

COGNITIVE ENVIRONMENTAL SANITATION ON HEALTH PRACTICES OF SECONDARY SCHOOL ADOLESCENTS

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ABSTRACT

Literature has shown that knowledge of environmental sanitation helps in the promotion of individual and community health practices. Health education modifies peoples' behaviours such that it can have a great impact on national development. This study investigated the influence of the knowledge of environmental sanitation as it relates to health behaviours of school adolescents in Lagos State.

Study adopted descriptive survey research design. Two hundred secondary school adolescents were sampled, using stratified and systematic sampling procedures. Three research hypotheses were tested at 0.05 alpha level. Questionnaire was validated and subjected to the reliability coefficient of 0.77. Data were analysed using Chi-Square statistics. There were significant impacts on personal hygiene practices ($X^2 = 183.21$, $p < 0.05$), classroom cleanliness ($X^2 = 191.12$, $p < 0.05$) and food hygiene practices ($X^2 = 107.21$, $p < 0.05$). There is need for health officials to be visiting secondary schools in order to promote enlightenment on environmental sanitation among secondary school students in Lagos metropolis.

KEYWORDS: Environmental sanitation, Health practices, Adolescents.

INTRODUCTION

Health appreciates every day and depreciates every day, which leads to its variation from time to time, but a balance of it makes individuals to assume being healthy. Turner reported that, those with least state of health, value health the most, and that children at the age of ten to eleven, tend to ignore personal hygiene (1). This is to say that, without the adequate provision of health knowledge, these children would relatively be dirty, and giving room for communicable diseases to spread. Dare said "our school surroundings are weedy, littered, inadequate sanitary facilities, and ill ventilated, resulting to the outbreak of communicable disease among children who are the future leaders of the country" (2). He added that the inspection of students' finger nails, hairs, and school uniforms on the assembly lines every morning no longer happens. The teaching of personal hygiene has been eliminated from time table in most schools and that students have developed unhygienic health habits inimical to good health practices

Infectious and parasitic diseases associated with low standards of sanitation remain the leading cause of morbidity and mortality in many developing countries (3). Human environmentally related diseases such as malaria, typhoid, diarrhea and dysentery are a constant threat to life (4). Lack of potable water supply and poor environmental sanitation are the reasons diseases

associated with unhygienic disposal of human faeces and refuse are so common in developing countries. The most important of such diseases are diarrhea and intestinal worm infections which account for over 10% of the total disease burden in developing countries. Inadequate supply of potable water increases the risk of schistosomiasis, guinea worm and skin infections (5).

These environmentally related diseases can be controlled and prevented through health promotion and improvement in environmental sanitation (6). Health promotion aims at increasing the host's ability to withstand stress in the environment such as through good nutrition and health education. The objective of environmental sanitation is to create and maintain conditions in the environment that will promote health and prevent diseases. This can be achieved through minimizing pollution of water, air, and soil; and by having a good focus on other measures of environmental sanitation that will reduce the transmission of communicable diseases to children and adults.

Stubbs, explains that health is being threatened by air, water, and food pollution, and are in danger of being engulfed in trash (7). Unless children have adequate health knowledge of how one's carelessness could endanger self and others, the above problem as it is manifested now in our unhygienic environment, will increase our being engulfed in the trash. Therefore, the

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acquisition of health knowledge by our children being the leaders of tomorrow should not be toyed with.

Many authors have shown that improvement should not only be based entirely on curative services, but also on the acquisition of scientific health facts. Harold, stated that in any good health scheme, there should be provision for social and basic knowledge of science of hygiene, which would enable people to live in harmony with their environments, which is accomplished through health education (8). People would continue to keep their environments clean and tidy, and observe some basic health rules in terms of preventive medicine, which could be helpful in directing individuals in making wise decisions as they are confronted with decision making in terms of factors affecting their health. In a nutshell, a large number of health problems pervading this community are self-inflicted, manifested through community members drinking water from impure sources such as shallow wells, deep wells without adequate cover, streams and ponds. Eating in and from unhygienic and dangerous sources like uncovered food items sold by gutter sides, dumping sites, and eating unhygienic vegetables are among other practices. The amount spend annually by government at all levels, as well as individuals on drugs, the environmental hazards to which we are exposed because of lack of proper health education and the unwillingness to change can not be overemphasized. In most of the secondary schools in Lagos State, paper, plastics, food peels, broken bottles, suya sticks, leather for wrapping moi-moi, bread, groundnut, maize, corns, food and its remnants among others litter all over the school compounds or premises. Sometimes, students defecate behind their classrooms, hostels, dining halls, they even urinate behind their classrooms probably there is no specific place to urinate. The uncompleted buildings become their toilets, and one begins to wonder if these students have knowledge of environmental sanitation practices, hence there is need to conduct an investigation in this particular area of health problem.

