutrition. in addition, increases the risk of polio infection, especially as the faecal-oral route is seen as an important transmission pathway. It is not surprising that Nigeria has found it extremely difficult to eliminate polio despite years of efforts, mostly sponsored by international agencies.

Nigeria's age-old culture of open defecation has stubbornly held sway in many parts of the country, in spite of the rapid urbanization being witnessed across the land. It is a mark of bad governance that a practice that should rightly belong to the past is still in the ascendancy, despite the havoc it wreaks on the society.

Health experts say three factors are responsible for widespread open defecation: poverty, lack of lavatories and ingrained cultural norm, which makes the practice socially accepted in some parts of the society. While state governments should persuasively get communities to understand the health and economic consequences of defecating outside, there is also the need to coerce communities to stop open defecation, by adopting methods and passing laws that are more stringent and have a top-down approach. (Punch Newspaper, 2021)

Describing open defecation as a mark of underdevelopment would be stating the obvious. Yet, as backward as it may seem, open defecation is sadly not limited to rural communities alone, but is also widely practiced in urban areas, where many slums have sprung up and people tend to build houses with no thought for the provision of adequate sanitation or toilet facilities.

Needless to say, this is an uncivilized culture that continuously casts a blight on the country. It is a phenomenon that should engage the interest of the country's political and health authorities, not only because of its obvious negative image on the society but also due to the grave health implications for the population, especially the children, who are the most vulnerable. (Franka, 2019).

Open defecation is defined by UNICEF as the practice of people going out "in fields, bushes, forests, open bodies of water or other open spaces, rather than using the toilet to defecate." Although common in India, where 521 million people or nearly half the country's population, are involved, Nigeria is one of the top three countries in the world whose citizens are steeped in the practice.

"The situation of sanitation in Nigeria is alarming. Nigeria is third worldwide when it comes to open defecation; one third of the population practice it," a top UNICEF official, Zaid Jurji, said in 2017. Jurji rightly wondered why Nigeria, which he described a "heavyweight country" that is held in high regard globally, should still be entangled in this infamy. (Punch Newspaper, 2018).

Open defecation has been implicated in many cases of cholera, diarrhea, hepatitis, polio and typhoid fever, among other diseases in the country. "In fact, over 88 per cent of

diarrhea in children, the fastest killer of children under the age of five in Nigeria, is caused by open defecation," said Jurji, who is worried that Nigeria may not even meet the global target of 2030 for ending the backward practice. (Punch, 28 October 2019).

Apart from weakening children through frequent diarrhea, exposure to open defecation, experts, also makes them susceptible to conditions such as stunting and malnutrition. It, in addition, increases the risk of polio infection, especially as the faecal-oral route is seen as an important transmission pathway. It is not surprising that Nigeria has found it extremely difficult to eliminate polio despite years of efforts, mostly sponsored by international agencies.

Adverse health effects of open defecation occur because open defecation results in fecal contamination of the local environment. Consequently, open defecators are repeatedly exposed to faecal bacteria and faecal pathogens, and this is particularly serious for young children whose immune systems and brains are not yet fully developed.

Certain diseases are grouped together under the name of waterborne diseases, which are diseases transmitted via fecal pathogens in water. Open defecation can lead to water pollution when rain flushes feces that are dispersed in the environment into surface water or unprotected wells.

Open defecation was found by the WHO in 2014 to be a leading cause of diarrheal death in 2013, about 2,000 children under the age of five died every day from diarrhea.

Young children are particularly vulnerable to ingesting feces of other people that are lying around after open defecation, because young children crawl on the ground, walk barefoot,

and put things in their mouths without washing their hands. Feces of farm animals are equally a cause of concern when children are playing in the yard.

Those countries where open defecation is most widely practiced have the highest numbers of deaths of children under the age of five, as well as high levels of malnourishment (leading to stunted growth in children), high levels of poverty and large disparities between rich and poor.

