



## DETERMINANTS OF WASTE DISPOSAL PRACTICES AMONG RESIDENTS OF AGEGE LOCAL GOVERNMENT AREA OF LAGOS STATE NIGERIA

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**ABSTRACT:** *Inadequate knowledge, negative attitude, poor perception on the part of the residents are some of the problems resulting from poor waste disposal practices. Hence this study investigates determinants of waste disposal practices among residents of Agege local government Lagos state Nigeria. Methodology: A multistage probability sampling method was adopted to select the residents in Agege Local Government, Lagos State. RESULT: Majority of the respondents, 40.9% had a high level of knowledge about waste disposal practice. 70.8% of the respondents had a positive attitude. 55.7% of the respondents had a fair level of perception towards waste disposal. 56% of the residents had average waste disposal practice. CONCLUSION: The study established that the residents of Agege had a good level of knowledge regarding waste disposal practices, this reflected in their attitude and perception towards waste disposal practice.*

**KEYWORDS:** Attitude, Perception, Knowledge, Waste disposal Practices



## INTRODUCTION

Waste generation is unavoidable for man, but it is a major challenge in cities around the world. Waste disposal problems have drawn global attention as a result of advancement in the development of new technologies, services and consumable products, therefore the quantity and quality of the waste disposed increases every year around the world (Chen, 2019). Waste disposal are several activities or actions put in place to manage waste from the generation stage to final disposal (United Nations Statistics Division, 2017). Waste can either be liquid, solid or gaseous, each of this type has its methods of collection and disposal. Also, sources of waste can be industrial, biological and households, in some cases it can be a threat to human health (Abila & Kantola, 2017).

Globally, the world generates more than 2.01 billion tonnes of municipal solid waste annually, with at least 33 percent of that extremely conservatively not managed in an environmentally safe manner (United Nations Environment Programme, 2019). Worldwide, waste generated per person per day averages 0.74 kilogram but ranges widely, from 0.11 to 4.54 kilograms. Though they only account for 16 percent of the world's population, high-income countries generate about 34 percent, or 683 million tonnes, of the world's waste. Global waste is projected to grow to 3.40 billion tonnes by 2050, more than double population growth projection over the same period (UNEP, 2019). This indicates that, there is variation in waste disposal practices across regions, residential area and industrial sector; hence developing unique approaches to disposal of waste (European Union, 2019; Hornweg & Bhada-Tata, 2018). However, in the United Kingdom, landfill is one method utilised for waste disposal; the United Kingdom experience of waste disposal has over the years, championed waste disposal laws and strategies reviewed in order to achieve a safer environment (Botterill, 2018).

In sub-Saharan African countries, available data indicate that over 125 million tonnes of waste is generated per annum as at 2012 and more than 81 million tonnes (65%) are from the Sub-Saharan African region (Scarlat, Motola, Dallemand, Monforti-Ferrario & Mofor, 2015). This is expected to increase by 2025 to about 244 million tonnes per year based on the average waste collection rate of only 68 million which is nearly half of the waste generated in the African region with sources from remains from cities, towns, dumped sites, open field and storm-water drains (Van, 2018).

In sub-Saharan African countries, there is paucity of resources to enable the implementation of waste disposal for the benefit of the citizens. The first Waste Disposal outlook in the African region was published by the United Nations Environment Programme (UNEP) in 2018 which was a global call to respond to the environmental crisis in the African region and the deplorable state of waste disposal in the region (UNEP, 2018). Studies have indicated that waste collection services are found in the main cities while the rural communities are being negated (Madinah, Boerhannoeddin & Rriffin, 2018).

The effects of ineffective waste collection and poor waste disposal is countless. Insufficient collection and poor waste disposal practices generate serious health related problems to humans and the environment. In sub-Saharan Africa for instance, poor disposal practices have aggravated health related problems (Zhu, 2018). Findings by Zhu (2018) and Sharholy (2018) confirm that poor waste collection practices and improper solid waste disposal contribute to local episodes of disease, regional water resource pollution and global greenhouse gases. Also revealed that high incidence of diarrhoea in children under six is interrelated to food



