

**INFLUENCE ON WASTE MANAGEMENT ON THE HEALTH OF THE
PEOPLE LIVING IN EKOSODIN COMMUNITY**

BY

IGHOLUYA OGAGA BENJAMIN

EDU0905908

DEPARTMENT OF HEALTH, ENVIRONMENTAL EDUCATION

AND HUMAN KINETICS

FACULTY OF EDUCATION

UNIVERSITY OF BENIN

BENIN CITY

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CERTIFICATION

This is to certify that this project work has carried out by IGHOLUYA Benjamin Ogaga in partial fulfillment of the requirement for the award of Bachelor of Science B.Sc (ED) in Health Education

Prof Ikponmwosa Owie

(Project supervisor)

EFE-AIGBOVO.A (MRS)

Date

Date

Prof. Mrs.L.I.Salami

(Dean, Faculty of Education)

Date

DEDICATION

This work is dedicated to God Almighty, for his grace which has seen me through this project work so also my parents, Mr. and Mrs. Isaac Orugbo, my Sister Miss. Igholuya Angella for their encouragement and support.

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I thank God Almighty for granting me good health, strength, and perseverance.

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ABSTRACT

This study was conducted to investigate the influence of waste management on the health of the people of Ekosodin community Benin City Edo state. It focused on the present condition of waste management. Twenty-four (24) research question were formulated survey research design was used;

The questionnaire was adopted as instrument for data collection. The reliability of the instrument was gotten using the persons product moment correlation and a coefficient of 0.82 was obtained. In the data collection and analysis it was discovered that most respondents are aware of waste management practices, they are also aware of the various health implications of improper waste management.

Waste segregation practices should be encourage at the point where source of waste are being generated, because segregation of waste will contribute to better management of the total waste mass.

CHAPTER 1

Background of the study

The environment is the sum total of human surrounding consisting of the atmosphere, hydrosphere, lithosphere and biosphere. Human are totally dependent on the environment for life itself. Environmental sanitation is a global issue, the number of pollution is constantly rising throughout the world as consequences of growing industrial development and means depends on advanced technology to achieve better result toward evaluating his standards of living in food production, transportation, shelter, road construction and so on.

The population in Nigeria has been growing at a rapid rate with this increase: there has also been an increase in the amount of waste being produced especially in the cities. In the future he may expect environmental

problems to become more widespread and more severe if they are not checked.

In Nigeria cities, most of the waste dumps are located close to the dump sites (Ross wall 2004) waste, when they litter the streets or not properly disposed, result in offensive odors on their decomposition. Apart from the various diseases and toxic condition inherent are derivable from waste product. The mountainous heaps of solid waste that deface Nigeria cities and the conditions discharges of industrial contaminants into streams and rivers without treatment motivated the federal government of Nigeria to promulgate decree of 58 for the establishment of a federal environmental pollution Agency (FEPA) ON 30th December 1988, in spite of the formulation of FEPA and a national policy, the environment has not been adequately protected in recognition of these problems past government issues through the task force approach.

This approach has been counterproductive in the long run as it created in the long run as it created more problems due to lack of co-ordination and technological know her in responsible agencies (Agunwanba 1998). Benin

metropolis is not free from anthropogenic (man made) activities, hence the presence of solid waste which create environmental sanitation problems. Indiscriminate disposal and dumping of waste has become a common practice in the city (capital of Edo state in southern Nigeria is grossly deficient in most cities in sub-Sahara Africa. Most people do not have access to a hygienic toilet, large amount of faecal wastes are discharged to the environment without treatment.

This is likely to have major impact on infectious diseases burden and quality of life. (Hulton, Haller&Bartan 2007) the environmental sanitation unit (ESU) was responsible for the collection and disposal of household waste generated in market places and other commercial premises. Waste from schools, colleges and public and private business premises. Benin City serves both as city council head-quarters and state capital. The state government's response to poor waste collection and disposal condition spur the establishment of an adhoc body, the Edo State Environment Sanitation task force.

This task force, headed by a military officer to deal decisively with sanitation problems (Ogu 2000). In Benin metropolis there are several markets, it is well known fact that everybody, the markets are flooded with agricultural products such as plantain, yam, sweet potatoes and the likes. All these give rise to waste from food stuffs and meats, rotten tomatoes, pepper, plantain and likes. All these items when not dispose properly gives opportunity for mosquitoes to breed and multiply thereby putting human life's in danger.

