

## Knowledge Attitude and Practices of Refuse Disposal in Abakaliki South East Nigeria

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**Abstract:** Waste management is a global growing concern with public health consequences. In a developing country as ours, environmental laws are not entrenched and implemented. This makes improper waste disposal one of the important problems in many societies. Twenty-nine women of child bearing age were interviewed using self-administered cross sectional questionnaire to ascertain their knowledge, attitude and practices of refuse disposal in Abakaliki. About 10.0% of the respondents do not agree that improper waste disposal could cause disease. 17.2% feel that putting refuse in bodies of flowing water is a way to dispose them, while another 10.0% do not agree that wrong disposal can cause flooding. Considering that the respondents had either secondary or tertiary education, this is a source of concern. Public education through radio jingles, seminars and workshop is necessary to fill these gaps in knowledge.

**Keywords:** Waste management, wrong disposal, diseases.

### INTRODUCTION

Waste is a general term covering all types of refuse resulting from living activities of humans and other animals [1]. Refuse is man-made. It is anything no longer valued by a person who then disposes it. Refuse is generated daily from all aspects of human activity, like recreation, cooking, and serving of food and cleaning of service items or the rubbish accruing from such activities [1].

Improper disposal of refuse is conducive to the spread of disease. These diseases include dysentery, typhoid fever, leptospirosis, cholera, plague and infectious hepatitis and Lassa fever [1]. They are contacted by ingestion of contaminated food or water or can be transmitted by insect vectors whose principal hosts are rodents. Proper treatment and disposal of wastes will aid in these disease control because conditions created by improper disposal provide food and habitation for these hosts.

Waste management is a global and growing concern and improper waste management are related to lack of financial management and logistics, disregard for aesthetics, population growth and urbanization including industrial and commercial growth and sociocultural practices and perception [2, 3]. In the developing country, the major drawback on waste management is ineffective waste collection strategies and the lack of disposal sites [4].

People litter on property that does not belong to them e.g. public roads, rivers or whenever they think other people will clean up behind them e.g. environmental sanitation collectors or wherever litter is already present e.g. vacant lots or piece of land. The volume of waste generated is directly related to the population density.

Uchegbu [5] in Lagos pointed out that two-third of its gutters have become free range – part dumping grounds, part peeing and part defecation with its attendant health problems. This scenario is not far-fetched with what is obtainable in Abakaliki.

Falomi [6] in 1995 identified two broad categories of attitude; the unconcerned elite who have an out-of-sight, out of mind attitude towards pile of waste, which they drive pass on streets enroute their offices and the ignorant poor who have an attitude of helpless resignation to living with the filth [6].

In Conakry Guinea, Keita Mamady [7] found that no education, income and females were independently associated with indiscriminate waste disposal. He also cited that residential area and residents' distance to an approved dumpsite are geographic risk factors.

In a review of knowledge, attitudes, and practices on solid waste management among undergraduates students in a Philippine state University, Eveth P. Barloa *et al.* [8] found that most students have satisfactory levels of knowledge and attitude while less than half of the studied population showed satisfactory level of practice.

In his study to determine the knowledge attitudes and practices associated with waste management in Jos south metropolis, Nigeria, Audu A. Jatau [9] using a self-developed knowledge, attitude and practices questionnaire associated with waste management noted that respondents with higher level of education had correct level of knowledge of the impact of improper waste management on health than those with lower level of education. He also discovered that the level of education had a statistical significant influence on knowledge of waste management. He recommended promulgation and enforcement of waste management policies at all levels of government. They also recommended promotion of knowledge on waste management through workshop, seminars and conferences and sponsorship of individuals to undertake community based projects on knowledge, attitudes and practices associated with waste management[9].

In a descriptive cross sectional survey using households as sampling units in Nairobi Kenya, Njagi

JM. *et al.* found that residents possessed a significantly low knowledge but a positive attitude towards the studied dumpsite. There were however no difference in risk perception. They recommended health education programmes on the dangers of uncontrolled waste disposal sites [10].

Various studies have been done on waste management in different parts of Nigeria but none has been done in Ebonyi State South East Nigeria, this study aims to determine the knowledge, attitude and practice of waste disposal in Abakaliki, Ebonyi state.