contamination by flies which had fed on wastes. Hygiene related diarrhoea alone is thought to cause 30,300 deaths per year and is considered one of the commonest outpatient cases (Domfeh, 2019). Another poor waste disposal practice has shown to be disposal of waste into water bodies. This contaminates the environment, contributes to flooding and serves as potential means to increasing transmission of communicable diseases; malaria, dengue and hemorrhagic fever, yellow fever and West Nile Fever. There are several studies from developed countries focusing on the impact of wastes on wellbeing of individuals especially those residing in urban settlement (Van, 2018; Davidson, 2018; Madinah, Boerhannoeddin & Rriffin, 2018; Crowel, 2018). However, there is very little information focusing on the impact of wastes on the health of residents, especially in low and middle income countries (Ezeh, 2017; Babayemi, 2017; Mbah & Nzeadibe, 2017; Benson & UNEP, 2018). Therefore, it is important to understand the determinants of waste disposal practices among residents of Agege, Local Government Area of Lagos State Nigeria.

## **METHODOLOGY**

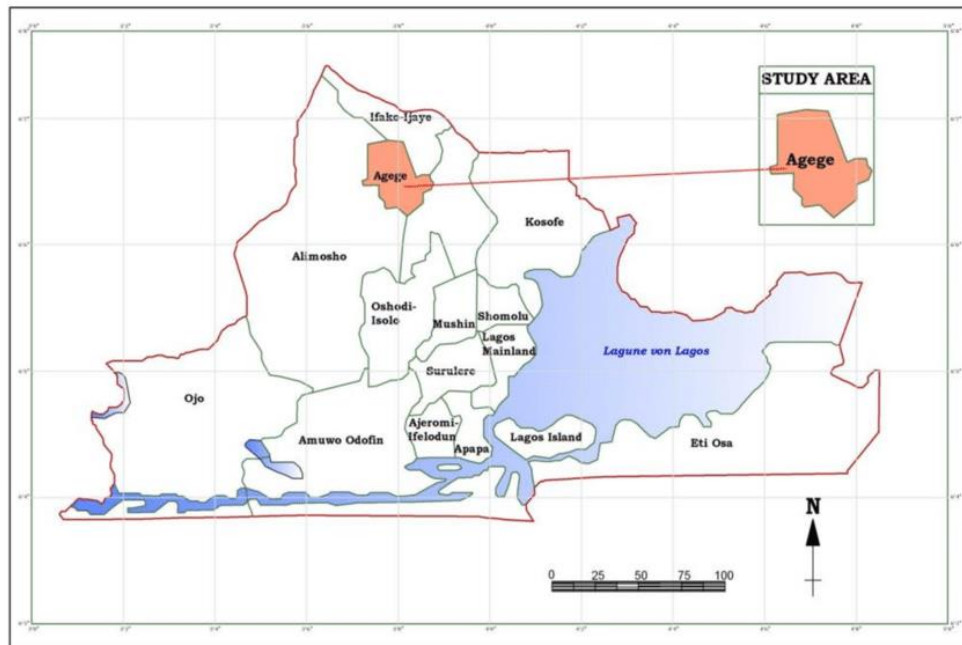
### **Study Design**

The design of this study is descriptive cross-sectional. A cross sectional study design involves the collection of data to answer research question of interest at one point in time from individuals in an entire population or a subset, and is especially appropriate for describing the status of phenomena or relationships among phenomena at a fixed point in time (Chris & Diana, 2004).

### **Study Area**

Agege is a suburb and local government area found in the City of Lagos located in the Southwestern parts of Nigeria. Agege LGA is made up of districts which include Ogba, Oniwaya, Dopemu, Mangoro, and Sango.

The population of the area is estimated at 303,935 inhabitants with Christianity and Islam as the commonly practiced religions. Yoruba and pidgin English are commonly spoken within the Agege LGA. Popular landmarks in Agege LGA include the imposing Oba Agege statue and the NYSC Permanent Orientation Camp, Iyana Ipaja.



**Map Showing the Study Area, Lagos State**

### Study Population

The study population for this study is the Lafarge cement workers in Ewekoro Ogun state, Nigeria.

### Sample Size

Sample size is estimated using the Kish Leslie (1965) formula for quantitative studies. The formula states that:

$$N = \frac{Z^2 \cdot P \cdot (1-P)}{D^2}$$

$$D^2$$

Where;

N – Sample size

D – The desired degree of accuracy, which is taken to be 0.05

P – The estimate of the satisfaction rate among target population (which was assumed to be 50% in the absence of a pre-existing estimate) 50% = 0.5

Z $\alpha$ - The standard normal deviation of 1.96 corresponding to 95% confidence interval.