The quest for packaged food in our society in increasing in our society today, when material used for the packaging are not properly disposal and are beaten by rain and other hydrogen's as they constitute an eyesore. Most market women are oblivious of the health hazards. The heaps of refuse have become so rife that the drainage and culverts in and around the place are not spared. Blockages of water leeway have given rise to flooding. Solid waste services in Benin City are inadequate, over 60 percent of houses do not have any formal arrangement for waste collection and disposal which implies that no public or private waste services providers are available to these residential houses and their neighborhood.

The household involved usually throw refuse into water drain, burn waste materials within and outside the compound or use any available or throw refuse into the concretized old city moat (Ogu 2000). Environment Agencies responsible for waste collection and disposal seem to have cost grip of these waste control. They do not have modern and necessary equipment for this job, hence unable to cope with the rising waste generation since health is said to be health'' something need to be done about the collection, transport, processing recycling and disposal.

STATEMENT OF PROBLEM

Waste generation is inevitable as long as human are on the earth, there is need to have the knowledge on how we can manage waste that are generated but in the case of this study, there have been improper waste management and poor methods of disposal which has led to some health problems and illness such as malaria which are spread by mosquitoes. There has also been air pollution as a result of offensive odors emanating from the waste that are dumped in front or beside residential houses. To this

end there is need to examine this problems so as to tackle it and minimize the identified problems.

RESEARCH QUESTION

- (1) Is there any relationship between waste management and people's health?
- (2) Are people aware of the dangers in improper waste disposal?
- (3) Are there illnesses associated with poor waste disposal?
- (4) Are people knowledgeable to the various way in which waste can be managed or disposal?
- (5) Does improper waste management has influence on the environment?

PURPOSE OF STUDY

The purpose of the study is to find out the manner of ways in which the people of Ekosodin Community manage and dispose their waste and its effects on their health. It is also aimed at indicating the prospective roles of

proper waste disposal factors towards the health of the people of Ekosodin Community.

SIGNIFICANCE OF THE STUDY

Over the years, people have not given much attention to the aspect or area of waste management, all they are interested in is generate waste and dump it anywhere. The significance of the study is to check the health status of the people as is relates to the various ways they manage their waste. It is also aimed at checking if the illness prevalence in the community is associated with improper waste management.

DELIMITATION OF THE STUDY

This research study is restricted to the people of Ekosodin Community Benin City, Edo State.

LIMITATION OF THE STUDY

The limitation of this study is that, the information may not be detailed enough which may affect the comprehensiveness of the study.

DEFINITION OF TERMS

Waste: Waste also known as rubbish, trash, refuse, junk and litter is unwanted or useless materials.

Waste Management: Is the collection transportation processing reaching or disposal and monitoring of waste materials.

Solid Waste: This is defined as discarded solid fraction produced from domestic commercial, trade, industrial agricultural, institutional running activities and public services.

Municipal waste: These are waste resulting from city\ urban activities dweller's activities and services as sweeping, dead animals, market waste and abandoned vehicles.

Recycling: This is a resource recovery practice that refers to the collection and recite of waste materials such as empty beverage containers and so on.

CHAPTER 2

LITERATURE REVIEW

The influence of waste management on the health of the people in Ekosodin Community will be view under the following sub-heading:

- Concept of waste management
- Concept of solid management
- Concept of waste disposal
- Concept of waste management practices in Nigeria
- Influence of waste management practice on People's health
- Summary

THE INFLUENCE OF WASTE MANAGEMENT ON THE HEALTH ENVIRONMENT

Accumulation of waste due to its improper disposal is a major problem in our country.

Population in Nigeria has been growing at a rapid rate with this increase; there has also been increase in the amount of waste being produced especially in the cities. In the absence of proper waste management, this waste lies littered on our streets, road corners and improperly disposed of in vacant land. All of these are serious health hazards apart from being eyesores. If they are not cleared regularly at the earliest, they innate host of problems like increasing numbers of insect rectors like flies mosquitoes and so on. Scavengers such as dogs, pigs and rats which spread dangerous diseases.

It also generates bad odor and causes pollution which can affect our respiratory system and equally cause respiratory diseases.

