

ENVIRONMENTAL HEALTH EDUCATION AND THE MANAGEMENT OF SECONDARY SCHOOLS IN MAKURDI EDUCATION ZONE OF BENUE STATE, NIGERIA

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Abstract

This study investigated the influence of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria. Two research questions and two hypotheses guided the study. Descriptive survey research design was adopted for the study. The population of the study comprised 2,178 teachers from 89 grant-aided secondary schools in Makurdi Education Zone of Benue State, Nigeria. A sample of 320 teachers was used for the study. A 10-item structured questionnaire constructed by the researcher titled “Environmental Health Education Questionnaire (EHEQ)” was used for data collection. A pilot study was conducted to establish the reliability of the instrument which yielded a positive result. Data collected were analyzed using descriptive statistics of mean and standard deviation to answer research questions while the inferential statistics of chi-square χ^2 test of goodness of fit was used to test the hypotheses at 0.05 level of significance. The findings revealed that drug abuse and school convenience have significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria. Based on the findings of the study, the researcher

recommended among other things that school administrators should regularly monitor their students to fish out those students who engage in taking illegal drugs and punish them or hand them over to NDLEA for prosecution so as to serve as deterrent to other students.

Keywords: Environmental Health Education, Management of Secondary Schools, Drug Abuse and School Convenience.

Environmental challenges and opportunities seem to vary considerably among secondary schools around Nigeria and Makurdi Education Zone, Benue State in particular. Similarly, the resources available to these schools to manage health hazards vary as widely as the threat themselves, often creating formidable school management challenges in the study area. This has made the issue of imparting in students environmental health education practices in all pyramids of education in Nigeria a thing of concern to all educational stakeholders. This is owing to the fact that school physical environment needs to be kept neat and clean so as to make teaching and learning conducive and effective. This is to say that school physical healthy environment may determine effective and efficient management of schools. There is a need for a healthy school environment as World Health Organization (2004) defines a health-promoting school as “one that constantly strengthens its capacity as a healthy setting for living, learning and working.” The American Academy of Pediatrics (2003) defines a “healthful school environment” as “one that protects students and staff against immediate injury or disease and promotes prevention activities and attitudes against known risk factors that might lead to future disease or disability.”

World Health Organization (1997) states that the physical school environment has a strong influence on children’s health for several reasons. First, the environment is one of the primary determinants of children’s health: contaminated water supplies can result in diarrheal disease; air pollution can worsen acute respiratory infections and trigger asthma attacks; and exposure to lead, arsenic, solvents, and pesticides can cause a variety of health effects and even death. Second, children may be more susceptible to the adverse health effects of chemical, physical, and biological hazards than adults. Reduced immunity, immaturity of organs and functions, and rapid growth and development can make children more vulnerable to the toxic effects of environmental hazards than adults. Relative to their body weight, they breathe more air, consume more food and drink more water than adults. Their exposure to any contaminant in air, water, or food will therefore be higher than experienced by adults. Children spend much of their day within school environments during critical developmental stages. Third, children’s behavioural patterns are distinctively different from adults and place them at risk from exposure to environmental threats that adults may not face. These behaviours include placing fingers and other objects in the mouth

and not washing hands before eating. Children lack the experience to judge risks associated with their behaviours. Adolescents, in particular, are more likely to take risks, such as climbing and jumping from unstable structures.

Provision of safe and sufficient water, sanitation, and shelter from the elements are basic necessities for a healthy physical learning environment. Equally important is the protection from biological, physical, and chemical risks that can threaten children's health. Infectious diseases carried by water, and physical hazards associated with poor construction and maintenance practices are examples of risks children and school personnel face at schools throughout the world. The quality of school environment is crucial in creating a congenial and healthy environment for teachers and students welfare and productivity in institutions of learning today. School heads manage their environment by getting rid of all wastes and byproducts of different natural and anthropogenic processes introduced into the immediate school environment. Environmental health education has become one of the greatest challenges facing institutions of learning in the whole world today.

The provision of health education for fruitful, healthy and productive living and effective management of all school programmes is very crucial. People all over the world today, irrespective of their level of education and sophistication, have a common instinct for self preservation which provides a strong motive to pursue health. In the past, it used to involve a long-drawn out process of trial and error, of fear and hope, of reasoning and following example. Today, with the enormous opportunity implicit in the widespread availability and use of scientific knowledge, the attainment of a state of well being rests upon personal resolve. Resolve here depends on attitude upon insight and insight upon knowledge, experience and feeling.