Research from India has shown that detrimental health impacts (particularly for early life health) are even more significant from open defecation when the population density is high: "The same amount of open defecation is twice as bad in a place with a high population density average like India versus a low population density average like sub-Saharan Africa.

Open defecation is also badly affecting the health of children and their life quality as it creates health and psychological issues.

2.4.1 Gender and Open Defecation

There are strong gender impacts connected with open defecation. The lack of safe, private toilets makes women and girls vulnerable to violence and is an impediment to girls' education. Women are at risk of sexual molestation and rape as they search for places of open defecation that are secluded and private, because often during hours of darkness.

Lack of privacy has an especially large effect on the safety and sense of dignity of women and girls in developing countries. They face the shame of having to defecate in public so often wait until nightfall to relieve themselves. They risk being attacked after dark, though

it means painfully holding their bladder and bowels all day. Women in developing countries increasingly express fear of assault or rape when having to leave the house after dark. Reports of harassment near or in toilet facilities, as well as near or in areas where women defecate openly, are common.

The result of open defecation may end up in leading contaminated water supplies and the spread of diseases. Open defecation can pollute the environment and caused health problems. High level of open defecation is linked to high child mortality poor nutrition, poverty and disparities between rich and poor.

More over the society with high numbers of OD suffer from economics loss, health impact, an child development, low productivity and poor education in outcome and loss of dignity and insecurity over women and children.

2.5. Theoretical Framework

The study and concept of this research is development based on human ecological theory range from very abstract to concrete. Human ecology is a field of study that looks at on the relationship between people and their built and natural physical environment (Park, 1915).

The earliest mention of human ecology can be found in the early 1900s among animal ecologists, who, as a result of studying population trends among plants and animals, suggested that ecological principles also applied to humans and their relationship to the natural environment.

Later, biological ecologists and population scientists used similar concepts—such as ecosystem, environmental niche (the space occupied by an organism in which it can

survive and reproduce), feedback loop, stability, and growth—to address issues of population growth and environmental destruction; this line of study became particularly prominent in the 1960s and 1970s, as in the 1973 work of Paul Erhlich, Anne Erhlich, and John Holdren. Also in the 1970s, Urie Bronfenbrenner (1979) developed an ecological model of human development to understand the reciprocal relationships between individuals and the multiple environments in which they live. Gerald Marten (2001) uses human ecology and complex systems theory as a framework to examine economic systems and other social institutions and their impact on the natural environment. In particular, he discusses human ecology as a tool for resolving issues of sustainable development and environmental problems by understanding the complex interrelationship between human social systems and the ecosystem.

Anthropologists used ecological concepts to study the history and culture of human groups and societies to explain their success, failure, or adaptation. The concepts of equilibrium, movement of resources, sustainable development (meeting present needs without compromising the ability of future generations to meet their own needs), and the adaptation of organizational systems have been applied to the study of families, communities, race relations, schools, workplaces, government agencies, and other social institutions. It was in the study of urban environments that the concepts of human ecology achieved prominence. Sociologists working in this area—Park and Burgess (1920s), Frazier and Sutherland (1930s), and Janowitz (1950s)—addressed key issues such as the impact of human settlement on land-use patterns (for example, traffic flow patterns, water and flood management), the intertwined history of industrial development and urban decay, race relations, and white flight to understand human behavior and organization in

the urban environment. Beginning in the early 1920s, scholars such as Ernest Burgess and Robert E. Park employed ecological concepts to explain the development of cities and communities. For example, the POET model—population, organization, environment, and technology—was developed to address the complex relationships between humans, their social organizations, and their environments. One of the architects of sociological human ecology was Amos Hawley(1944, p. 405), a population specialist and professor at the University of North Carolina, Chapel Hill, who argued that human ecology was "the basic social science".

Hawley is known for his work on the conceptual and theoretical foundations of sociological human ecology (see Hawley 1986) and the associations among population, the social-political-economic environment, and change in developing nations.