Substituting:

$$N = \frac{1.96^2 \times 0.50 (1-0.50)}{0.05^2}$$

$$N = \frac{3.8416 \times 0.50 \times 0.5}{0.0025}$$

$$N = \frac{3.8416 \times 0.25}{0.0025}$$

$$N = \frac{0.9604}{0.0025}$$

$$N = 384$$

### **Instrument for Data Collection**

A self-structured 30-item questionnaire was used in data collection for this research study. The instrument is structured and designed in accordance with the conceptual framework in order to effectively meet the objectives as well as answering the research questions. The questionnaire was divided into four (4) sections; they include demographics characteristics, knowledge, attitude, perception and waste disposal.

### **Validity of the Instrument**

The instrument was constructed by the researcher and given to the supervisors to examine the face and content validity. The corrections and changes made were affected. Also, inputs were obtained from two experts in Public Health. The importance of all these is to ensure that the instrument measured what it was supposed to measure.

### **Reliability of the Instrument**

To ascertain the reliability of the instrument, a pilot study was done. Thirty-eight copies of the questionnaires were administered to 38 workers in Alimosho Local Government Area of Lagos State, which was not part of the study area. After the pilot study, the questions were fine-tuned by removing the ambiguous ones. The result of the pre-test was used to improve the quality of the questionnaire. The questionnaire's reliability was thus assessed using Cronbach alpha test and a reliability coefficient of 0.77 was obtained.

### **Method of Data Collection**

The process of data collection is of a critical importance to the success of any research study. Without high quality data collection techniques, the accuracy of the research conclusion is easily challenged. Therefore, the data gathering procedure involves a trained research assistant who reads out the questionnaires in English, a letter of consent is also presented to the respondents to sign before administering the survey instrument. The purpose and contents of the questionnaire is explained to the respondents stating the fact their identity would not be disclosed.



## Method of Data Analysis and Presentation

### Data Analysis Method

The data collected were analysed in IBM SPSS Statistics version 23 (IBM Co., Armonk, NY, USA), while Microsoft Excel (Ms Excel 2010) was used for chart drawings. Preliminary data analysis includes using descriptive techniques for the construction of frequency distribution tables which were expressed as a percentage of the distribution. Graphical charts such as pie chart and bar chart were also used to represent some of the distributions. Mean scores were calculated on scaled data.

The knowledge was classified as good knowledge and poor knowledge based on answering the questions correctly. The summary of the knowledge was obtained as an average to the knowledge scores.

In terms of attitude, a four-point Likert scale (strongly disagree, disagree, agree and strongly agree) was used to obtain information, of which points were assigned ranging from 1 for strongly disagree to 4 for strongly agree. The points were used to multiply by the frequency obtained in each item, and the mean scored were computed. In terms of perception, a four-point Likert scale (strongly disagree, disagree, agree and strongly agree) was used to obtain information, of which points were assigned ranging from 1 for strongly disagree to 4 for strongly agree. The points were used to multiply by the frequency obtained in each item, and the mean scores were computed.

## RESULTS / FINDINGS

### Analysis of Knowledge of Waste Disposal among Residents

Table 1 indicates that 48.7% of the residents gave meaning to waste as materials that cannot be used by anyone, 40.9% of the participants reported it is the useless and unwanted products derived from the activities of and discarded by the society, 10.4% of the respondents reported exist in a solid and liquid form. Most of the respondents 33.3% reported the use of basket, 28.9% reported the use of covered metal or plastic bin, 10.4% reported all of the above. Most of the respondents reported that waste should not be dumped around the house. 54.4% reported that waste should be stored in the refuse bins. 57.6% reported that wastes should be dumped outside the house. Most of the respondents 59.4% reported that improper waste disposal can result in rodent and flies breeding, 52.9% of the residents reported that it could lead to flooding. 86.2% of the respondents could result in water-borne diseases (typhoid, cholera diarrheal).

