

**ATTITUDE AND WASTES DISPOSAL HABITS OF STUDENTS OF NWAFOR ORIZU
COLLEGE OF EDUCATION NSUGBE**

BY

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Abstract

One of the threats to public health is inefficient management of wastes. The indiscriminate dumping of wastes is unsightly and predisposes people to diseases. This study determined waste disposal habits of on-campus students of Nwafor Orizu College of Education Nsugbe. Two research questions and two null hypotheses guided the study. Adopting a descriptive survey research design, a sample frame of 400 students was drawn through simple random sampling. A twenty-item structured questionnaire was used to collect data, which were analyzed using descriptive statistics of percentage and inferential statistics of chi-square (X^2). The results of the study revealed that students have negative waste disposed habits. A significant difference was found to exist between male and female students in their waste disposal habits. Likewise, students of various ages differed significantly in their waste disposal habits. Based on the findings, it was recommended, among others, that NOCEN management, lecturers and other agencies should mount campaigns aimed at inculcating the habit of cleanliness in students and members of the public.

Introduction

Indiscriminate waste disposal has generated health problems for human beings. Wastes are either combustible or non-combustible. They can be classified by their physical, chemical or biological characteristics, as well as by their consistency, and they are found within an environment (Daniel, 1993). Wastes can be generated from industrial and agricultural outputs, households and hospitals (medical wastes). Basis (2004) identified three types of wastes by their consistency: solid, liquid and gaseous wastes. Solid wastes are waste materials that contain less than 70 percent water; these include garbage (food wastes), rubbish (paper, plastics, wood, metal, used containers, glass), demolished products (bricks, masonry, and paper), sewage treatment residues (sludge and solid from domestic sewage), as

well as discarded materials. The output of daily waste depends on dietary habits, lifestyles, living standards and the degree of urbanization and industrialization (Smith, 2003).

Liquid wastes are usually wastewater that contain 1% solid. Such liquid wastes may contain high concentration of salt and metals. Gaseous waste is the presence in the atmosphere of substances generated by the activities of man in such a concentration that interfere with health, safety and comfort of man, animals and vegetation.

Wastes in most institutions of learning include liquid wastes, solid wastes, sludge and minor gaseous wastes. There is need for effective disposal of these wastes in order to promote healthy living. Olokor (2000) defined wastes disposal as a cost-effective protection of people and environment in compliance with government regulations. Waste disposal can equally be viewed as the collection, transportation and final treatment of wastes in such a way that they are no longer injurious to the health of the people and the environment. Current waste disposal methods are: dewatering and back-filling of reserved pit, chemical fixation or solidification, land disposal sites, incineration, burning and microbiological treatment (Anderson, 2003; Jackson and Lane, 2000; Oloikor, 2000). Properly disposed wastes help in preventing the transmission of diseases, maintaining the aesthetic value of the environment, preventing waste contamination and air pollution among other values.

However, effective disposal of wastes can be hindered by inadequate fund, the lack of knowledge of health hazards resulting from improper disposal of wastes, indifference and negative attitude, inadequate facilities and equipment, as well as misuse of waste disposal facilities. Unsanitary disposal of wastes of any kind can lead to spread of diseases (Sofoluwe and Bennett, 1995). Misuse of sanitary facilities and equipment equally predispose people to infections of various magnitudes. Indiscriminate defecation may affect drinking water, and this may cause sporadic outbreaks of diseases, such as cholera, diarrhoea and typhoid fever, among others.

According to Wright (1996), poor handling of refuse in full public view is usually an eyesore. There can be depreciation in the value of a property near a badly kept heap or along routes frequented by inadequately covered refuse bins. Poorly disposed refuse can lead infestation by flies and cockroaches, as well as rats. Rats, insects and birds are known to be carriers of diseases under certain circumstances. Accumulation of garbage and refuse that have been poorly handled often serve as breeding places for vermin, as well as produce bad smell and unsightly dumps (Oluwande, 1997).