Generally speaking, the rapid inflow of rural population to urban places gives rise to housing problem. For example, the migrant workers who get to employ this usually lead to challenges such as accommodation challenges, traffic connection, increase in crime rate, malnutrition among urban poorer follow by water supply and sanitation challenges. In contrast, most part of those people who emphasize open defecation have no access with housing, working in the streets they are very poor and defecate in every places they found themselves to ease their selves mostly in gutter and by ways in the heart of Kaura Namuda. In other hand in rural areas of Kaura Namuda where many poor people can't afford to install toilet in their homes and uses bushes and fields leading to contaminated water supplies and the spread of disease.

The functional views in this research prime work focuses in how changes in one aspects of social system affect other aspects of society. It includes:

i. Human ecology

ii. Urban ecology

While the research focuses more on human's ecology. Human ecology is the relationship between humans and their natural, social and built environment.

Bronfenbrenner (1979), one of the first researchers to rely extensively on human ecology theory in studies of children and families, defined on ecological perspective by focusing on development as a function of interaction between the developing organism and the enduring environments or contexts in which it lives out its life. He applies the theory in practical way to explain quality factors in day care for children the value of flexible employment schedules for parents, and improving the status of women.

Bronfenbrenner argues that the child always develop in the context of family relationships and development is the outcome of the child's genetics attribute combined with them humiliate family and eventually with other components of the environment. This work stands in contrast to many psychological studies that explain individual behavior solely by considering individual's traits and ability.

James Garbiarino (1997) uses human ecology theory to explain abuse in families, especially toward children. He considers nature –dilemma- whether the powerful influence of environment can override the conditions of our biology. The interaction between these factors are difficult to research, because often one is hold constant in order

to assess variations in the other. The model has been used by researcher to investigate problems in various cultural contexts.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with research methodology. The technique and method of data analysis is clearly specified to enable the research is formulated relevant models and basic on which the data present and analysis will follow. It covers research design, study setting, sampling techniques and procedure analysis and limitation of the study.

3.1 Research Design

The study adopted cross-sectional research design. The reason for adopting this design is because it helps the researcher to examine the prevalence of particular behavior in study area. Therefore, the study is appropriate since it will help the researcher to understand open defecation and associated to health challenges in Kaura Namuda Local Government area of Gusau, Zamfara state of Nigeria.

3.2 Location of Study

Kaura Namuda was one of the twelve (12) oldest local government areas created out of former Sokoto State in 1976 with the first chairman in person of Alh. Mohammed Mamman Zuma. . Kaura Namuda gave birth to Zurmi and Birnin Magaji local governmental accordingly in the present Zamfara state. With the creation of Kaura Namuda emirate along with three others comprising Zurmi, Birnin Magaji and Shinkafi, kaura became the largest of all the emirates in the State.

The development also made "Alibawa" to take their rightful historical position of the leadership in this part of the former Sokoto caliphate. Kaura Namuda local government is also one of the (14) local government of the present Zamfara state. It has its administrative headquarters situated in Kaura Namuda town. The Kaura Namoda local government area is a home to the Federal Polytechnic Kaura Namoda, Zamfara State. It is bordered with Birning Magaji in the east Bungudu in the south, Maradun in the west and Zurmi in the north. Kaura Namoda was established in 1996 with its present sole administrativein person of Alh, Sahabi ya'u Kaura.

History has shown that most of the people of the area are Hausa/Fulani by tribe and other settlers such as Katsinawa Gobirawa etc as the researcher has diligently observed it, the people of this area are predominantly farmers and business man. This researcher is a survey of Kaura Namoda local government people of whom participating open defecation as well as those who are not by using both questioner and interviewer. The purpose of this survey is to solicit the perception and the opinion of those people regarding their educational and information needs.