Concept of waste management

Waste management is the collection, transport, processing or disposal, managing and monitoring of waste materials (wastes 2008). The term usually relates to material produced by human activities and the process is generally undertaken to reduce their effect on health, the environment or aesthetics, waste management is a distinct practice from resources recovery which focuses on delaying the rate of consumption of natural resources. All wastes materials, whether they are solid, liquid, gaseous or radioactive fall within the remit of waste management.

Waste management practices can differ for developed and developing nations, for urban and rural areas, and for residential and industrial producers, management of non-hazardous waste residential and institutional waste in metropolitan areas is usually the responsibility of local government authorities while management for non-hazardous commercial and industrial waste is usually the responsibility of the generator (wan less environ 2008).

Concept of solid waste management

Solid waste is defined as discarded solid fraction produced from domestic, commercial, trade, industrial agricultural, institutional running activities and public services according to the American public work association, solid waste is classified into twelve categories which are gasbags, rubbish, ashes, street sweeping, dead animals, abandoned vehicles, constructional demarcation waste industrial refuse, special waste such as hospital waste.

(1) Municipal waste: These are waste resulting from municipal activities and services such as sweeping, dead animals, market waste and abandoned vehicles, generally the term municipal waste is used in order sense to incorporate domestic wastes, institutional wastes and commercial wastes. Municipal solid waste can be categorized into five groups: Biodegradable waste: food and kitchen waste, green waste, paper (can also be recycled). Recyclable material: paper, glass, bottles, cans, metals, certain plastics, etc. Inert waste: construction and demolition waste, dirt, rocks, debris. Composite wastes: waste clothing, tetra parts, waste plastics such as toys. Domestic hazardous waste (also called

household hazardous waste’’) and toxic waste: medication, e-waste, paints, chemicals, light bulbs, fluoresce tubes, spray cans, fertilizer and pesticide containers, batteries, shoe polish.

(2) **Garbage:** The term applies to animals and vegetables waste generated from the handling, storage, sale, preparation such waste contain put irascible (easily and quickly biodegradable with bad smell).

(3) **Sewage waste:** This is a water-carried waste, in solution or suspension, that is intended to be removed from a community also known as waste water, it is more than 99% water and is characterized by volume or rate of flow, physical condition, chemical constituents and the bacteriological organism that it contains. As the living style in urban area is totally different from the rural area (sanitary system, industrialization etc) much more solid waste are produced in urban area. More advertisement, higher is the solid waste production. As a result of poverty and lifestyle, the habit of living with nature and lesser production density, lesser waste is produced in rural areas. To handle the

problems of solid waste in an efficient manner is known as solid waste management (Gaur 2008).

WASTE DISPOSAL

The common methods of disposal of wastes are incineration, composting and landfills. The final disposal of waste should be done in such a way that it remains a waste in actual sense i.e. nothing can be recovered out of it and if could not be used anywhere.

Land Fill: This involves burying the waste and this remains a common practice in most countries. Landfills were often established in abandoned or unused mines, mining voids or borrow pits when the combined waste (inorganic or organic) is disposed on the land then the devote time. Landfills can create a number of adverse environmental impacts such as wind-blown litter, attraction of vermin, and generation of liquid leachate.

Incineration: Incineration is a disposal method in which solid organic wastes are subjected to combustion so as to convert them into residue and gaseous products. This method is useful for disposal of

residue of both solid waste management and solid residue from waste water management. This process reduces the volumes of solid waste to 20 to 30 percent of the original volume. Though incineration is extensively used as a useful method of waste disposal, it is associated with some polluting dischargers who are of environmental concern these can effectively be controlled by installing suitable pollution control measures and by construction of finance suitably and by controlling the combustion process.

Composting: This is the conversion of refuse to stable human like substance. It is the purposeful biodegradation of organic Matter such as yard and food waste. The decomposition is performed by micro-organism, mostly bacteria but also yeast and fungi the conversion of refuse to compost may take place with or without oxygen, however to speed up the rate of decomposition, elimination of odors and excessive fly breeding, adequate supply of air is necessary for refuse to decompose with or without faces or sewage sledge (Gaur and Agwriwanba 2008)

Recycling: This is a resources recovery practice that refers to the collection and reuse of waste materials such as empty beverage containers. The materials from which the items are made can be reprocessed into new products. Materials for recycling may be collected separately from general waste using dedicated bins and collection vehicles are sorted directly from mixed waste streams and are kerbed-side recycling to separate it into various different bin (typically wheelie bin) prior to its collection. The most common consumer products recycled include aluminium such as beverage cans, copper such as wire, steel food and aerosol cans etc. These items are usually composed of a single type of material; making them relatively easy to recycle into new product.