Research Hypotheses

The following hypotheses were tested in the study

- There is no significant knowledge of environmental sanitation on personal hygiene practices among secondary school adolescents
- There is no significant knowledge of environmental sanitation on classroom cleanliness among secondary school adolescents
- There is no significant knowledge of environmental sanitation on food hygiene practices among secondary school adolescents

METHODOLOGY

Research Design

The study adopted a descriptive survey research design. The study was conducted in Mainland Local Government area of Lagos State using stratified sampling technique to divide the study location into strata while systematic sampling method was adopted to pick forty students in each of the five schools totaling two hundred (200) respondents.

Procedure

The instrument used for data collection was a validated questionnaire which yielded 0.77 alpha. Twenty eight question items were generated on a 4 point likert scale. After field testing of the instrument on respondents, ambiguous and redundant variables were deleted. In order to reduce the items to a meaningful and manageable structure, a principal component factor analysis with varimax correlation, extraction and rotation were conducted for predictive and convergent validation of the instrument. The items were further subjected to exploratory factor analysis setting the retention criterion at 0.70. At the second stage of validation of the instrument, the final version of the research instrument comprised 15 question items representing knowledge of environmental sanitation and health practices. Data were analyzed using Descriptive statistics of frequency counts and percentages for demographic attributes of the respondents while Chi-Square (X^2) statistics was used to test the hypotheses at 0.05 level of significance.

RESULTS

From figure 1, Age attributes of the respondents shows that 57 (28.5%) of the total respondents were 10years, 67 (33.5%) were between 11-12years, 46 (23.0%) were 13-15year-old, while those within 16 year-old and above constitute the least respondents 30 (15.0%). The implication of this is that, most of the student adolescents were relatively young adults and that they are expected to have learnt some health behaviours. In terms of sex of the respondents, 164 (82.0%) were male students while 36 (18.0%) were female students (Figure 2).

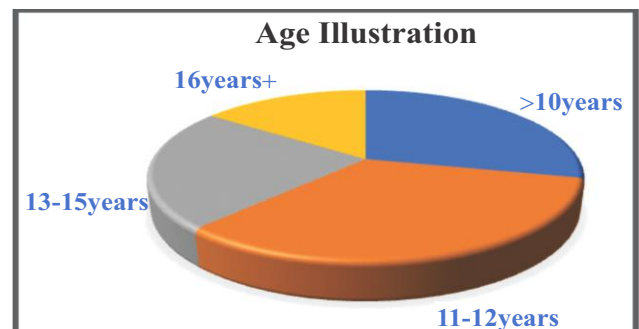


Fig 1: Pie-chart Presentation of Respondents by Age

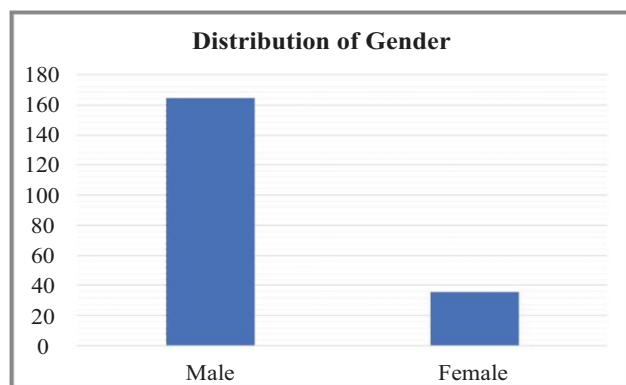


Fig 2: Bar-chart Presentation of Respondents by Gender

Hypotheses Testing

Table 1 shows that the X^2 value of 183.21 is significant at 5% ($P < 0.05$). The hypothesis which stated that knowledge of environmental sanitation would not have significant influence on personal hygiene practices among secondary school adolescents is hereby jettisoned. This implies that knowledge is one of the key factors of practicing good health habits.