The sampling population for the study is drawn from kauran namuda local government of Zamfara State area. A sample population was collected from the words of local government. The national population census (2006) states that kauran Namoda has a population of 139,814. However, only 400 respondents were selected for the study and make a generalization of behind of all population. The local council has an area of 868km^2 (335 sqml) with a population of 285,363 in 1991, the Population enumeration of 2006 and its 2016 projection, it was estimated at 393,000.

3.3 Population of Study

The sampling population for the study is drawn from kauran Namuda local government of Zamfara State area. A sample population was collected from the words of local government. The national population census (2006) states that kauran Namoda has a population of 139,814. However, only 400 respondents were selected for the study and generalization made to cover the whole population.

3.4 Sample Size Determination

The study used Yamane's (1967) formula to determine the sample size of the study. The formula is express below.

$$n = \frac{N}{1 = N(e)^2}$$

Where n = the sample size

N = the population size

1 = Constant

e = Level of Significance (Usually 0.5 or 95%)

Therefore, applying the above formula, the sample size will be: $n = \frac{N}{1 = N(e)^2}$

$$n = \frac{139,814}{1 + 139,814\ (0.5)^2}$$

$$n = \frac{139,814}{1 + 139,814\ (0.0025)}$$

$$n = \frac{139,814}{139,815 \times 0.0025} \cong 400$$

These 400 respondents represent the sample size of the study

3.5 Instrument and Method of Data Collection

Questionnaire was used to collect data on open defecation and its associated health challenges in Kaura Namoda local government area. A total of 400 questionnaires was distributed to elicit response questioner will be distributed to the targeted population in districts selected. Data were sourced from primary source. The primary sources of data for this study include the administration of questioner and in depth interview which are discuss below:

Questionnaire: the use of questionnaire to carry out this study has become necessary due to the inability of the researcher to meet all the respondents. On the way to gather all the data for the investigation and subsequent analysis, the questionnaire to be used for this research will be structured in two parts. The first part contains questions seeking respondent information or personal data which will eventually help the researcher in various analysis that will subject the responses. Then second section questions set of questions set of questions that are drawn and constructed from the research question and propositions of the study. A total of 400 questionnaires will be distributed to target population in districts selected.

3.5 Method of Data Analysis

The data collected was analyzed with the used Statistical Package for Social Sciences (SPSS) and the results of the analyzed were presented in frequencies and percentage for better understanding.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF FINDINGS

This chapter deals with the presentation and analysis of data gathered from questionnaires administered four hundred (400) questionnaire were administered and three hundred and two 76% (305) were retrieved which the analysis were based on. While 24% (95) were not retrieved.

There are five sections in this chapter namely: Social chracterise of respondants, open defecation and it's associated health challenges in Kaura Namoda, causes Open Decation in Kaura Namoda, Open Defecaton can cause health challenges in Kaura Namoda, health challenges associated to Kaura Namoda Open Defecation Challenges of Open Defecation and possible solution.

Table 4.1 Socio-Demographic of Respondents

SN	Variables	F (N=305)	Percentage
	Sex		
	Male	185	60.7
	Female	120	39.3
	Age (in years)		
	16 – 20	62	20.3
	21 – 25	68	22.2
	26 – 30	70	23.0
	31 - 35	47	15.4
	36 – 40	21	06.9
	41 & above	37	12.1
	Religion		
	Christianity	102	33.4
	Islam	194	64.1
	Traditional	09	02.5
	Level of Education		
	No formal Education	128	42.0
	Primary	029	09.5
	Secondary	098	32.1
	Tertiary	050	16.3
	Occupation		
	Farming	96	31.4
	Trading	50	16.3
	Civil Service	79	26.0
	Schooling	33	10.8
	Artisan	28	09.1
	Others	19	06.2
	Marital Status		
	Single	52	17.0
	Married	212	69.5
	Divorced	15	4.9
	Separated	17	5.5
	Widowed	09	3.1