WASTE MANAGEMENT PRACTICES IN NIGERIA

As common in most developing economies, Nigerians seem to see pollution from domestic and industrial waste as a necessary outcome of development. Domestic waste production is necessary and is compounded by a cycle of poverty, population explosion, low

standard of living, bad governance, and low level of environment awareness according (Izeze 1991) many of the current problems associated with waste disposal have resulted from rapid urban increasing population and hazard many municipal area generate more solid that they can manage, and this situation tends to increase with income level and the economic development of the area.

Indications has shown that rising incomes, growing population and changing consumption patterns combine to complicate solid waste problems in Nigeria. Domestic refuse in Lagos alone has been estimated to be 4.5 millstones year-1 statistical analyses have been shown that the daily amount of domestic solid waste generate and collected in this urban area in 1978 varied from 0.1-0.5kg per person depending on the location and economic standing of the individual (Nwankwo 1994). In 1985, the Federal government of Nigeria introduced a major initiative, the environment sanitation (cleaning up campaign). All residents of Nigeria were mandated to carryout compulsory environmental cleaning every last Saturday in the month from 7.00am to 10.00am. The initiative was good but its

implementation generated more problems garbage waste from the exercise were dumped along roadside instead of the dumpsites designed by the local government authorities for the purpose.

The waste is left to decompose naturally (micro-organism) to be eating by animals, or wasted away by dam water, flood in the estuarine environment. These wasted are carried away by the tidal, floods into large creeks and rivers and thus; will affect surface-water quality (Nweke 2008). In 1998 with the establishment of the federal government protection Agency (FEPA) in response to growing concerns about unhealthy environment, inform by the thoughtless dumping of toxic waste in koko as small town in the Delta pounces of the country by an unscrupulous Harlan firm. Subsequently, state government regulatory programme were formulated under the state Environment protection Agency (SEPA) in conformity with state edicts. The existing three local government councils in Benin City (i.e. Oredo, Egor and Ikoba-okha) have a place in health sanitation unit to manage solid waste in the city and its municipality (Ogu 2008)

INFLUENCE OF WASTE MANAGEMENT PRACTICES ON PEOPLE'S HEALTH

Inadequate waste management has serious problem and implication on the people. Some of those problems are associated with poor quality arising from improper waste disposal techniques and waste management practice includes typhoid fever, diarrhea, cholera, hepatitis hookworm infestation, skin disease, malaria and so much more. Waste dumps are unsanitary and destroys the aesthetic appeal of the environment. They harbor flies, mosquito's rat and other disease vectors. Some of the disease carried by rodents and insects vector includes Lassa fever, malaria, and falariaisis, yellow fever, etc. These waste areas provide food, water and habitats, and breeding areas for those disease carrying agents. Pollution of rivers and lakes results in destruction of aquatic life due to an increase to organic load and the concomitant depletion of dissolved oxygen in the water when

fish or other aquatic organism are not immediately killed, they accumulate pollutant which are eventually transferred to man through food refuse dumps contribute to the increase in pulmonary diseases among the population near dump sites, as well as degradation of the physical environment.

SUMMARY

Waste is misplaced resources and can be seen as anything the owner does not want at a particular time and place. Also waste management in Nigeria has many problems ranging from economic, environmental, socio-cultural; to socio-political issue the level of awareness and environment education about potential hazards relating to a political environment is still low. People are more concerned with daily survival and will not be bothered about concepts like waste management. Indiscriminate disposal and dumping of waste has become a common practice in Nigerian cities. The presence of waste degenerates the aesthetic value of the environment in view of the diverse nature of the Nigerian society and economic, cultural and

socio political problem, this paper takes into consideration appropriate strategies and measures that could be adopted for waste management to ensure protection of our health and environment.

CHAPTER THREE

METHODS OF STUDY

The influence of waste management on the Health of the people in Ekosodin community.