The upsurge in student population has put a lot of pressure on available waste disposal facilities and equipment in tertiary institutions. Oluwande (1997) has observed that the sanitary conditions in most educational institutions in Nigeria are generally poor. Careless dumping of refuse is a common practice in most of the institutions. This has led to heaps of refuse competing for space with physical structures. Sometimes, fresh excreta are found within and around hostels and lecture halls in some tertiary institutions. The stench from these wastes pollutes the air. Besides, various solid wastes litter the environment, making the surroundings filthy and an eyesore. Such surroundings can become sources of infection. It should be noted that the quality of life on a residential campus depends heavily on the state of the environment. For academic activities to flourish, a healthy environment is essential. Also, the state of the environment profoundly influences the impressionable minds of students, in that it shapes their attitudes towards healthy living. In fact, residential educational institutions should ideally set the trend in environmental upkeep of organized human habitations and serve as role models for the township to emulate.

Good health is totally incompatible with improperly disposed wastes. The indiscriminate dumping of refuse is a great concern because this can cause ill health or serve as a medium for

harmful organisms. A healthy environment facilities learning; hence, this study ascertained the attitude and habits of students to wastes disposal.

Purpose

The purpose of the study was to ascertain studentsø attitude and habits towards wastes disposal.

Hypotheses

The following null hypotheses were postulated for the study:

1. There is no significant difference between male and female in-campus students of NOCEN in their attitude and habits towards waste disposal.
2. There is no significant difference between in-campus students of various ages in NOCEN in their attitude and waste disposal habits.

Methods

The descriptive survey research design was used for the study. The population of the study comprised of full-time students of NOCEN, for the 2008/2009 academic session. The 400 students were randomly selected from eight student hostels in the college. A twenty-item structured self-developed and validated questionnaire, with correlation coefficient of 0.91, was used as research instrument. Trained research assistants helped in data collection and a return rate of 98.25 percent was obtained.

Results

The results of the data analysis are shown in tables 1 to 4.

Table 1: Frequency distribution of Solid Waste Disposal Actions of In-Campus Students

	Solid wastes disposal habits	Agree	Disagree
1	Littering the hostels with waste papers without feeling bad.	213(54.2%)	180(45.8%)
2	Littering the surroundings with polythene bags/sachet water packs.	229(58.3%)	164(41.7%)
3	Indiscriminately littering of the surrounding with empty cans, and bottles.	220(56%)	173(44%)
4	Barbing/plaiting within the hostel and littering the environment with hairs and weave-on.	210(53.4%)	183(46.6%)
5	Littering the hostel environment with old clothes/mattresses.	228(58%)	165(42%)

Table 2: Frequency Distribution of Liquid Waste Disposal Habits of In-Campus Students of NOCEN

	Solid wastes disposal habits	Agree	Disagree
1	Liquid wastes disposal habits	270(68.7%)	123(31.3%)
2	Defecating indiscriminately around the hostel environment with the bags.	203(51.75)	190(48.3%)
3	Indiscriminate urination within the hostel environment	215(54.7%)	178(45.3%)
4	Indiscriminate urination around the halls and laboratories	207(52.7%)	186(47.3%)

Table 3: Chi-square Analysis of Waste Disposal Habits of NOCEN Students Based on Gender

Response to waste disposal habits	Gender		
	Male	Female	Total
Agree	30(20.4%)	122(31%)	202(51.4%)
Disagree	120(30.5%)	71(18.1%)	191(48.6%)
Total	200(50.9%)	193(49.1%)	393

$X^2 = 59.9 > X^2_{.05} = 3.841, df = 1, P < .05.$

Table 4: Chi-square Analysis of Waste Disposal Habits of NOCEN Students Based on Age

Response to waste disposal habits	Less than 20 yrs	21-25yrs	26-30yrs	31yrs and above	Total
Agree	20(5.1%)	53(13.5%)	78(19.8%)	51(13%)	202(51.4%)
Disagree	15(2.8%)	25(6.4%)	102(26%)	49(12.5%)	191(48.6%)
Total	35(8.9)	78(19.8%)	180(45.8%)	100(2.5%)	393

Table 5: Attitude and Wastes Disposal Habits of Students of Nwafor Orizu College of Education

...ide littering the hostels and classrooms with wastepaper (54.2%). However, 45.8% of the population disagreed with this notion. An appreciable number (58.3%) of the respondents agreed that they litter the college environment with polythene bags/sachet water packs; whereas 41.7 percent of them disagreed with this. On the act of indiscriminately throwing empty cans within and outside the hostel, 56 percent of the respondents agreed, while 44 percent of them disagreed. About 53.4% of the students agreed that they cut/plait their hair within the hotels, thereby littering the environment with hairs and weave-on, while 46.6 percent disagreed.