Most of the respondents reported how waste should be finally disposed of; 75.8% reported it should not be left to decay into manure, 67.7% reported that the waste should be scattered on an empty land around. Most of the respondents 66.4% reported that liquid waste should not be reused for other purpose (flushing of toilets). Most of the respondents were correct that wastes should be left for waste collector to collect. Majority of the respondents did not report that waste water are constantly released from homes in form of backwaters from the toilets and sinks. More than half of the respondents 58.9% were correct that badly handled liquid waste is dangerous, as a spill could pollute waste table, ponds and rivers. 54.2% were correct that animal part can be processed into decorating materials or plates. 65.1% were correct that waste from



foods and farm lands can be compost and used as organic manure. 60.7% of the respondents were correct that polythene bags and plastic are non-degradable waste.

**Table 1: Analysis of Knowledge of Waste Disposal among residents**

**N=394**

<b>Knowledge of Waste Disposal</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage %</b>
<b>Meaning of Waste</b>	The useless and unwanted products derived from the activities of and discarded by society	160	40.9
	Materials that cannot be used by anybody	193	48.7
<b>Where can Waste can be stored</b>	Exist in solid and liquid form	41	10.4
	Covered metal or plastic bin	114	28.9
	Plastic bags	107	27.3
	Basket	132	33.3
	All of the above	41	10.4
<b>Should be dumped around the house</b>	No	233	58.9
	Yes	161	41.1
<b>Should be stored in refuse bins</b>	No	179	45.6
	Yes	215	54.4
<b>Should be dumped outside the house</b>	No	227	57.6
	Yes	167	42.4
<b>Rodent and flies breeding</b>	No	161	40.6
	Yes	233	59.4
<b>Flooding</b>	No	186	47.2
	Yes	208	52.8
<b>Water borne diseases ( typhoid, cholera, diarrhea)</b>	No	54	13.7
	Yes	340	86.3
<b>Should be left to decay into manure</b>	No	299	75.8
	Yes	95	24.2
<b>Should be scattered on an empty land around</b>	No	127	67.7
	Yes	267	32.3
<b>Liquid waste should be reused for other purposes.(flushing of toilets)</b>	No	261	66.4
	Yes	133	33.6
<b>Should be left for waste collector to collect</b>	No	154	39.1
	Yes	240	60.9
<b>Wastewater are constantly released from homes in form of backwaters from the toilets and sinks</b>	No	240	60.9
	Yes	240	60.9

### Research Questions one on The Level of Knowledge Waste Disposal Practice among Residents of Agege

This study asked 10 questions relating to the level of knowledge of waste disposal practice among residents of Alimosho. Maximum score obtainable is 32. Their level of knowledge of waste disposal practice was categorized as High (22-32), Average (12-22) and Poor (1-11). Majority of the respondents, 40.9% had high level of knowledge about waste disposal practice among the residents of Agege, 34.1% had poor level of knowledge, 25% had average level of knowledge of waste disposal practice.