This chapter the methods and procedures used in carrying out the study. It comprises of the following sub headings;

- Research Design
- Population of the study
- Sample and Sampling technique
- Instrumentation
- Validity of the Instrument
- Reliability of the Instrument
- Administration of the Instrument

- Method of Data analysis

Research Design

The research design adopted for the study was the survey research design. It involves collection and analyzing of data from a few person considered to be representative of the entire group. One can also generalize with the design.

Population of the study

The population used for the study comprised of all those living in Ekosodin Community.

Sample and Sampling Technique

Sample sizes of 100 respondents were drawn from two streets in Ekosodin Community. The purposive sampling technique was use for

this purpose. 50 respondents were drawn from each street. The streets are; Edo and Ehorukomwen streets respectively.

Validity of the Instrument

The instrument was subjected to scrutiny by learned lecturer along with supervisor the department of health environment and human kinetics. They ascertained the content validity of the instrument.

Reliability of the Instrument

The reliability of the instrument was established using person's product moment correlation coefficient.

Administration of the Instrument

The instrument was administered personally by the researcher to each respondent after obtains permission from the community Youth Leaders and Elders from the community.

METHODS OF DATA ANALYSIS

The data collected was analyzed using the frequently count and simple percentages. The data is analyzed using descriptive statistics.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

This chapter deals with analysis of data collected from the questionnaire administered by the research. The data is analyzed by breaking down questionnaire items into the various research questions.

Table 1: Personal Data of Respondents;

a	Sex group	Frequency	Percentages
	Male	45	45%
	Female	55	55%
	Total	100	100%
b	Age group	Frequency	Percentage
	18-22 years	34	34%
	23-27 years	41	41%
	Above 28	25	25%
	Total	100	100%

c	Religion	Frequency	Percentage
	Christianity	55	55%
	Islam	25	25%
	Africa traditional religion	20	20%
	Total	100	100%
d	Marital status	Frequency	Percentage
	Married	31	31%
	Single	54	54%
	Widow	2	2%
	Widower	3	3%
	Divorcee	10	10%
	Total	100	100%
e	Occupation	Frequency	Percentage
	Students	39	39%
	Traders	11	11%
	White collar	21	21%
	Others	29	29%
	Total	100	100%

Analysis of sex status of the respondents in table 1 shows that 45% of respondents are males while the females represented 55% of the population sample.

Analysis on age status as indicated above shows the respondents aged 18-22 years totaled 34% of the samples, respondents aged 23-27

years totaled 41% and the respondents above 28 years totaled 25% of the entire population sample.

Analysis of respondents' religion shows that respondents who are Christians totaled 55%, Muslim respondents totaled 25% and the respondents of the African traditional religion totaled 20% of the entire population sample.

Analysis on marital status as indicated in the table shows that respondents that are single totaled 54% and the respondents that are married totaled 31%, respondent that are widows totaled 2%, respondents that are widower totaled 3%, respondents that are divorcee totaled 10% of the entire population sample.

Analysis on occupation indicates that students totaled 39%, traders totaled 11%, while collar job totaled 21% and others with Varsity of jobs totaled 29% of the entire population sample.

RESEARCH QUESTIONS 1

Table 1. Is there any relationship between waste management and people's health?

Responses on Waste Management and People' Health

Questionnaire	Responses		Percentage	
	Yes	No	Yes	No
I. Do you think the manner in which someone manages his/her waste can affect his health?	93	7	93%	7%
2. Can ones health be affected by improper waste management?	97	3	97%	3%
3. Major illness in the environment result from improper waste management?	58	42	58%	42%
4. Proper disposing of waste does not affect healthy living?	54	46	54%	46%
5. Personal cleanliness and hygiene is not part of waste management?	23	77	23%	77%

Analysis from table 2 presents the responses of respondents to research one; is there any relationship between waste management and people's health?

The items in the table above test for questions presented in the questionnaire which in turn tests for research question one. To the item;

Do you think the manner in which someone manages his\her waste can affect his health, responses shows that 93% tick the yes while 7% of the respondents ticked no?

Can ones health be affected by improper waste management, 97% ticked yes, 3% ticked No option. Major illness in the environment result from improper waste management's, 58% said yes and 42% said no.

Improper disposing of waste does not affect healthy living, 54% gave a yes while 42% gave a no.

Personal cleanliness and hygiene is not part of waste management, 23% ticked yes while 77% ticked no.

Research question 2: Are people aware of the dangers in improper waste disposal.

