

WASTE DISPOSAL PRACTICES AMONG STUDENTS IN TERTIARY INSTITUTIONS AND POST COVID-19 PREVENTIVE MEASURES: MEDICAL LIBRARIAN'S ADVOCACY FOR A SUCCOR

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Abstract

Purpose: The purpose of this paper is to discuss the need to enlighten students on healthy waste disposal habits on campuses in Nigeria tertiary institutions by medical librarians at the wake of COVID-19.

Design/Methodology/Approach: This is a conceptual study approach through an extensive review of literature. The adverse effect of students' population is occasioned by the increasing volume of solid waste generated from both male and female students' activities. The COVID -19 emergence raises concerns about the effectiveness of waste management strategies to ensure appropriate disposal of wastes to avert a community infection implication on students' health and wellness. The framework was adopted from the vision 2030 United Nations sustainable development goals concept.

Findings: The paper found out ways to promote healthy disposal environment for students welfare in tertiary institutions such as collection of solid wastes and onward transportation, provision of landfill sites for the campus refuse pits and more importantly, carrying out sensitization programmes on waste disposal by medical librarians.

Practical Implications: Medical Librarians need to collaborate with the government on appropriate waste disposal on campuses to ensure safety environments for students in post Covid-19 period. This can be achieved through advocacy and sensitization programmes in addition to acquiring relevant information materials for host institutions.

Value/Originality: The need to enforce enlightenment campaign on healthy waste disposal practices by medical librarians' is recommended among others, towards the prevention of morbidity arising from poor management of wastes disposal in the wake of COVID-19 and avoidance of community pollution on campuses in Nigerian Tertiary Institutions.

Keywords: Medical Librarians, Wastes Disposal Practices, Tertiary Institutions and COVID-19

Paper Type: Conceptual/ exploratory

Introduction

The generation of solid waste, the non-liquid and non-gaseous product of human activities which could take the form of refuse, garbage and sludge is reportedly on the daily increase, most especially on campuses in the universities with specific pull factors of student population yearly. Every student resident generates waste arising from routine activities such as sweeping, remnants of food,

washing and laundry. The common reported type of solid waste found includes paper, grass, nylon (in pure water bags and sachets, ice cream, sweet and candy wrappers) amidst the COVID-19 pandemic, maize or corn cobs and groundnut shells also contribute to some of these waste. The increase in population of an area without any corresponding increase in the available social infrastructures often results in the attendant infection of diseases and the problem of

environmental sanitation. An overcrowded environment breeds and spreads infection of Corona-virus in Africa and its looming threat of infection (Nkengason and Mankoula 2020). The state of the environment is very crucial to the existence of every creature, just as it serves as habitation to any creature contributing to a large extent to the quality of life (Oreyomi, 2005). There are different categories of wastes being generated by students viz a vis, solid wastes poses a hydra-headed problem beyond the scope of various solid waste management systems in Nigeria (Geoffrey, 2005), as wastes from both domestic and commercial activities are found on the campuses.

Waste could be described as an unofficial measure of prosperity, it can also be a major problem on man especially when it is not well managed and disposed of properly. It is obvious that many diseases are likely to be contracted from unsanitary condition which results from improper waste disposal practices, lack of hygiene could also cause infant mortality, though hygiene education and awareness is salient in issues of sanitation as water and sanitation related diseases are very much dependent on behavioural practices in the disposal of available wastes (Ahmed et'al 2005). It is being observed that unregulated growth in the density of students on campus areas and adequate infrastructural facilities for collecting, transporting, treating and disposal of waste have all contributed to increase in pollution. The heterogeneous mixture of plastics, cloths, metals and organic solution which are inevitable products of production increase as a result of over-population which gives room for indiscriminate discharge of solid wastes and sewage thereby causing flooding which is a threat to life in general. Suffice to note in Nigeria is flood events which has a long year of history of devastation of lives and properties

In recent years, the unprecedented rate of flooding implicates increasing rainstorms due to global warming and climate change. Although, flood hazard is natural human influence which can exacerbate the problem (Adedeji et'al, 2012).