Source: Author's Survey 2021

4.1. Social Characteristic of Respondents

Questions were asked on some social characteristics from the respondents such as sex, age, marital status, household size, level of education, occupation, and income (as shown in Table 3). Data showed that the majority 60.7% of the respondents were males while

the remaining 39.3% were females. Though the pattern of gender distribution of the respondents were in favour of male population, that does not mean the male population is higher than those of female but reflect the dominance of males as household heads in the Kauran Namoda Local Government Area. Similarly, and like it is in northern Nigeria, males are traditionally responsible for household, communal decisions and provision of basic necessities of life including sanitation facilities. The age of respondents ranged from 16 to 21 years with those in the 22–25 years and 26–30 years' age groups constituting the majority (56.6% total). Those aged 31 to 35 years, 36 to 40 years and 70 + were only represent 34.4%.

On status of marriage, 69.5% of the respondents were married while 17.0% were single, about 13.5% indicated that they were either divorced, widowed or separated with their partners. The majority (42.9%) of the respondents had a household size of 7–9 members, followed by 21.6% with household sizes of 4–6 members. A household size of 1–3 recorded the lowest percentage of 16.8%. In terms of educational levels of the respondents, only 16.3% were schooled up to the tertiary level, while 42.1% had no formal education and the rest had basic and secondary education. The data on respondents' occupation indicate that 31.4% of them were subsistence farmers and 26.1% were public/civil servants. A large proportion of the respondents were engaged in other economic activities, mainly artisanal employment (comprising masons, plumbers, electricians, hairdressers, etc.). The explanations above are presented in the Table below:

4.2 Open Defecation and its Associated Health Challenges In Kauran Namoda Local Government.

This section presents and discusse the data on Open Defecation and associated to health challenges in Kauran Namoda Local Government area

Table 4.2: Rate of Open Defecation in Kauran Namoda Local Government

Response	Frequency	Percentage
Low	113	37.1
Moderate	71	23.2
High	121	39.7
Total	305	100.0

Source: Field Survey, 2021

Table 4.2 showed that majority of respondents represented by 39.7% were of the view that Open Defecation was high in Kauran Namoda Local Government, 37.1% indicated that the rate of open defecation is low while 23.2% said it was moderate. Since majority of the respondents said the phenomenon of Open Defecation was high, it can be concluded that the rate of Open Defecation in Kauran Namoda Local Government is high. The first objective was to determine the rate of Open Defecation in Kauran Namoda Local Government Area.

The finding of the study indicates that Open Defecation rate is high. This study confirms that World Health Organization WHO 2017 of OD rates especially in North which Kauran Namoda Local Government Area, Zamfara state, Nigeria is high.

able 4.3: Causes of Open Defecation in Kauran Namoda Local Government Area

Response	Frequency	Percentage
Poor Political will to curtail the movement of people	52	17.0
Habit and culture	50	16.4
Poor Urban Development	85	27.8
Poverty and Lack of Education	118	38.8
Total	305	100.0

Source: Field Survey 2021

Table 4.3 indicates that the majority of the respondents of whom represent 38.8 % (118) of the respondents were of the view that Poverty and lack of education responsible for Open Defecation are high, and those on the view of poor urban development was 27.8 % (85), followed by poor political will to curtail the movement of people by 17.4 % (54) and 16.4% (50) represent habit and culture of the people. i.e it is obvious that several factors are responsible for the prevalence of OD in the study area but the key driver of OD was poverty and lack of education. The outcome of this study revealed that there's different causes of Open Defecation in Kauran Namoda Local Government, but the key causes identify by this research was poverty, habits and culture.

Table 4.4: Open Defecation can Cause Health Challenges in Kauran Namoda Local Government

Response	Frequency	Percentage
Yes	23	76.4
No	63	20.4
Not Sure	10	3.3
Total	305	100.0

Source: Field Survey 2021

The researcher proved further to obtain information from the 233 respondents who agree that Open Defecation is essentially in reducing the quality of livelihood, died of children and put economics in jeopardy and 20.3 % (62) have positive views on Open Defecation while (10) people represent 3.3 % have not sure.