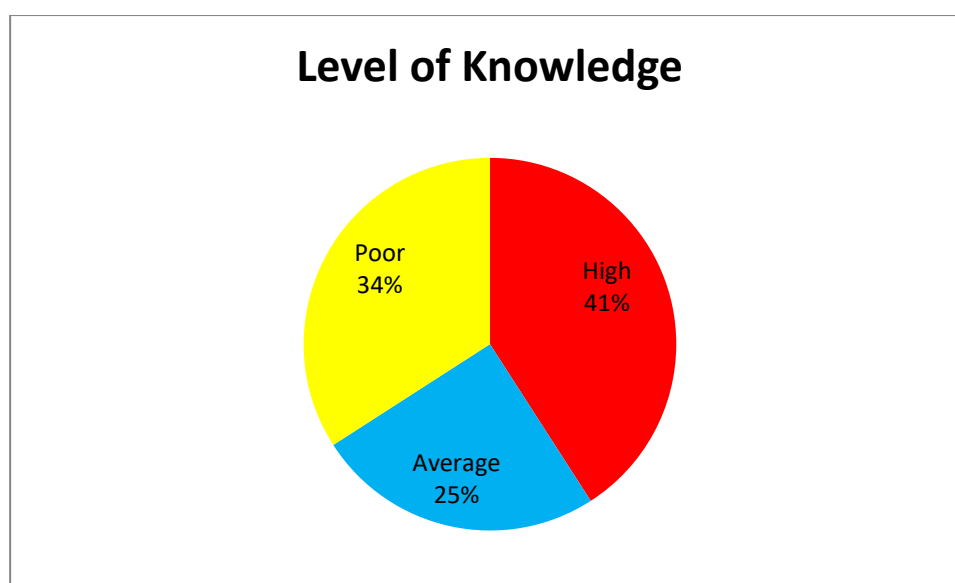


Figure1: Pie-Chart showing level of knowledge of waste disposal practice

### Attitude of the Respondents Towards Waste Disposal

The result of the analysis explained the attitudinal disposition of waste disposal among the residents. Majority of the residents 72.1% strongly disagreed that dumping of refuse in the drains, and open places is not bad, 53.1% strongly disagreed that participating in the cleaning of the environment is not important, 53.1% strongly agreed that improper refuse disposal can cause occurrence of environmental pollution, 42.4% strongly agreed that the use of refuse bins at home is a proper way of storing waste, 42.2% strongly agreed that engaging in the service of a waste collector is a waste of money.



**Table 2: Attitude of the Respondents Towards Waste Disposal****N=394**

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
Dumping of refuse in the drains, and open places is not bad	280 (72.1%)	0 (0%)	60 (15.1%)	54 (13.8%)
Participating in the cleaning of the environment is not important	209 (53.1%)	0 (0%)	113 (28.6%)	72 (18.2%)
Improper refuse disposal can cause occurrence of environmental pollution	0 (0%)	113 (28.6%)	72 (18.2%)	209 (53.1%)
Use of refuse bins at home is a proper way of storing waste	113 (28.6%)	0 (0%)	114 (28.9%)	167 (42.4%)
Engaging in the service of a waste collector is a waste of money	101 (25.5%)	127 (32.3%)	0 (0%)	166 (42.2%)

### Research Question Two on Attitudinal Disposition Towards Waste Disposal Practice

This study asked 5 questions on attitudinal disposition. Maximum score obtainable for each of the variable is 10. It has been categorised as Positive (5.0-10.0) and Negative (0-4.9). Table 3 showed that 70.8% of the respondents had positive attitude, and 29.2% reported negative attitude towards waste disposal practice in Agege.

**Table 3: Respondents' Categorization of Attitudinal Disposition towards Waste disposal**

Category	Frequency (F)	Percentage (%)
Negative (0-4.9)	97	29.2
Positive (5.0-10.0)	297	70.8
Mean $\pm$ SD	2.48 $\pm$ 1.30	

### Analysis of Perception of Waste Disposal among Residents

The result of the analysis explained the level of perception of waste disposal among the residents. Majority of the residents, 52.9% strongly disagreed that waste management policies of the local government, while 33.3% of the respondents strongly agreed that residents are responsible for the responsible for the problem of sanitation. 40.9% of the respondents strongly agreed that occurrence of flooding could be traced into indiscriminate waste disposal in the resident. 60.7% of the respondents disagreed that unsegregated dumping of waste causes serious environmental damage. Most of the respondent 42.4% agreed that improper liquid waste disposal pollute sources of waste for consumption. Majority of the respondents agreed that improper solid waste disposal could contaminate the environment.