Table ii. Are people aware of the dangers in proper waste disposal?

Response on Awareness of Dangers of Improper

Questionnaire

Responses Percentage

Items	Responses		Percentage	
	Yes	No	Yes	No
6. Improper waste disposal is dangerous?	91	9	91%	9%
7. The increase in number of rodents and pests is enhanced by poor management of waste?	98	2	98%	2%
8. Poor waste management generates offensive odors?	97	3	97%	3%
9. Improper waste disposal depicts one's health?	93	7	93%	7%

The item, improper waste disposal is dangerous, 91% respondent yes to this item and 9% respondents picked no. The item, the increase in number of rodents and pest is enhanced by poor management of waste, 98% respondents yes and 2% responded no. The item, poor waste management generate offensive odors, 97% responded yes while 3% gave a no.

The item, improper waste depict one's health, 93% responded yes and 7% gave a no.

Research Question 3: Are there illness associated with poor waste disposal

Responses on illness Associated with poor waste disposal

Questionnaire	Responses		Percentage	
	Yes	No	Yes	No
10. Malaria outbreak is as a result of the improper disposal of waste?	89	11	89%	11%
11. Poor waste management is a leading cause of typhoid?	75	25	75%	25%

Table IV presents the responses of respondents to research questions three; malaria outbreak is as a result of the improper disposal of waste, 89% responded yes while 11% responded no. The item; poor waste management is a leading cause of waste and air borne diseases: 75% responded yes while 25% said no.

Research question 4: Is people knowledge to the various ways in which waste can be managed or disposed.

Knowledge on ways of proper disposal

Questionnaire **Responses percentage**

Item	Yes	No	Yes	No
12. Bush clearing and removal of stagnant water is not a waste management practice?	15	85	15%	85%
13. Sanitation done on the last Saturday of every month does not improve health living?	58	42	58%	42%
14. Do you participate in the environmental sanitation every month?	80	20	80%	20%
15. Do you think trash-bins are a suitable way to manage waste?	84	16	84%	16%
16. Burning of waste management	44	56	44%	56%
17. Environment degradation is a result of poor Government law on environment?	88	12	88%	12%

The item, Bush clearing and removal of stagnant water is not a waste management practice, 15% responded yes to this item while 85% picked no.

The item, sanitation done on the last Saturday of every month does not improve healthy living, 58% ticked yes while 42% picked no.

The item, do you participate in the environmental sanitation every month, 80% yes while 20% responded no.

The item, do you think trash-bins are a suitable way to manage waste? 84% picked yes and 16% picked no.

from poor environment hygiene				
24. Indiscriminate disposal of waste aid good health?	54	46	54%	46%

The item: keeping the environment clean is the job of the community members, 90% responded yes and 10% responded no.

The item: cleanliness is next to Godliness, 98% ticked yes while 2% responded no.

The item: poor health / low level of health results from poor environmental hygiene, 94% responded yes while 6% ticked no.

The item: indiscriminate disposal of waste aid good environment 54% ticked yes and 46% gave a no.

DISCUSSION OF FINDINGS

The purpose of this study is to investigate the influence of waste management on the health of the people of Ekosodin community. Therefore a detailed discussion of result obtained is presented according to finding defined from research question; they are discussed as follow;

Research question 1: is there any relationship between waste management and people's health?

The result present in table 2 shows that the manner in which someone manages his/her waste.

Ones health can also be affected by improper waste management, results shows that proper disposing of waste affects healthy living. It also shows that some individuals are aware that illness in the environment results from improper waste management while other feels the opposite.

Personal cleanliness and hygiene is not part of waste management, a lot of respondents gave a no because they know that personal cleanliness and hygiene is a part of waste management practice while few others feel is no part of it.

Research question 2: Are people aware of the dangers in improper waste disposal? The result in table 3 shows that improper waste disposal is dangerous because from all indications people are aware of the dangers in improper disposal of waste. Also the increase in the number of rodents and pest is enhanced by poor management of waste because if refuse or

waste sites are located very close to the house, it attracts mosquitoes and other pest to the surroundings; making individual vulnerable to infections.

It also heads to the generations of offensive odor which is one way or other affect our respiratory system thereby heading to poor health status of individuals to therefore reduce this incident it necessary that we locate refuse site far away from the living environment.