Table 4.5: Health Challenges Associated with Open Defecation

Variables	Frequency	Percentage
It invite a lot of insects to the environment	63	76.4
It affect the people living condition	45	20.4
It will effect when the person who practice open defecation did not wash his hand	32	13.3
When it joined with the water tanks	54	23.2
It will pollute the air	39	16.7
Total	305	100.0

Source: Author's Survey 2021

4.3 Discussion of Findings

The study observed that 96% (63) were of the view that Open Defecation invite a lot of insects to the environment in Kaura Namoda Local Government.

This study was supported by the studies such as Usman and Kosee (2015) which shows that Open Defecation have increased over the years resulting in rural environmentally endemic health problem.

The major causes of Open Defecation based on this were poverty and ignorance.

Table 4.6: Challenges of Open Defecation in Kauran Namoda Local Government Area

Variables	Frequency	Percentage
Lack of Quality Health Care	37	12.1
Inadequate Manpower	46	15.1
Long Distance to Health Facilities	50	16.4
Unequal Manpower	40	13.1
Religious and Cultural Beliefs	54	17.7
Corruption	67	2.2
Others	11	3.6
Total	305	100.0

Source: Author's Field Survey 2021

The above Table showed that 54 respondents representing 17.7% were of the view that religious and culture could cause open defecation. The implication of these findings is that

the level of incomes livelihood to sustain their family thereby, create room for poverty eradicate open defecation a challenges to health. It was observed that the major challenges confronting died of children under five years and diseases such as Malaria, typhoid, cholera diarrhea etc. were Open Defecation. The study shows that respondents were unanimous that education and Mass media and strong political will for budgeting and provision of Mobile toilet not less than three kilometers for community to access may be the salutations of Open Defecation.

Table 4.7 Solutions to the Problem of Open Defecation

Response	Frequency	Percentage
Education and Mass Media for the Dissemination of Behavior Changes	84	25.5
Strong Political Will for Budgeting and Strong Public Sector	59	19.3
Creative of the Right Incentives Sector and Other Organizations	50	16.3
Provision of the Mobile Toilet	48	15.7
All of the Private or Business Building most have Toilet Facilities	30	10.0
Each Local Government must have Sanitary Officials	23	7.5
Well Targeting of Wash Founding on each Level Especially Rural Areas	11	3.6
Total	305	100.0

Source: Author's Field Survey 2021.

Table 4.6 shows 27.5 (84) of respondents are advocating education and Mass media for the dissemination of behavior changes as a measure to curb Open Defecation in Kauran Namoda, 19.3 % (59) look for strong political will for budgeting, 16.3 % (50) respondents was on views of right incentives activities and Organizations, (48) respondents represent 17.3% was on the view of Mobile toilet as the driver for Open Defecation Free, 10% (30) respondents was strongly see provision of toilet in all form of private and business building as the cure to the problems, 7.3% (23) respondents say no let the government and other

authorities have well targeting to wash founding on each community level more especially in rural community and lastly were respondents on the view of the view of each local government must provide sanitation facilities with 3.6 % represent (11) people.

From the table above it's logical to conclude that majority of the respondents are of the opinion that to effectively archive Open Defecation Free in Kauran Namoda local government, education and Mass media should be in consideration. The finding of this study will assist with the UNICEF that poverty, habit and culture a major contribute to Open Defecation in Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The chapter presents the summary of the research work, the conclusion and recommendations on Open Defecation and associated health challenges in kauran Namoda Local Government Area.

5.2 Summary

The research examined Open Defecation and associated to health challenges in Kauran Namoda Local Government Area. The main objective was to determine the rate of Open Defecation, identify the causes and explain the roles and challenges of Open Defecation to health in Kauran Namoda Local Government Area. Relevance literatures were reviewed to provide in-depth explanation of the subject matter, in addition to exploring Ecology theory in providing theoretical background explanation to the subject of Open Defecation in Kauran Namoda Local Government Area. Chapter three was on research methodology, chapter four including data collected from the field were analyzed, present and interpretation frequency and percentages, while in chapter five present summary, conclusion and Recommendation of the study.