The provision of health education have been developed with the specific aim of helping students to make choices about health more wisely and live a healthy life capable of making them achieve their education goal pursuit. The health situation of all students in secondary schools in particular is very important and should never be taken for granted at any time. This brings us to the popular saying that "Health is wealth". This is because a man's state of health determines his ability and strength to engage in every of his activities which provides wealth for him to achieve his targeted goal in life.

In most secondary schools today all over the world, both the teachers and students suffer greatly on problems of environmental health. According to Federal Ministry of Education (2006), environmental health problem in schools includes; mosquito bite, attack of water born disease, spread of infectious disease like Hiv/Aids, asthma, chicken-pox, flood, landslide, erosion, storms, tsunamis, earthquake, poor school convenience, and students engaging in drug abuse.

Furthermore, Droppings or body parts from cockroaches, rodents, and other pests can trigger asthma attacks and can cause allergic reactions to students and staff of secondary schools especially when school conveniences such as toilet, washroom and bathrooms are not kept neat and clean. Due to such situations, some pests also can transmit disease the school occupants. The negative influence of this on the students and school management is causing of malaria, injuries, malnutrition, disabilities and death among students and teachers. Other effects could be destruction of school physical building and properties, disruption of school academic programmes, making the school environment dirty and unconducive for learning, and increase in school dropout and absenteeism among students.

According to Ghose (2006) environmental health problems affecting school children today are; unsafe water, sanitation and hygiene, urban air pollution, indoor smoke from solid fuels, lead exposure and climate change. This has tends to have effects on the students and teachers in the areas of diarrhea diseases, respiratory infections, lower respiratory infections, lung cancers, cerebrovascular disease, hypertensive disease, , malaria, unintentional injuries. This may result to causing unsafe environment for teaching and learning.

Health is defined as “a state of complete physical, mental and social well-being of an individual, but not merely the absence of or infinity” (WHO, 1991:67). Health education according to Kolybine (1999) is education that provides people with the skills, knowledge and attitudes conducive to health and well being. Environmental health education on the other hand is the control of those factors in man’s psychological environment which may exercise serious harmful effects on his physical development, health and survival. It is concerned with both quality of human life and quality of environment (Iorvaa, 1998).

Environmental health education is initiated to acquaint all members of the society especially students on the general principles that promotes health like keeping their school conveniences such as toilet and bathrooms clean, avoid cases of environmental hazards, erosion and flood, prevent disease infection by keeping the school environment clean and stop students’ abuse of drugs. Lack of environmental health education in institutions of learning may negatively influence school management in terms of creating poor school environment, and increased indiscipline among students (Offiong, 2003). Commenting on the need for environmental health education in the management of secondary schools, Obong (2006) states that the knowledge of health education helps to manage school environment in an aesthetics way such as regular painting and maintenance of the quality of buildings, channeling of sewage, well planned landscape and trimming of flowers, clearing of grasses, proper disposal of refuse, sweeping and removing cobwebs among others and the provision of a relaxed atmosphere for the molding of minds.

Management of secondary school according to Idoko (2005) is the coordination of the efforts of the people through human (teaching and non-teaching staff, students) and material resources to accomplish the objectives of secondary education. In the opinions of Cotton, (2003), management of secondary schools is the process of deciding what to do in school and getting it done through effective use of available resources. How school environment is managed in aesthetics, recreation, waste, drainage pattern and other physical outlook of the environment has telling influence on the quality of learning environment of students. In most schools today in Nigeria, a lot of students seem to engage in illegal drug taking called drug abuse. According to NDLEA (1998), drug abuse is any drug taken without medically recommended or if its use causes physical, psychological, legal or social harm to the individual user or other affected by the drug users behaviour. Ghose (2006) states that the act of students indulging in drugs is capable of making them misbehave in class during lessons.

Borodo (2005) observes that the consequences of drug abuse in our schools today is increasing burden on the management of schools as well as increased cases of crimes and other societal ills in the school. Borodo further states that most students who frequently engage in fighting and bullying of other fellow students are those who indulge in taking illicit drugs alcohol, cigarettes and marijuana, cocaine, Indian hemp, codeine among others. This seems to have negative influence on their academic activities as well as constitute a problem to the management. Students who receive quality environmental health education will learn to stay away from abusing drugs and keep their school convenience clean to avoid being infected with disease. Kyalo and Mbugua (2011) posit that students who use drugs and/or alcohol are more likely to have several partners and therefore risking sexually transmitted diseases including HIV/AIDS. All these pose a serious challenge to the principals such that he or she spends more times on the school security management instead of the actual teaching and learning.