**MATERIALS AND METHODS**

Ebonyi state was created in 1996 from the former Enugu and Abia states. It covers an area of about 5,935 square kilometer [11]. It has 13 local government areas, one urban, one semi-urban and the remaining rural. This tilts the population in favour of low literacy level, low income group and an agrarian society especially in the rural areas. With urbanization and migration, the capital tends to have an inverse population profile compared to the rural areas.

This prospective study was conducted using a structured questionnaire which was administered to women during an informal gathering. A total of 29 questionnaires were administered and retrieved. Refusal to give consent was the exclusion criteria. Using the questionnaire, the biodata and sociodemographic characteristics of the participants were obtained. Specific information on knowledge, attitudes and practices were also collected.

Data was analysed using the Epi info version 7 of the Centre for Disease Control (CDC), Atlanta.

**RESULTS**

**Table-1: Biodata of respondents**

Age			Parity			Level of Ed		
No	%		No	%		No	%	
15-24	1	3.5	0-1	14	48.3	pri	-	-
25-34	23	79.3	2-4	13	44.8	sec	4	13.8
35-44	5	17.2	5 or more	2	6.9	ter	25	86.2

Ed: Education, Pri-Primary, Sec-Secondary, Ter-Tertiary

**Table-2: Improper disposal of refuse can cause disease**

Strongly disagree	2	6.9
Disagree	1	3.4
Doubtful	-	-
Agree	5	17.2
Strongly agree	21	72.4

**Table-3: Putting refuse in bodies of flowing water is a way to dispose them**

Strongly disagree	16	55.1
Disagree	7	24.1
Doubtful	1	3.5
Agree	2	7.0
Strongly agree	3	10.3

**Table-4: Government should be paid to dispose refuse**

Strongly disagree	4	13.8
Disagree	9	31.0
Doubtful	1	3.5
Agree	7	24.1
Strongly agree	8	27.6

**Table-5: Homes without a proper disposal avenue should be sanctioned**

Strongly disagree	1	3.5
Disagree	4	13.8
Doubtful	1	3.5
Agree	12	41.3
Strongly agree	11	37.9

**Table-6: It is better to leave refuse exposed until they are ready for disposal**

Strongly disagree	-	-
Disagree	9	31.0
Doubtful	-	-
Agree	-	-
Strongly agree	20	69.0

**Table-7: In the absence of a disposal team, refuse should be discarded in flowing rivers to be carried away**

Strongly disagree	19	65.5
Disagree	7	24.0
Doubtful	-	-
Agree	3	10.0
Strongly agree	-	-

## DISCUSSION

All distributed questionnaire were filled and returned. Most of the respondents were in the age range of 25-34 years. Most had tertiary education. Twenty one (72.4%) of the respondents strongly agrees that improper disposal of refuse can cause disease while two respondents strongly disagree. This shows that the respondent's knowledge on the health implication of improper refuse disposal is high. This agrees with the study in Jos, Nigeria by Audu A. Jatau [9] and also correlates well with what was reported in Conakry, Guinea by Keita Mamady *et al.* [7].

With respect to putting refuse in bodies of flowing water as a way of disposing them, 16 (55.1%) strongly disagree, while 3 (10.3%) strongly agree that it is proper with 74% and 27% confidence interval respectively.

There are varied opinions as to whether the government should be paid to dispose refuse. 24% of the respondents agreed while 31% disagreed. 27% strongly agreed while 13% strongly disagreed. This seems to reflect the varied public opinion on whose primary responsibility it is to dispose refuse and whether this disposal should be paid for. Most respondents either agreed or strongly agreed that homes without a proper disposal avenue should be sanctioned.

Most respondents also agreed or strongly agreed that refuse should be put in an airtight bag or container. This will help reduce contact with vectors and rodents and hence reduce the incidence of contamination of food and water.

All respondents either disagreed or strongly disagreed that refuse should be left exposed till they are ready for disposal. Except for 10% of the respondents all the others either disagreed or strongly disagreed that refuse should be discarded in flowing rivers to be carried away

## CONCLUSION

Although most of the respondents have adequate knowledge on how to handle household refuse they still have the wrong attitude and practice toward its disposal. This has gross negative impact on the overall health system.

When waste is disposed properly, the community and the populace benefit, because healthy clean environment as well as improved safe and secure surrounding especially for children are ensured.

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