Research question 3: Are there illness associated with poor waste disposal. The result table IV shows that malaria outbreak results from improper waste disposal and ill-manage surroundings. And most of them also know that typhoid is also an illness that from this practice especially when food and water s is contaminated. This can occur when environment is untidy and dirty which attracts mosquitoes and other agents.

Research question 4: Are people knowledge to various ways in which waste can be manage or disposed? The result evident in the table 5 shows that bush clearing and removal of stagnant water is a waste management practice because bush and stagnant water around the

surroundings can harbor pest and other agents. Environment sanitation done every Saturday is waste management practices which help to improve the people health but the result from the table shows that not all members of the community is involved in it.

Another way to manage waste is the use of trash-bins which most of the community members practice which other may just decide to keep them anywhere near the house. Burning of waste such as paper, nylon, clothes is advisable especially when dry. In burning waste, food items should be separated from others aid the burning of waste. Another issue to be given consideration is the environment in which human inhabits from the table if showed that environmental degradation is as a result of poor government law on environment.

Research questions 5: Does improper waste management has influence on the environment? From the table 6, that indiscriminate disposal of refuse is not due to lack of disposable site but people just decide to dump refuses anywhere due to laziness which in turn affect the environment. It is also obvious that proper waste management practice does not improve

health it also improve the environment of which a lot of them feel cleanliness is next to Godliness. They believe that God cannot dwell in a dirty environment.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

SUMMARY

This study was designed to investigate the influence of waste management on the health of the people in Ekosodin Community.

Especially the study wanted to uncover the knowledge and practice of individual in the community toward management of waste.

Research questions formulated for the study as follow;

- 1) Is there any relationship between waste management and people's health?
- 2) Are people aware of the danger in improper waste?
- 3) Are there illnesses associated with poor waste disposal?
- 4) What type of waste disposal methods do the people practice?
- 5) Does improper waste management his influence on the environment?

Related literatures on this subject matter was revered the research designed used for the study was a descriptive survey research design. The people living in Ekosodin Community constituted the population of the study. A sample random sampling technique was adopted to select the 100 persons used as respondents for the study from two streets in the community (Edo Street and J.B Street). The

study the instrument used for the study was a questionnaire which was structured into two sections.

Section A was strictly for the information of the respondent

Section B was for question items that tested for the research questions.

The instrument was constructed by the researcher. The instrument was validated by two experts from the Department of Health; Environment Education and Human Kinetics. The suggestions and recommendations made by the experts were incorporated into the final instrument subject to an approval of the project supervisor. From the instrument items, responses were made by respondents as findings to the study.

FINDINGS

- 1) It was discovered from the study that there is a relationship between waste management and people's health?
- 2) From the study, people are aware of the dangers in improper waste disposal?

- 3) It was also discovered that some illness such as malaria and Air-borne diseases are associated with poor waste disposal?
- 4) People are fully exposed or equipped with knowledge of waste management practice but they still participate in such exercise that will pollute the environment?
- 5) From the study, improper waste management or disposal has influence on the environment which in turn affects the health of the inhabitants.

CONCLUSION

The conclusion from findings in the study shows that disposal of waste is a common menaces in Ekosodin Community. This study also indicated that majority of the responds are aware of the influence of improper disposal of waste on their health but doesn't stop them from managing their waste improperly. Poor waste management arises from the nation that feels management of waste is the job of the government.

RECOMMENDATION

To curb the problem of improper waste management in the bud, the following measures are commended.

1. Since most of the problems are associated with domestic waste management are due to lapses in government policies and programs. Therefore the government of Nigeria should encourage private and domestic waste management firms with expertise in handling the waste generated by diverse human activities.
2. Waste segregation practices should be encouraged at the point sources of waste are being generated, separation of waste will contribute to their management of the total waste mass.
3. Recycling of waste after sorting is an important feature in handling waste products, the recycling of people waste will reduce pressure on the sources of raw materials used for production and could contribute to increase economic development in Nigeria.
4. Finally, as in practiced in many developed countries environmental legislation should allow for environment protection. Other sector of the agency should be involved in the management of waste.

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APPENDIX 1

**DEPARTMENT OF HEALTH ENVIRONMENT AND HUMAN
KINETICS**

FACULTY OF EDUCATION

UNIVERSITY OF BENIN

QUESTIONNAIRE

Dear sir/madam,

I am a student of the above named department.