Flooding is associated with haphazard waste disposal. Students in hostels are not far from engaging indiscriminate refuse waste disposals at random. There is need to introduce health promotion exercise and advocacy to students on Campus to avoid refuse indiscriminate disposal. Such sensitization can be strengthening during World Environmental Day which is usually slated for 5th June. Improper waste disposal by one student could affect the entire students; it is therefore tasking and necessary for the institutions management to institute regulations on waste disposal.

Literature review

Health promotion in this perspective requires a collaborative exercise by Medical Librarians and their supportive staff who have the prerogative to disseminate information in the institutions or Campus to organize and sensitize students and the institution community on basic needs for proper waste disposal to avoid health menace. According to Anyaoku (2014) Medical Libraries are institutions for health information dissemination and access. They are set up to collect, organize and disseminate health and well-being information in a health, hospital or academic setting. They support medical doctors, nurses, pharmacists, other allied health professionals and students in learning, knowledge acquisition and research through provision of information resources that cover all areas of medical specialties. Evidently, her assertions portray medical libraries as agents that provide health promotion in the work places using information in whatever format, be it print and non-print, e-resources, monographs, serials to sensitize staff and students on the necessary need to avoid indiscriminate refuse disposal.

In the same vein Nongo & Ode (2018) study suggested Health Information Outreach as a means of disseminating information for healthy living of the citizenry. This implies that a well-organized healthy information outreach programme within tertiary campuses could prevent student from the dangers of indiscriminate waste disposal. It therefore

promotes hygiene attitudinal change.

Health as defined by World Health Organization WHO (1948) is "that state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. According to W.H.O the conditions required for health not only include the availability of resources to meet basic human needs and provide protection from all physical and biological environmental hazards but with a sense of security and well-being. Human activities create waste, and it is the poor ways these wastes are handled, stored, collected and disposed, that pose risks to the environment and to public health on campuses.

In promoting health on campuses and at work place environment it is in the Medical Librarians purview to provide information services as quoted by Garfield (1985:40) he made it clear that, "Medical libraries are established to provide services and information resources to support and advance the mission to patient care, research and bio-medical education for health institutions." The library's position within an organization is therefore strategic and pivotal. Information literacy being a vital tool for sustainable development, for any nation to develop, it needs to have and provide relevant, updated and adequate information on food security, democracy, health, education, gender equality etc. Libraries are more disposed in the spread of information than any information-generating profession.

Medical librarians play a critical role in medical education and provide a balanced perspective on medical issues. In addition, a variety of services have been developed to improve information delivery. Information providers are convinced that medical libraries are useful; however, this is not enough. The value of activities performed by Librarians must be demonstrated regularly using both qualitative and quantitative information outreach (Nongo, Ezukwuoke & Adejo 2020). This buttresses the function of carrying out awareness programme on the CHS campus to forestall indiscriminate waste disposal.

Improper waste disposal mechanism around students environment or community is regarded as health hazard and a social problem that needs to be addressed exponentially and these could have arisen due to increasing population of students as well as the emergence of novel COVID-19 pandemic. Therefore, there is need to intensify frequent sanitation exercise on tertiary campus. Waste disposal sensitization and advocacy is not properly practiced; it is the reason and focus of this study that yearly awareness could send prior signals to avert epidemic spread of communicable diseases as man continues to alter the structure and nature of his or her environment. Majority of the problems include indiscriminate disposal of sanitary towels, pests and diseases, poison and pollution, diseases such as corona-virus, tetanus and trachoma. To mention a few, virus and bacteria infection are regarded as psychological impacts which influences students stability to learning in tertiary institutions in the region regarded as the poorest countries in West African region with poorly resourced health system rendering them unable to quickly scale up an epidemic response.

Objectively, the type of waste disposal used in the tertiary campuses needs to be determined by the institution management in order to control its adverse effect which could be threat to students' wellness. Some of these wastes could be solid, and their sources include residential, institutional, commercial and industrial activities. Wastes generated from these various sources some could constitute immediate danger to students on campuses and environment as well. Its effects and hazards cannot be undermined. However, there are also non-hazardous waste which requires collection and transferring to a refuse pits/sites such as decomposed food wastes and rubbish from used glass, paper, cloth or wood which are mainly found amongst students' types of wastes.