Variable	df	X^2 Calc.	X^2 Crit	Remarks
Personal Hygiene	22	183.21	71.34	Sig.

Table 1: Knowledge of Environmental Sanitation and Personal Hygiene Practices

X^2 value = 183.21 > Crit X^2 value = 71.34, df 22, $p < 0.05$.

Table 2 connotes that the X^2 value of 191.12 is significant at 5% ($P < 0.05$). The hypothesis which stated that knowledge of environmental sanitation would not have significant influence on classroom cleanliness practices among secondary school adolescents is hereby rejected. X^2 Calc value = 191.12 > Crit X^2 value = 7.19, df 22, $p < 0.05$

Variable	Df	X^2 Calc.	X^2 Crit.	Remarks
Classroom Cleanliness	22	191.12	7.19	Sig.

Table 2: Knowledge of Environmental Sanitation and Classroom Cleanliness Practices

Table 3 revealed that the X^2 value of 107.21 is significant at 5% ($P < 0.05$). This implies that the hypothesis which stated that knowledge of environmental sanitation would not have significant influence on food hygiene practices among secondary school adolescents is hereby rejected. cents is hereby rejected.

Variable	Df	X^2 Calc.	X^2 Crit.	Remarks
Food Hygiene	22	107.21	33.76	Sig.

Table 3: Knowledge Of Environmental Sanitation And Food Hygiene Practices

X^2 Calc value = 107.21 > Crit X^2 value = 33.76, df 22, $p < 0.05$

DISCUSSION

Hypothesis one stated that knowledge of environmental sanitation would not have significant influence on personal hygiene practices among secondary school adolescents. The finding of this study after analysis showed that knowledge of environmental sanitation has significant influence on personal hygiene practices among the participants. The finding corroborates the assertion of Nkom and Essien reported that the dimension of knowledge deals with peoples' basic understanding of what constitutes hygiene or unhygienic behaviour, environmental cleanliness, wholesome or good quality water/food, as well as the relationship between health and sanitation, hygiene or clean water (9). Aina also supported the finding students in Oyo state acquired knowledge on environmental sanitation tends to have improved personal hygiene and skills needed to control communicable diseases (10). He further stated that personal hygiene, such as brushing of teeth regularly, combing the hair, bathing and cutting of nails can all be acquired via environmental sanitation education.

Hypothesis two stated that knowledge of environmental sanitation would not have significant influence on cleanliness among secondary school adolescents in Lagos state. The finding agreed with the submissions of Mabogunje, that knowledge of environmental sanitations is an important health education strategy that can be deployed to ensure classroom cleanliness and school cleanliness among students (11). Akinjide submitted that environmental health education creates awareness on the impending dangers of untidy school environments ranging from easy transmissible of communicable diseases, injuries from damage materials and poor hygiene (12). Therefore, knowledge of environmental sanitation among the students can help improve classroom cleanliness, dormitory cleanliness and toilets' cleanliness.

Hypothesis three stated that knowledge of environmental sanitation would not have significant influence on food hygiene practices among secondary school students in Lagos state. The inferential statistics of Chi-square (X^2) was used to test this hypothesis which was rejected at 0.05 level of significance. The finding agreed with the study of Achi, that food hygiene deals with the prevention of contamination of food stuffs at all stages of production, collection, transportation, storage, preparation, sale and consumption (13). World Health Organization in the year 2001 stated that knowledge of environmental health helps individuals in the

following ways: prevent contaminating food with pathogens spreading from people, pets and pests, Separate raw from cooked foods to prevent contaminating the cooked food, cook food for the appropriate length of time and at the appropriate temperature to kill pathogens and to store food at the proper temperature (14).

CONCLUSION

The findings from this study revealed, among others, that there is need for health officials to be visiting secondary schools in order to promote enlightenment on environmental sanitation among secondary school students in Lagos metropolis. Also, the study showed that students who are directly controlled and enlightened have better disposition in their environmental sanitation and practices. The following are therefore recommended; students should be encouraged to put their knowledge of environmental sanitation into action or practice, schools should invite experts and specialists to give talks to students on environmental sanitation education, governments should assist in providing health promoting facilities such as toilets, water supply, refuse bins, hand washing facilities, shovel among others in Secondary Schools in Lagos State for proper execution of health practices.

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