Also, orienting students on health issues may go a long way in positively influencing their school conveniences. This is because, students who are not enlightened about health practices and the implication of neglect may imbibe the culture of routinely taking care of their school convenience. School conveniences are referred to as toilets, latrine, washroom and bathrooms. According to Banuri (2004) if toilets and urinary places are not given adequate attention in keeping with the health of students it will affect their learning abilities. Egim (2003) states that school administrators have the responsibility to make school toilets accessible, clean and safe by encouraging students to keep the regularly clean.

Verla (2003) opines that cleaning and maintenance of school conveniences such as toilet, washroom and bath rooms helps to avoid health problems. Verla further

opines that there is every need for provision of toilet paper, warm water for washing of hands, soap for washing of hands and hand towels/dryers in school toilets and latrine. Similarly, Okaba and Obong (2006) state that schools should have an effective toilet cleaning and inspection regime to ensure adequate standards of hygiene, behaviours and cleanliness, throughout normal hours of usage. This will help to prevent a lot of health problems that could be encountered by the students in schools. This situation is applicable to secondary schools in Makurdi Education Zone of Benue State where school heads are most head responsible for poor health practices among students in their schools. It is against this background that the researcher has deemed it necessary to investigate the influence of environmental health education on the management of secondary schools with particular focus on drug abuse and school conveniences.

Statement of the Problem

Concern has been expressed by stakeholders in the study area over the poor condition of secondary school environment especially in the study area that seem to have negative or positive influence on the management of secondary schools. Public observation by concerned individuals in the study area reveals that students in most secondary schools in the study area engage in drug abuse such as smoking of cigarette, marijuana, Indian hemp among others and do not take proper care of their school convenience such as toilet, bathroom washroom among others. According to public observation, such students' who abuse drugs seems to misbehave as well as go contrary to the school rules and regulations as well as participate in other forms of criminal activities in the school there by causing distraction to school academic activities.

In the same vein, personal observation by the researcher also revealed that students in secondary school in the study area seem to have poor attitude towards their school convenience such as the regular cleaning of school toilet, bathroom and washroom. This poor attitude and negligence seem to attract disease and pest attack on the students and teachers which seems to negatively influence effective and efficient management of secondary schools in the study area. In respect to the above, one may ask, what could be the reason behind students frequent abuse of drugs and poor attitude towards proper taking care of their school convenience?, is it that the school authorities allow such behaviour among students in the school? Or could it be solely attributed lack of environmental health education for students in the school?

This study sets out to critically investigate the status-quo in Makurdi Education Zone of Benue State, Nigeria where school administrators seem to be largely held accountable for t students' indulgence in drug abuse and poor condition of their school conviniences. Thus, the problem of this study stated in question form

is therefore: how does environmental health education influence the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria?

Purpose of the Study

The main purpose of this study is to investigate the influence of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State. Specifically, the study sought to;

1. ascertain the influence of drug abuse due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.
2. determine the influence of school conveniences due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State.

Research Questions

The study was guided by the following research questions;

1. What is the influence of drug abuse due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria?
2. What is the influence of school conveniences due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- H₀₁.** Drug abuse due to lack of environmental health education has no significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.
- H₀₂.** School conveniences due to lack of environmental health education has no significant influence on the management of secondary schools in Makurdi Education Zone of Benue State.

Methodology

The descriptive survey design was adopted for the study to enhance generalization of findings. The survey research design according to Olayiwola (2007) is a research method that describes a given state of affairs at a particular time. The study is confined to Makurdi Education Zone of Benue State which comprise of four local government areas namely; Guma, Gwer-East, Gwer-West and Makurdi., Nigeria. The population of the study comprised 2,178 teachers from 89 grant-aided secondary schools in Makurdi Education Zone of Benue State, Nigeria. A sample of

320 teachers was used for the study. A 10-item structured questionnaire developed by the researcher titled “Environmental Health Education Questionnaire (IEHEQ)” was used for data collection for the study. The questionnaire was validated by experts in Educational Management and Tests and Measurement from the Faculty of Education, Benue State University, Makurdi. A trial-test (pilot study) was conducted on 20 teachers in two secondary schools that were not part of the sample for the main study but were part of the entire population. The result of the pilot study was analyzed using Cronbach Alpha Correlation Coefficient and a reliability coefficient of 0.79 was obtained which proved that the instrument is reliable for usage. The data collected was analyzed using simple descriptive statistics of mean and standard deviation to answer research questions. A mean cut-off point of 2.50 was used for decision making. Any mean score of 2.50 and above was accepted as having the desired influence while any mean score below 2.50 was rejected as not having influence. The hypotheses were tested using chi-square test of goodness of fit at 0.05 level of significance.