5.3 Conclusion

Most of the national level indices, including a country's economic status, were not associated with the change in the open defecation prevalence. Based on current trends, the goal of ending open defecation in the majority of sub-Saharan African countries by 2030 and Nigeria by 2025 will not be achieved. Our findings may be limited by the exploratory

nature of this analysis, and future research is required to identify and characterize national level factors specific to reducing open defecation in sub-Saharan Africa and Nigeria.

5.4 Recommendations

The health effects of open defecation can be divided into several high burdens of diseases and by number of premature deaths more especially in children and impact to women/girls for sexual harassment. This is because open defecation results in massive faecal contamination of the local environment, consequentially open defecators are repeatedly exposed to feacal bacteria and faecal pathogens, and are not yet fully developed.

Based on the findings open defecation elimination by 2030 and 2025 in Nigeria is to be accelerated, then a clear understanding is needed of what prevents and what drives the transition from OD to using latrine. Sanitation marketing, behavior change communities, and enhanced community's total sanitation supplemented by nudging, are three most likely joint strategies to enable communities, both rural and per urban, to become completely OD free and remain so. It will be a major sanitation challenge to archive the eliminate verse health effect should be our principle tasks as we seek to archive sanitation target of sustainable development goals – in deals its moral imperative for all government and development professional.

The phenomenon does not just occur in the rural areas of Kaura Namoda but also in the cities centers of Kaura Namoda local government, and among the educated class in public schools and private including federal polytechnic Kaura Namoda, business areas such as market and other business residential areas.

Kaura Namoda population about 45% defecating in open places, including bushes, gutters, sidewalks, motor packs recreation parks, rivers areas, streets and incomplete building among others.

REFFERENCES

A National Road Map, (UNICEF, 2019) Nigerian Open Defecation free by 2025.

Afe Babalola, (Vanguard, 25 December 2019) 'The scourge of open defecation in Nigeria: Need for immediate and urgent intervention'

Ahmad J (30 October 2014). "How to eliminate open defecation by 2030".

Bronfenbrenner, u. (1975). "reality and research in theecology of human development." proceedings of the american philosophical society 119(6):439–469.

Deavgar, a.; bronfenbrenner, u.; and henderson, c. r.(1977). "socialization practices of parents, teachers, and peers in israel: kibbutz, moshav, and city." child development 48(4):1219–1227.

E. A. Kosoe and I. K. Osumanu, (2018) Ghana," Ghana Journal of Development Studies, vol. 15, no. 1, p. 151, 2018.

Guidelines for ODF Verification" (PDF). Indian Ministry of Drinking Water and Sanitation. 2015. Archived (PDF) from the original on 11 April 2016. Retrieved 3 May 2016.

Kumar R. Sinha S.F (2019) International Journal of Community Medicine and Public Health.

O'Reilly K (1 January 2016). "From toilet insecurity to toilet security: creating safe sanitation for women and girls". Wiley Interdisciplinary Reviews:

Paul Adepoju (2019), 'Why Nigeria's campaign to en open defecation is Making Nigeria.

Prüss-Ustün A. Wolf J., Bartram J., et al. (2019) Burden of disease from inadequate water, sanitation and hygiene for selected adverse health outcomes:

Ritchie, Roser, Mispy, Ortiz-Ospina (2018) "Measuring progress towards the Sustainable Development Goals." (SDG 6).

Timothy Obiezu,(2019) 'Nigerian Authorities Launch Campaign Against Open Defecation' 11.

UN, (2015) The Millennium Development Goal Report 2015, United Nations, New York, NY, USA.

