
Factors Influencing Students' Participation in Environmental Sanitation

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Abstract: Background: Waste disposal, refuse disposal as well as inadequate water supply are problems in our environment especially in institutions. It may be caused by a lot of factors. These include neglect of the operation and maintenance of health facilities, lack of hygiene education for the students, non-existence or insufficient water supply, poor sanitation and inadequate hand washing facilities, dirty and unsafe water supply, toilets or latrines that are not adapted to the needs of the students as well as unhealthy and dirty classrooms/school compounds. These factors have led to the consequences on students' health. Objective: The study aimed at investigating factors that affect students' improvement of the sanitary condition of their halls of residence in University of Benin, Ugbowo campus. Method: To guide this study, two (2) research questions were raised. For the instrument used by the researcher in carrying out the study, it was a questionnaire and it was administered to 220 respondents. Result: The study discovered that most students believed that they can dispose waste anywhere aside the designated collection points, and that for the purpose of collection and transportation of wastes, it is imperative that students' residents should make use of waste bins. Conclusion: It was concluded that some perceived factors affecting students' improvement of the sanitary condition of their halls of residence include: non-chalant attitudes of student, also that most students feel it is humiliating for them to tidy their surroundings, most students usually do not have enough time due to academic workload coupled with the inadequate water facilities in the hostel, and further added that the lack of supervision by the hostel porter coupled with the bad habits of students in the hostel. Based on the findings of the study, it was recommended by the researchers that the school management should provide refuse receptacles in large quantity and place them at intervals but very close within the hostels among others.

Keywords: Environmental Sanitation, Students, Infectious Diseases

1. Introduction

Waste is generated from numerous human activities. In the light of this, Ogwueleka (2009); Ishak and Dadson (2014) asserted that environmental sanitation, through waste management is a global and growing concern and improper waste management are related to disease infestation disregard for aesthetics [7, 8]. Also in a study by Reyes and Furto (2013), it was discovered that the major setback in developing countries on environmental sanitation is ineffective waste collection strategies and the lack of disposal sites. Licy, Vivek, Saritha, Anies and Josphina (2013) also stated that while most people are aware of the negative impacts of mismanaged waste on the environment; their perception and insufficient environmental knowledge impede

on their participation on environmental sanitation [6].

Solid waste is an unavoidable by-product of human activities. It maybe regarded as any rejected material resulting from domestic activities and industries operation for which there is no economic demand and thus must be disposed. Economic development, urbanization and improved living standards in cities increase the quantity and complexity of generated municipal solid waste (MSW). A clean environment influences good health and improve quality of human's life. Proper waste disposal is important for protection of environment. Therefore, the school as an institution of learning can be of great help in addressing the solution of such environmental dilemma. Inadequate sanitation is a major cause of infectious diseases such as cholera, typhoid and dysentery worldwide. It also contributes

to stunting and impaired cognitive function and impacts on well-being through school attendance, anxiety and safety with lifelong consequences, especially for women and girls. Improving sanitation in households, health facilities and schools underpins progress on a wide range of health and economic development issues including universal health coverage and combating antimicrobial resistance.

Appropriate management and proper disposal of waste are problems that various cities in Nigeria face [9, 10]. Despite this, the pollution in the environment associated with indiscriminate waste disposal has serious negative impacts on public health and safety [11, 12].

Sanitation refers to all conditions that affect the health of people in a geographical area. Billions of people still live without access to sanitation facilities and are unable to practice such basic hygienic practices as washing their hands with soap and water. According to Gates Foundation (2010), the world needs for basic sanitation services (like drinking water supply, excreta and waste disposal) have greatly increased as a result of rapid population growth and highly expectations [2]. Meanwhile a range of sanitation technologies and approaches exist, some examples are community-led total sanitation, container-based sanitation, ecologist sanitation, emergency sanitation, environmental sanitation, onsite sanitation and sustainable sanitation. A sanitation system includes the capture, storage, transport, treatment and disposal or reuse of human excreta and waste water. Reuse activities within the sanitation system may focus on the nutrients, water, energy or organic matter contained in excreta and waste water. This is referred to as sanitation value chain or sanitation economy. Lack of access to sanitation has an impact not only on public health but also on human dignity and personal safety. For example, diarrhea, a main cause of malnutrition and stunted growth in children can be reduced through sanitation. There are many other diseases which are easily transmitted in communities that have low levels of sanitation such as ascariasis (a type of intestinal worm infection or helminthiasis) cholera, hepatitis, polio, schistosomiasis, trachoma, amongst others [5].