**Table 4: Analysis of Perception of Waste Disposal among Residents  
N=394**

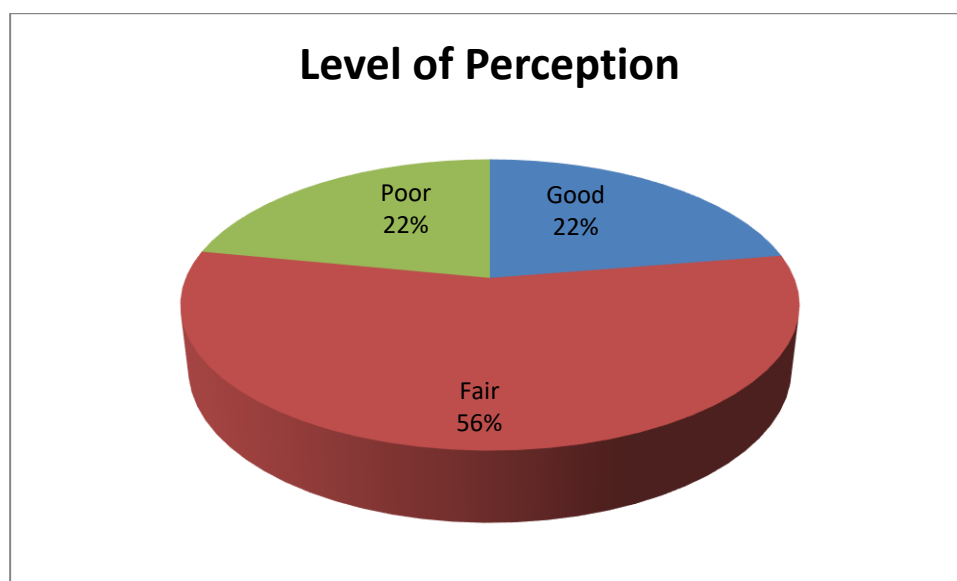
Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
The waste management policies of the local government are inadequate	208 (52.9%)	132 (33.3%)	0(0%)	54 (13.8%)
The residents are responsible for the problem of sanitation	41 (10.4%)	107 (27.3%)	114 (28.9%)	132 (33.5%)
Occurrence of flooding could be traced to indiscriminate waste disposal	60 (15.1%)	60 (15.1%)	114 (28.9%)	160 (40.9%)
Unsegregated dumping of waste causes serious environmental damage	60 (15.1%)	239 (60.7%)	0(0%)	95 (24.2%)
Improper liquid waste disposal pollute sources of water for consumption	79 (19.8%)	0(0%)	167 (42.4%)	148 (37.8%)
Improper solid waste disposal contaminates the environment	0(0%)	60 (15.1%)	180 (45.8%)	154 (39.1%)

### Research Question Three on the Level of Perception Towards Waste Disposal

This study asked 6 questions on each of the level of perception towards waste disposal. Maximum score obtainable for each of the variable is 20. It has been categorized as; Good (25-20), Fair (8-24) and Poor (1-7). 55.7% of the respondents had fair level of perception towards waste disposal, 22.4% of the respondents had good level of perception towards waste disposal while 21.9% had poor level of perception.

**Table 5: Summary of Level of Perception Towards Waste Disposal N= 394**

Category	level of Perception	Frequency	Percentage%
25-20	Good	89	22.4
8-24	Fair	220	55.7
1-7	Poor	85	21.9
<b>Mean =16.2, Std. Dev = 2.63</b>			



**Fig 2: Pie-chart showing level of perception towards waste disposal practice**

### Analysis of Waste Disposal Practice among Residents

Table 4.4.1 of the respondents indicated that 47.1% of the participants reported that sometimes they use coloured bags to dispose of different types of waste. 47.1% always dispose of sharp or infectious materials that are collected separately. 37.8% of the respondents reported to sometimes make use of receptacle/storage containers in my home. 56.3% reported that sometimes they use fluid contents and body waste is disposed appropriately. 56.3% reported to sometimes practise safe disposal of blades from homes. 45.6% reported not always using equipment that is disposed appropriately. 60.9% of the participants reported use of inclination of wastes is common in the community. 47.1% of the participants reported that they sometimes use chemical disinfection in their homes.

**Table 6: Analysis of Waste Disposal Practice among Residents N=394**

Waste disposal practice	Not at all	Not always	Always	Sometimes
I make use of colored bags used to dispose different types of waste.	94(24%)	0(0%)	114(28.9%)	186(47.1%)
I dispose sharp or infectious materials collected separately	101(25.5%)	0(0%)	186(47.1%)	107(27.3%)
I make use of receptacle/storage containers in my home	60(15.1%)	53(13.5%)	133(33.6%)	148(37.8%)
Used fluid contents and body waste are disposed appropriately.	60(15.1%)	19(4.7%)	201(51.3%)	114(28.9%)
I practice safe disposal of blades from homes	72(18.2%)	101(25.5%)	0(0%)	221(56.1%)
Used equipments are disposed appropriately	54(13.8%)	179(45.6%)	101(25.5%)	60(15.1%)



The inclination of wastes is common in the community	60(15.1%)	53(13.5%)	240(60.9%)	41(10.4%)
I sometimes use chemical disinfection in my home	95(24.2%)	60(15.1%)	53(13.5%)	186(47.1%)

This study asked 8 questions on each of the level of waste disposal practices among the residents. Maximum score obtainable for each of the variable is 36. It has been categorized as; Good (22-32), Average (12-22) and Low (1-11). Table 4.1.6b presented above showed that 56% of the residents had average waste disposal practice, 22.4% of the respondents had high level of waste disposal practice while 21.6% had low level of waste disposal practices.