UNICEF (2019) Progress on Drinking Water, Sanitation and Hygiene 2000–2017. New York, NY, USA:

WHO and UNICEF (2017) Progress on Drinking Water, Sanitation and Hygiene: Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF)

WHO and UNICEF (2019) Progress on household drinking water, sanitation and hygiene 2000–2017:

World Bank, World Development Report 2015: Mind, Society, and Behavior, The World Bank, Washington, DC, USA, 2015.

World health organization WHO (2019) fact sheets for trachoma. Swithland. 2017.

APPENDIX 1

QUESTIONNAIRE

Dear Respondents,

I'm a final year student of Federal University Gusau conducting a research concerning Open defecation and associated to health challenges in Kaura NAMODA local government area. This is in partial fulfillment of the award of B.sc sociology.

I hereby solicit your cooperation and assure you that all information that you will give will be treated with utmost confidentiality.

Thank you.

Umar Magaji

Instructions

1. Please tick where appropriate

2. Fill the gaps where applicable

SECTION A: Socio- Demographic data of respondents.

1. SEX : Male ( ) Female: ( )

2. AGE: (a) 16-20years ( ) (b) 21-25years, (c) 26-30years (.), 31-35years ( )

(e) 36-40years ( ), 40 and above years ( )

3. RELIGION: (a) Christianity ( ), (b) Islam (.) Traditionalist ( ), (d) other's

4. Highest level of education Attainment: (a) None (), primary (.), Secondary (.), (d) Tatiary (.) Poop

5. Occupation: (a) Farmer ( ), (b) Trader ( ), (c) civil servant ( ), (d) student (.), (e) Artisan (.), And Others specify ....,.....

6. Marital Status: (a) Never married (.), (b) ever Married ( ).

7. If ever Married, what is your current state of marriage?

(a) Divorce ( ) , (b) Separate ( ) , (e) Widowed ( ).

SECTION B: Rate of Open defecation in Kaura Namoda local Government Area.

(Objective 1)

8. What do you think are the rates of Open Defecation in Kaura Namoda?

,.....,.....

.....

9. Do you think Open defecation rates is prevalent in Kaura Namoda local government Area.

(a) Yes. (.) (b) No. ( )

10. How can you access the rates and nature of Open defecation in Kaura Namoda local government?

(a) High (.), (b) very high (.), (C) low (.), (d) very low ( ).

11. Which social class do you think have the most rates scourge of Open defecation in Kaura Namoda?

(a) lower class (.), (b) middle class ( ), (c) upper class (.), (d) other's specify.....

12. Do you think the rates is increasing or decreasing.

(a) decreasing,. (b) Increasing

CAUSES OF OPEN DEFECATION IN KAURAN NAMODA. (Objective 2)

13. What do you think contributes to Open Defecation practices in kaura Namoda local government Area.....

14. Do poverty contribute to open defecation practices.?

(a), Yes. (.) , (b) No ( )

15. Do you think habit and culture contribute to open defecation?

(a) Yes (.) ,. (b) No (.)

16. Does consistency and poor urban development contribute to open defecation.?

(a) Yes,. ( ), (b) No (.)

17. Between Rich and poor who do you think are the most likely to practice Open Defecation in Kaura Namoda?

(a) Rich ( ),. (b) Poor ( )

Health challenges (objective 3)

18. Do you think Open Defecation is challenges to health ?

(a) Yes ( ) ,. (b) No (.)

19. If answer is yes or no states why ?

.....

.....

20. Open Defecation is effecting livelihood and put Economics in jeopardy?

True or False

21. Do this Possible solution. Objective 4

22. What do you think are the possible solution to the problem of Open Defecation in Kauran Namoda.....

23. Do you think education and research can be one of the salutations of Open Defecation?

.....

24. Strong political will for budgeting can help in eradicating Open Defecation ? Yes or No.

25. How well do you think the government programmes and capacity development work for archiving Open Defecation in Kauran Namoda local government ?

.....

26. To your own perception, What do you think are the based way to allocate the problem of Open Defecation. .....