Sanitation is very essential in every institution and works of life. It is ideal to be carried out in homes, offices, schools, market places etc. to enhance a better lifestyle and level of living. Sanitation in schools cannot be overemphasized as it determines the wellbeing of thousands of individuals from different homes and background. A university is an institution where high level of environmental sanitation should be observed. According to Danida (2007), the promises of school health and hygiene education programme have not been fulfilled by either the government or stakeholders in education [1]. Many school environments in most institutions are not safe for students due to neglect of the operation and maintenance of health facilities. Danida further states that schools often suffer from non-existent or insufficient water supply, sanitation and hand washing facilities, dirty and unsafe water supply, toilets or latrines that are not adapted to the needs of the students particularly girls, non-existence of hygiene education, unhealthy and dirty

classrooms/school compounds amongst others. Also, lack of sanitation, unsafe disposal or storage of waste and in undesignated containers may provide habitats for vectors of diseases including typhoid fever and diarrhea [3].

In a review by Sanni (2015) on some Federal universities, they stated that the rot in Federal universities is taking a toll on the hostels in the National Ivory towers [4]. Besides being over crowded, many of the hostels lack basic amenities. The Sanni (2015) investigations in some Federal Universities across the country revealed that many of the hostels were filthy and the taps in the toilets and bathrooms were dry [4]. It was gathered that despite the poor conditions of the hotels, students thronged them because of the rising rent in most university town in Nigeria. It was reported that there was overcrowding in the hostel which led to over population resulting to pressure on the hostel facilities. In this case however, the University of Benin cannot be said to be free from such situation and occurrence in their student's hostel of residence.

Sanitation in the student's hostel is a combined effort and duty of the school, the personnel in charge and the students residing in the hostels. However, though efforts are being made by the school and concerned personnel, it is however noted that most students residing in the hostel or not, contribute to the unsanitary condition of the various hostels. This is due to various factors on the students and the school authority which makes the students unable to practice good sanitation or not interested in practicing it, or in some cases unaware of the sanitary practice and how they can carry it out effectively. It is against this background that the researcher felt the need to investigate the perceived factors affecting student's improvement of the sanitary condition of their halls of residence in University of Benin, Ugbowo Campus.

1.1. Statement of the Problem

Waste disposal, refuse disposal as well as inadequate water supply are problems in our environment especially in institutions. It may be caused by a lot of factors. These include neglect of the operation and maintenance of health facilities, lack of hygiene education for the students, non-existence or insufficient water supply, poor sanitation and inadequate hand washing facilities, dirty and unsafe water supply, toilets or latrines that are not adapted to the needs of the students as well as unhealthy and dirty classrooms/school compounds. These factors have led to the consequences on students' health.

However, it is not clear on the extent in which school management have contributed in curbing poor sanitation practices. A lot of literature available talks about environmental sanitation strategies but most of them have not been done in a wider community and not in hostels of residence in various institutions of learning [4]. Therefore, the study seeks to find out the factors that prevent students from improving the sanitary condition of their halls of residence in University of Benin, Ugbowo campus.

1.2. Research Questions

This study will be guided by the following research questions:

- 1) What are the perceived factors affecting students improvement of the sanitary condition of their halls of residence in University of Benin, Ugbowo campus?
- 2) What are the strategies that could be employed to improve the sanitation in University of Benin, Ugbowo campus?

2. Method of the Study

The research design that was used for the study was descriptive survey research design. The population of the study comprised the full-time undergraduate students residing in the halls of residence in Ugbowo campus. The population consists of 7,360 students. The sample size of this study consist of 220 respondents which were selected using simple random sampling technique the nine halls of residence. The research instrument used in this study was a structured questionnaire. The instrument was validated by three experts in the

department of health, safety and environmental education. In the process corrections were made and suggestions of better alternatives were given. To ensure reliability of the instrument, a test and retest method was adopted. The instrument was administered a second time on a sampling group of 20 students within an interval of two weeks. The set of two scores were correlated using Pearson's Product Moment Correlation Coefficient of which 0.75 Statistics were obtained. The researcher personally administered the instrument to the respondents in the halls of residence. The responses to the questions in the questionnaire were the basis for scoring. Having collected the questionnaire, the researcher examined copies of the completed questionnaire to ensure that they were adequately filled. The responses were analyzed using frequency counts percentage.

3. Result

Research Question 1: What are the perceived factors affecting students' improvement of the sanitary condition of their halls of residence in University of Benin, Ugbowo campus?

Table 1. Perceived factors affecting students' improvement on their Hostel sanitary condition.

Items	Agreed (%)	Disagreed (%)
Non-chalant attitude	202 (92%)	18 (8%)
Laziness and ego	90 (41%)	130 (59%)
Most of the students feel it is humiliating for them to tidy their surroundings	209 (95%)	11 (5%)
Not having enough time due to academic workload	187 (85%)	33 (15%)
Inadequate water facilities	207 (94%)	13 (6%)
Inadequate refuse disposal facilities	40 (18%)	180 (82%)
Lack of drainage system within the school to transport sewage and other waste water	73 (33%)	147 (67%)
Lack of supervision by hostel porter	141 (64%)	79 (36%)
Bad habit of students	121 (55%)	99 (45%)

The table above shows the result of the analysis of research question one of the study. An analysis of the data in the table shows that one major factor affecting students' improvement of their Hostel environment is the non-chalant attitude of student, this was the assertion of majority of the respondents (92%), however only 8% of the respondents refuted the claim. Majority of the respondents (95%) feel it is humiliating for them to tidy their surroundings, while to 5% it is actually not. Furthermore, majority of the respondents (85% and 94% respectively)

believed that some perceived factors could also be not having enough time due to academic workload coupled with the inadequate water facilities in the hostel. Lastly, to majority of the respondents (64% and 55%) some perceived factors could as well be due to the lack of supervision by the hostel porter in addition to the bad habits of students in the hostel.