**Table 7: Summary of Waste Disposal Practice N= 394**

Category	Waste Disposal Practice	Frequency	%
22-32	High	88	22.4
12-22	Average	222	56.0
1-11	Low	84	21.6
<b>Mean =22.4 Std. Dev = 3.86</b>			

### Test of Hypotheses

Three hypotheses were tested in this study to determine knowledge, perception, and health seeking behaviour towards waste disposal practices. In testing these hypotheses, Pearson correlation analysis and linear regression was conducted at 0.05 level of significance. The decision rule was that if the p-value computed was less than or equal to 0.05, the null hypotheses will be rejected in favour of the alternative hypotheses and vice versa.

*H<sub>A1</sub>: There is no significant relationship between knowledge and waste disposal practices among residents of Agege Local Government Area Lagos State.*

### **Relationship Between Knowledge and Waste Disposal Practices**

The result of Pearson bivariate correlation analysis showed a strong positive significant relationship between knowledge and waste disposal practice ( $r = 0.18^{**}$ ,  $p = 0.007$ ). A further regression analysis showed that knowledge contributed 15.5% to respondents' waste disposal practice. Hence, the null hypothesis is hereby rejected in favour of the alternative hypothesis.

**Table 8: Pearson Bivariate Correlation Showing Relationship Between Knowledge and Waste Disposal Practice**

Knowledge	Pearson correlation ( $r^2$ )	Sig. (2 tailed)
Waste Disposal Practice	0.18**	0.007.

*H<sub>A2</sub>: There is no significant relationship between attitudinal disposition and waste disposal practice among residents of Agege Local Government Area Lagos State.*



### ***Relationship Between Attitudinal Disposition Towards Waste Disposal Practice***

The result of Pearson bivariate correlation analysis showed a strong positive significant relationship between attitudinal disposition and waste disposal practice ( $r = 0.29^{**}$ ,  $p < 0.001$ ). A further regression analysis showed that attitude contributed 10.2% to respondents' waste disposal practice. Hence, the null hypothesis is hereby rejected in favor of the alternative hypothesis.

**Table 9: Pearson Bivariate Correlation Showing Relationship Between Attitude and Waste Disposal Practice**

Attitude	Pearson correlation ( $r^2$ )	Sig. (2 tailed)
Waste disposal practice	0.29**	< 0.001.

**Table 10: Regression Analysis Showing the Association Between Attitude and Waste Disposal Practice**

Model	R	R Square	Adjusted R <sup>2</sup>	B	Beta	p
1 Attitude Disposition	0.294 <sup>a</sup>	.086	.082	0.61	0.29	<0.001

*H<sub>A3</sub>: There is no significant relationship between perception and waste disposal practices among residents of Agege Local Government Area Lagos State.*

### ***Relationship between Perception and waste disposal practices***

The result of Pearson bivariate correlation analysis showed a strong positive significant relationship between perception and waste disposal practice ( $r = 0.44^{**}$ ,  $p < 0.001$ ). A further regression analysis showed that perception contributed 18% to respondents' waste disposal practice. Hence, the null hypothesis is hereby rejected in favor of the alternative hypothesis.

**Table 11: Pearson Bivariate Correlation Showing Relationship between Perception and waste disposal practice.**

Perception	Pearson correlation ( $r^2$ )	Sig. (2 tailed)
Waste disposal practice	0.44**	< 0.001.

## **DISCUSSION OF FINDINGS**

Waste disposal practice is still a major problem in low and middle income countries like Nigeria and Agege community is not left out in the struggle for a clean and neat environment. The majority of the respondents 60.7% are female, 52.3% of the respondents are between the ages of 31-35 years, 15.6% are between the ages of 15-60 years. Most of the participants are predominantly from the Yoruba ethnic group. Majority of the residents are traders. Findings of Adesola (2018) showed that most residents in Nigeria during the National Demographic Health survey are above the age of 18 years with an average of over 36 years. Furthermore, Tinuoye



(2019) reported average income from a household in a community-based study of waste management indicates that less than 100,000. The result is also in tandem with the findings of Ademinkanra (2019) reported that most households presented in primary health care centres are predominantly from the Yoruba tribe.