Results and Findings

This section presents and discussed the results of the study.

Research Question One

What is the influence of drug abuse due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria?

Table 1: Mean Ratings and Standard Deviations of the influence of drug abuse due to lack of environmental health education on the management of secondary schools

Item No	Item Description	SA	A	D	SD	\bar{X}	STD	Decision
1	Drug abuse among students due to lack of environmental health education makes them go into illicit drug taking which result to stealing in school.	143	142	15	20	3.09	0.91	Accepted
2	Students who are not oriented on the dangers of illicit drug taking like cigarette take excessive of it which makes them drowsy and vomit in class hence cause disruption to teaching and learning.	165	120	18	17	3.11	0.78	Accepted

3	Unawareness of health implications of illicit drug taking like Indian hemp among students makes them indulge in it which result to fighting unnecessary in school.	212	101	5	2	3.21	0.88	Accepted
4	Students who are enlightened on health issues concerning illicit drugs taking like cocaine avoid taking it thereby not causing problem to the management.	128	170	13	9	3.18	0.75	Accepted
5	Drug abuse among students due to lack of orientation about the dangers of it makes them develop bad temper which result to undue interference with the day to day running of the school.	113	172	14	21	2.99	0.92	Accepted
Cluster Mean/Standard Deviation						3.12	0.85	Accepted

Data on Table 1 showed that the mean rating for items 1-5 were 3.09, 3.11, 3.21, 3.18 and 2.99 respectively with their corresponding standard deviations of 0.91, 0.78, 0.88, 0.75 and 0.92. All the mean ratings are above the cut-off point of 2.50. This means that the respondents had agreed that drug abuse among students due to lack of environmental health education makes them go into illicit drug taking which result to stealing in school. Students who are not oriented on the dangers of illicit drug taking like cigarette take excessive of it which makes them drowsy and vomit in class hence cause disruption to teaching and learning. Unawareness of health implications of illicit drug taking like Indian hemp among students makes them indulge in it which result to fighting unnecessary in school. They also agreed that students who are enlightened on health issues concerning illicit drugs taking like cocaine avoid taking it thereby not causing problem to the management. More so, drug abuse among students due to lack of orientation about the dangers of it makes them develop bad temper which result to undue interference with the day to day running of the school. The cluster mean of 3.12 with the standard deviation of 0.85 were also found to be above the cut-off point of 2.50. This implies that drug abuse due to lack of environmental health education influence the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Research Question Two:

What is the influence of school conveniences due to lack of environmental health education on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria?

Table 2: Mean Ratings and Standard Deviation of the influence of school conveniences due to lack of environmental health education on the management of secondary schools.

Item No	Item Description	SA	A	D	SD	\bar{X}	STD	Decision
6	Students go to toilet without flushing due to lack of proper health orientation which results to increase of infectious diseases in the school environment.	221	81	16	2	3.14	0.89	Accepted
7	Students hardly sweep the bathroom due to poor health orientation which tends to create bad odour, hence causing sickness among students and teachers.	166	112	21	21	3.01	0.82	Accepted
8	Students regularly clean the school washroom because of health orientation received in school which tends to make the school conducive for teaching and learning.	139	119	19	43	3.11	0.79	Accepted
9	School toilet is littered with urine because of poor cleaning attitude of students as a result of lack of environmental health education hence it result to spread of pest and rodents attack on the students and teachers.	151	108	14	47	3.21	0.94	Accepted
10	Environmental health education imbibes in students the culture of proper flushing of school toilet to avoid contact and spread of disease and infection among students and teachers.	171	122	18	9	3.30	0.77	Accepted
Cluster Mean/Standard Deviation						3.15	0.84	Accepted

Table 2 indicates that the mean ratings for items 6–10 were 3.14, 3.01, 3.11, 3.21 and 3.30 with their corresponding standard deviations of 0.89, 0.82, 0.79, 0.94 and 0.77. All the mean ratings were above the cut-off point of 2.50. This means that the respondents had agreed that students go to toilet without flushing due to lack of proper health orientation which results to increase of infectious diseases in the school environment. Students hardly sweep the bathroom due to poor health orientation which tends to create bad odour, hence causing sickness among students and teachers. Also students regularly clean the school washroom because of health orientation received in school which tends to make the school conducive for teaching and learning. Moreso, school toilet is littered with urine because of poor cleaning attitude of students as a result of lack of environmental health education hence it result to spread of pest and rodents attack on the students and teachers and that environmental health education imbibes in students the culture of proper flushing of school toilet to avoid contact and spread of disease and infection among students and teachers. The cluster mean of 3.15 with the standard deviations of 0.84 were also found to be above the cut-off point of 2.50. This implies that school conveniences due to lack of environmental health education influence the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Hypotheses Testing