Research Question 2: What are the strategies that could be employed to improve sanitation in University of Benin, Ugbowo Campus?

Table 2. Strategies that could be employed to Improve Sanitation.

Items	Agreed (%)	Disagreed (%)
Creating the need for research in environmental sanitation	165 (75%)	55 (25%)
The need for students to undertake hygiene education	145 (66%)	75 (34%)
More health workers should be trained to include sanitation practices counseling into their consultations with patients	117 (53%)	103 (47%)
More toilets should be put in place in strategic locations to complement the existing ones to reduce incessant urination and faecal deposit	97 (44%)	123 (56%)
Impromptu inspection around the campus from time to time	86 (39%)	134 (61%)
Management should source for more funds from local and international levels which would be used for providing sanitation facilities	130 (59%)	90 (41%)
Waste disposal vehicles should be procured so that waste can safely be removed.	145 (66%)	75 (34%)
Partnership should be established with private agencies to help convert waste to wealth through waste reduction, reuse and recycling.	198 (90%)	22 (10%)
Regular seminars should be organized on the need for sanitation.	187 (85%)	33 (15%)

The table above shows the result of the analysis of research question one of the study. From the data in the data, several strategies were preferred in combating the menace of environmental pollution. For example, majority of the respondents (75% and 66% respectively) of the respondents were of the opinion that creating the need for research in environmental sanitation and also that transport mechanisms used for waste collection should be purchased to enable safe removal of waste. Meanwhile, to 53% of the respondents indicated that there is need to train workers in health sector in sanitation practices counseling while 59% of the respondents submitted that school administrators should provide adequate funds that should be utilized in installing adequate sanitation materials in the school hostels. 66% of the respondents were also on the same page with this strategy by echoing that waste disposal vehicles need to be provided to ensure safe disposal of waste. Lastly, 90% and 85% respectively were of the opinion that cooperation should be done with individual companies to help convert waste to wealth through waste reduction, reuse and recycling.

4. Discussion of Findings

Findings from this study have been quite revealing. Firstly, the study found that some perceived factors affecting students' improvement of their Hostel environment include: non-challant attitude of student, also that most students feel it is humiliating for them to tidy their surroundings, most students usually don't have enough time due to academic workload coupled with the inadequate water facilities in the hostel, and further added that the lack of supervision by the hostel porter coupled with the bad habits of students in the hostel. This affirms the findings of Sanni (2015) who asserted that most people have nonchalant attitude towards waste disposal and this kind of person could be perceived as one who litters the environment like no man's business with no regards or respect to the environment.

It was also unraveled in the course of the study that several strategies can be preferred in combating the menace of environmental pollution. These strategies include creating the need for research in environmental sanitation and also that safe and effective transport should be purchased for effective collection of waste. Furthermore, there should be training of health workers on sanitation issues while at the same time local, national and international funds should be procured by school management in establishing sanitation facilities in the hostels.

5. Conclusion

From the findings of the study, it can be concluded or inferred that some perceived factors affecting students' improvement of the sanitary condition of their halls of residence include: non-chalant attitudes of student, also that most students feel it is humiliating for them to tidy their surroundings, most students usually do not have enough time

due to academic workload coupled with the inadequate water facilities in the hostel, and further added that the lack of supervision by the hostel porter coupled with the bad habits of students in the hostel.

To close, it can be concluded, it was gathered that the location of refuse receptacles are sometimes too far to the students for easy dumping of waste, as most students considered dumping their refuse indiscriminately. However, from investigation and based on situational factors some students are sometimes forced to do what they knew to be wrong. Refuse receptacles are not enough to serve the people; hence the few available ones are widely spaced, sometimes up to 3 or more kilometers apart. When the students cannot walk such distance to dispose of the refuse, they result to indiscriminate dumping.

6. Recommendations

Based on the findings of the study, the following recommendations can be proffered:

- 1) The school management should provide refuse receptacles in large quantity and place them at intervals but very close within the hostels.
- 2) Management should ensure prompt clearance of solid wastes from the refuse receptacles in the hostels.
- 3) Management can institute monthly awards for the neatest hostel on campus to encourage the students.
- 4) Bill boards that enlighten people on the need to keep the environment clean, and the implications of indiscriminate refuse dump should be mounted in strategic places on campus.
- 5) Sanitary/dumping sites should be properly selected and managed by the school management which should be far away from sources of water.
- 6) School management should encourage better sanitation practices by formulating laws that prohibits indiscriminate waste dumping.

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