In table 2, about 68.7 percent of the total respondents agreed that students defecate indiscriminately around the hostel environment, while 31.2 percent disagreed. Students' habit of defecating in polythene bags and throwing same within the hostel environment was supported by 51.6 percent of the respondents, while 48.4 percent disagreed with the presence of such habit. On the issue of urinating indiscriminately within the hostel, 54.7 percent of the respondents agreed, while 45.3 percent of them disagreed. Furthermore, 52.6 percent agreed that students urinate indiscriminately around the lecture halls and laboratories, while 47.4 percent of them disagreed.

Table 3 presents chi-square analysis of waste disposal habits of the respondents, based on gender. The results revealed that there was significant difference between male and female in-campus students of NOCEN, in their waste disposal habits. Likewise, table 4 disclosed that there is significant difference among in-campus students of various ages in their waste disposal habits.

Discussion

The results of the study revealed that 51.4 percent of the respondents agreed to poor waste management habits, while 48.6 percent disagreed. This shows that students' habits toward waste disposal are negative. The results is contrary to the expectations of the researcher, who had anticipated positive habits towards waste disposal, because of increasing information, education and communication campaigns. Students' negative habits predispose them and others in the environment to hazards. Gleen (2003) argued that human actions and habits can either be positive or negative, and that each action has its consequence. Sofoluwe and Bennet (1995) confirmed that negative habits towards waste disposal predispose people to faeco-oral diseases, such as typhoid fever and diarrhea. Thus, the general negative attitudes toward waste disposal, as revealed by this study, call for intervention, in the form of improved awareness campaigns about the implications of poor waste disposal.

Gender was found to influence the waste disposal habits of the respondents. The findings are in line with Mori (2002), who posited that gender issues have significant influence on the way society assigns responsibility to individuals. According to First (2005), women are more likely to dispose domestic wastes appropriately than men. In most homes, the females are groomed to handle chores more than their male counterparts.

Ages of the respondents were also found to influence waste management habits. Thus, a significant difference exists among respondents of various ages, with regard to their waste disposal habits (table 4). This was expected, as it is common knowledge that maturity enhances knowledge, positive behavior and habits. This finding is in line with that of Park (2002) in Ogundele (1997), who opined that adequate disposal of wastes among individual increase with age and is highest among individuals aged 26 years and above.

Conclusion and Recommendation

Adequate management of wastes is necessary for the health of individuals and the community. Hence, a clean environment promotes good health, while a filthy environment is a threat to good health. Apart from the fact that littering the environment with wastes is unsightly, the dirt produces a stench that predisposes individuals to infections.

This study revealed that there is need for effective education of students and staff of NOCEN, on healthy waste disposal strategies. Specifically, there should be massive education campaign by health and allied educators at various educational levels, to enlighten members of the academic community on the importance and modes of keeping a clean environment. Curriculum and education planners should develop and enforce the teaching of courses that emphasize good health habits, particularly as regards environmental cleanliness at all levels of education in Nigeria. Media and peer education should be carried out with renewed vigor by government and non-government agencies on the importance of maintaining a clean environment through adequate waste disposal.

The managements of NOCEN should, in collaboration with the Department of Health and Physical Education, periodically organize in-house seminars and interactive sessions with students on appropriate waste disposal measures. There is also need for the management of NOCEN to adopt waste recycling strategy with paper and plastic manufacturing industries as well as fertilizer blending factories, as these would go a long way in reducing the quantity of waste streams in the institution. The college health services, in addition to producing data/records on diseases and infections related to poor management of wastes, should organize seminars and workshops for students and other members of the college's community on waste disposal strategies.

Above all, adequate waste management facilities and equipment should be provided by the Parents' Management Association (PMA) at strategic places in the institution, for proper disposal of wastes.

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