The result of research question one indicated that the majority of the respondents, 40.9% had a high level of knowledge about waste disposal practice among the residents of Agege, 34.1% had a poor level of knowledge, 25% had average level of knowledge of waste disposal practice. The result corroborates with the findings of Chen (2019) that appropriate waste disposal practice is still at the infancy in most developing countries. However, the impact of laws and policies has improved the increasing practice level of waste disposal among the residents in the region. The result is also support of Botterill's (2018) study in sub-saharan African countries that paucity of resources prevents the implementation of waste disposal for the benefit of the citizens. The result of research question two showed that 70.8% of the respondents had a positive attitude, 29.2% reported a negative attitude towards waste disposal practice in Agege.

The result of research question three showed that 55.7% had a fair level of perception towards waste disposal, 22.4% of the respondents had a good level of perception towards waste disposal while 21.9% had a poor level of perception. The result of the analysis in tandem with the findings of Da Silva et al. (2015) developed that good level of perception towards appropriate waste disposal among residents of urban communities where there are laws and policies to protect waste management practices. The result is also consistent with the findings of Coker (2019) that there is a positive perception towards ensuring good and appropriate waste disposal in local communities of Nigeria. Similar study was reported in Lagos metropolis by Sridhar and Ayeni (2015) on infection potential of waste from selected communities in Ibadan and Coker (2019) on the characterization and disposal of solid wastes in Ibadan. Longe and Williams (2016) examined medical waste disposal in Ibadan and in Lagos metropolis. Ngwuluk (2019) followed the same path in their study of waste disposal in manufacturing companies in Jos metropolis. Bassey (2016) also studied the characterization of solid wastes in the Federal Capital Territory, Abuja, Nigeria.

The result of the level of waste disposal practice showed 56% of the residents had average waste disposal practice, 22.4% of the respondents had high level of waste disposal practice while 21.6% had low level of waste disposal practice. This corroborates the findings of Ngwika (2019) that there is generally average level of compliance with waste disposal practice in low and middle income countries, if indeed the handlers were being trained, then the training was inappropriate and had not been impacted on their skills and knowledge of the personnel. The study recommended that all workers should be trained and retrained without any exception in the hospitals, in order to create awareness of waste, its effects, importance of guidelines and implementation of the waste disposal options for the different categories of waste. Mokuola (2019) conducted a cross sectional study in Abuja, and revealed that there was no segregation of healthcare waste at source, no colour coding but hospital use locally built brick incineration and others. The result corroborated the findings of Jarup (2017) who found no excess risk of giving birth to a child with Downs syndrome in the population residing near 6,289 landfill sites in England and Wales. Some of the reports that have shown high relative risks (RR) for congenital anomalies did not take into account important confounding factors. In the case of the Nant-y-Gwyddon landfill site in the UK, Fielder (2017) failed to take into account that the local residents had been also exposed to the emissions from highly polluting local incinerators well before the landfill operation started (Roberts, 2019).



## CONCLUSION

Poor waste disposal practice has negative health implication on every individual in the society especially in countries where there is effective policy directive and structured method enforcing good waste disposal practice. Although there are several institutional structures to address waste accumulation and associated health hazards exist, peculiar implementation lapses due to some logistic and restrictive administrative bottlenecks sometimes make them ineffective. The study established that the majority of the respondents had a high level of knowledge about waste disposal practice among the residents of Agege. Majority of the participants had a positive attitude towards waste disposal practices. Majority of the participants also had a fair level of perception towards waste disposal. Additionally, 56% of the residents had average waste disposal practice.

## RECOMMENDATIONS

The study recommends that:

1. There is a need for awareness campaign about good waste disposal practice among workers of the residents of Alimosho community.
2. Residents of sub-urban communities like Alimosho needs to be motivated to practice and promote good sanitation practices.
3. The government should provide more infrastructural facilities to improve waste disposal practices in the community.
4. As highlighted, the toxic effect ink as hazardous waste could have on human and the environment after prolonged exposure to the substance, it is therefore recommended that there is a need for adequate awareness and the introduction of technology to deal with the menace, as this is lacking and deserves immediate attention.

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