I am currently carrying out a research on the topic “Influence of Waste Management on the Health of the people of Ekosodin Community”.

Kindly assist to provide the information required. All information will be treated with high confidentiality and could be used for academic purpose... only.

Please kindly tick () in the appropriate box and fill the appropriate information in the space provide.

Section A

Personal data

Sex: Male () Female ()

Religion: Christianity () Islam () African Traditional Religion

Occupation

Marital Status: Married () Single () Widow () Widower () Divorcee ()
Age: 18-22years () 23-27years () Above 28 ()

Section: B

- 1) Do you think the manner in which someone manages his/her waste can affect his health? Yes () No ()
- 2) Can ones health be affected by improper waste management? Yes() No ()
- 3) Major illness in the environment result from improper waste management? Yes () No ()
- 4) Proper disposing of waste does not affect healthy living? Yes () No ()
- 5) Personal Cleanliness and hygiene is not part of waste management? Yes () No ()
- 6) Improper waste disposal is dangerous? Yes () No ()
- 7) The increase in number of rodents and pests is enhanced by poor management of waste? Yes () No ()
- 8) Poor waste management generates offensive dour? Yes () No ()
- 9) Improper waste disposal deplicts one's health? Yes () No ()
- 10) Malaria outbreaks are as a result of the improper disposal of waste? Yes () No ()
- 11) Poor waste management is a leading cause of typhoid? Yes () No ()
- 12) Bush clearing and removal of stagnant water is not a waste management practice? Yes () No ()
- 13) Sanitation done on the last Saturday of every month does not improve healthy living? Yes () No ()
- 14) Do you participate in the environmental sanitation every month? Yes () No ()
- 15) Do you think trash-bins are a suitable way to manage waste? Yes () No ()
- 16) Burning of waste is not a waste management practice? Yes () No ()

17) Environmental degradation is a result of poor government law on environment? Yes () No ()

18) Indiscriminate disposal of refuse is due to lack of disposable site? Yes () No ()

19) Keeping the environment clean is the job of the community members? Yes () No ()

20) Cleanliness is next to Godliness? Yes () No ()

21) Prevention is not better than cure? Yes () No ()

22) Proper management of waste improves the optimum health of an individual? Yes () No ()

23) Poor health/ low level of health results from poor environmental hygiene? Yes () No ()

24) Indiscriminate disposal of waste aid good health? Yes () No ()

APPENDIX II

CALCULATING FOR RELIABILITY

No	X Yes	Y No	x^2	Y^2	Xy
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1	13	11	169	121	143
2	17	7	289	49	119
3	20	4	400	16	80
4	4	20	16	400	80
5	14	10	100	196	140
6	13	11	169	121	143
7	14	10	196	100	140
8	4	20	16	400	80
9	4	20	16	400	80
10	20	4	400	16	80
11	20	4	400	16	80
12	19	5	361	25	95
13	19	5	25	361	95
14	5	19	289	49	119
15	17	7	81	225	135
16	9	15	324	36	108
17	18	6	484	4	44
18	22	2	9	441	63
19	3	21	3	441	63
20	21	3	441	9	63
	$\sum x$	$\sum y$	$\sum x^2$	$\sum y^2$	$\sum xy$
	240	245	3863	3422	1,950

$$\sum x = 240$$

$$\sum y = 245$$

$$\sum x^2 = 3863$$

$$\sum y^2 = 3422$$

$$\sum xy = 1950$$

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n}\right] \left[\sum y^2 - \frac{(\sum y)^2}{n}\right]}}$$

$$r = \frac{1950 - \frac{240 \times 245}{20}}{\sqrt{\left[3863 - \frac{(240)^2}{20}\right] \left[3422 - \frac{(245)^2}{20}\right]}}$$

$$r = \frac{1950 - \frac{58800}{20}}{\sqrt{\left[3863 - \frac{57600}{20}\right] \left[3422 - \frac{60,025}{20}\right]}}$$

$$r = \frac{1950 - 2940}{\sqrt{[3863 - 1846][3422 - 3001.25]}}$$

$$r = \frac{990}{\sqrt{[-983][420.75]}}$$

$$r = \frac{990}{\sqrt{[143972.5]}}$$

$$r = \frac{990}{1198.8}$$

$$r = 0.82$$