Hypotheses One:

Drug abuse due to lack of environmental health education has no significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Table 3: Chi-Square test of the influence of drug abuse due to lack of environmental health education on the management of secondary schools

Opinions	Observed Frequency	Expected Frequency	Df	χ^2 -cal	χ^2 -tab	Level of Sig.	Decision
No Influence	42	160	1	89.20	3.84	0.05	H ₀ Rejected
Influence	278	160					

Values in parentheses are percentages. $\chi^2 = 89.20$, $df = 1$, $p = 0.05 > 0.00$.

The result on Table 3 indicates that the calculated chi-square value is 89.20 while the critical or table value is 3.84 checked at 0.05 level of significance and at 1 degree of freedom. Since the chi-square calculated value was greater than the critical value (89.20 > 3.84), the null hypothesis which states that drug abuse due to lack of environmental health education has no significant influence on the management of secondary schools in Makurdi Education Zone of Benue State was rejected. The implication of the result is that drug abuse due to lack of environmental health education has significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Hypotheses 4:

School conveniences due to lack of environmental health education has no significant influence on the management of secondary schools in Makurdi Education Zone of Benue State.

Table 4: Chi-Square test of the influence of school conveniences due to lack of environmental health education on the management of secondary schools

Opinions	Observed Frequency	Expected Frequency	Df	χ^{2-cal}	χ^{2-tab}	Level of Sig.	Decision
No Influence	37	160	1	103.22	3.84	0.05	H ₀ Rejected
Influence	283	160					

Values in parentheses are percentages. $\chi^2 = 103.22$, $df = 1$, $p = 0.05 > 0.00$.

Table 4 indicates that the calculated chi-square value is 103.22 while the critical or table value is 3.84 checked at 0.05 level of significance and at 1 degree of freedom. Since the chi-square calculated value was greater than the critical value ($103.22 > 3.84$), the null hypothesis which states that school conveniences due to lack of environmental health education has no significant influence on the management of secondary schools was rejected. This implies that school conveniences due to lack of environmental health education has significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Discussion of Findings

The first finding of the study as presented on Table 3 indicates that drug abuse due to lack of environmental health education has significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria. The result agrees with the opinion of Borodo (2005) who observes that the consequences of drug abuse in our schools today is increasing burden on the management of schools as well as increased cases of crimes and other societal ills in the school. Borodo further states that most students who frequently engage in fighting and bullying of other fellow students are those who indulge in taking illicit drugs alcohol, cigarettes and marijuana, cocaine, Indian hemp, codeine among others. This seems to have negative influence on their academic activities as well as constitute a problem to the management. Students who receive quality environmental health education will learn to stay away from abusing drugs and keep their school convenience clean to avoid being infected with disease. Also in corroboration with the finding, Kyalo and Mbugua (2011) posit that students who use drugs and/or alcohol are more likely to have several partners and therefore risking sexually transmitted diseases including HIV/AIDS. All these pose a serious challenge to the principals such that he or she spends more times on the school security management instead of the actual teaching and learning.

The second finding of this study revealed that school conveniences due to lack of environmental health education has significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria. This finding corroborate with the views of Verla (2003) who opines that cleaning and maintenance of school conveniences such as toilet, washroom and bath rooms helps to avoid health problems. Verla further opines that there is every need for provision of toilet paper, warm water for washing of hands, soap for washing of hands and hand towels/dryers in school toilets and latrine. Similarly in line with the finding, Okaba and Obong (2006) maintain that schools should have an effective toilet cleaning and inspection regime to ensure adequate standards of hygiene, behaviours and cleanliness, throughout normal hours of usage. This will help to prevent a lot of health problems that could be encountered by the students in schools.

Conclusion

Based on the results of the study, it was concluded that drug abuse and school conveniences due to lack of environmental health education has significant influence on the management of secondary schools in Makurdi Education Zone of Benue State, Nigeria.

Recommendations

Based on the findings of this study, it was recommended as follows;

1. School administrators should regularly monitor their students to fish out those students who engage in taking illegal drugs and punish them or hand them over to NDLEA for prosecution so as to serve as deterrent to other students.
2. There should be employment and training of more health education teachers that will be able to guide students on hygiene issues so that they can have positive attitude towards regular keeping of their school clean.

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Environmental Health Education and the Management of Secondary Schools in Makurdi Education Zone of Benue State, Nigeria – M.U. Oluwole, Ph.D and Ezekiel Dondo Ivagher

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