Promotion of Healthy Waste Disposal Environment

In view of the foregoing, there is need to provide Healthy Waste Environment for the students welfare on campuses. Below are some of the

precautions in promoting healthy environment for teaching and learning in tertiary campuses with the COVID-19 precautionary measures.

- i. Intensify frequent solid wastes collection and onward transportation.
- ii. Provide 100 yards cubic compact able capacity trucks to evacuate these wastes due to the haulage distance.
- iii. Provide incinerators with extensive emission control with electrostatic precipitation.
- iv. Provision of landfill sites for the campus refuse pits
- v. Medical Librarian continuous sensitization of waste disposal and advocacy.

In commemoration of the World Environmental Day which is slated for every 5th of June, Medical Librarians should use this day and carry out planned sensitization and information literacy for students on campus for awareness of proper disposing of wastes and promote healthy environment. Ever since 1972 and the first United Nations Conference dedicated to human environment, the World Environment Day is celebrated worldwide, every year on the 5th of June is particularly committed to the fight against climate change and the preservation of biodiversity. In the same vein, it is the duty of the librarians to initiate exhibitions of books, e-books, Journals, e-journals to disseminate information literacy on healthy environment

Fig 1: The Sustainable Development Goals (3) Diagram

SDG 3: Ensure healthy lives and promote wellbeing for all at all ages



The SDG 3 has developed 10 targets in achieving healthy lives and promoting wellbeing of its citizens which includes students' health and wellbeing in tertiary institutions in Nigeria. It is emphatic on **SDG 3 sub 3.9** which states "*substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination*". Medical Libraries in tertiary institutions and hospitals acquire, organize and provide access to information. The primary objective is to promote health, wellbeing, reduce mortality and morbidity in populations, which is what the United Nations (UN) agreement on sustainable development goals (SDG) 2030 focuses on Goal 3 target which is "*Good health and wellbeing for all at all ages*" bordering

on pressing international and national health concerns.

To this end, it is professional for Medical Librarians to play the role of planning and executing a strategic healthy campaign and expanding surveillance on healthy waste disposal environment in all over Nigerian's Tertiary Institutions. The emphasis is on the fact that a medical librarian displays professionalism when he or she plans towards an advocacy or sensitization. It is under the librarians purview to ensure that the best available information is provided. They promote access to health information for all, create and maintain conditions of freedom of inquiry, thought, and expression that facilitate informed health care decisions. Provides

leadership and expertise in the design, development, and ethical management of knowledge-based information systems that meet the information needs and obligations of the institution.

Dissemination of knowledge which is the sine qua non of informed decisions in health care education, and research, serves the immediate society which is the tertiary institution community. Therefore, sensitization ensures that informed decisions can be made on waste disposals and avoids disasters on human health and environment at large. Although Nigerian Demographic and Health Survey 2018 reports show indices of improved health in Nigeria.

Medical Libraries as advocates for healthy wastes disposal management

The Medical Libraries play pivotal roles as advocates for healthy wastes disposal in Nigeria tertiary institution by:

- ✚ providing services through information access on healthy waste disposal environment.
- ✚ disseminating healthy waste disposal information and promotion of healthy lifestyles through planned advocacy, sensitization and through selective dissemination of information (SDI).
- ✚ organizing information outreaches with other activities in which the populations already engaged e.g. workshops, conferences, and community events.
- ✚ organizing exhibition in commemoration of a Healthy Waste Disposal Environment in tertiary institutions is another function the Libraries performs as agents to disseminate information resources to students and the community.

Conclusion

The key to successful realization of Sustainable Development Goals (SDGs) 3 in Nigeria is enlightenment/advocacy of preventive health care for all ages. Government cannot on its own alone actualize these goals. It needs to synergize with

agencies to enhance easy access to health information. Medical libraries play a critical roles in medical education by providing relevant information materials to medical students and their host community. These roles are characterized essentially as non-partisan by providing health information that allows users to make informed decisions on waste disposal ethics, improved quality well-being and conducive environment for intellectual activity.

In mitigating the spread and impact of COVID-19 in tertiary environment, sensitization and advocacy as well as adherence as much as possible to WHO's guidelines on prevention, personal hygiene in particular, regular hand washing is vital. Finally, extensive acquisition of information resources for the purpose of health enlightenment, advocacy and sensitization requires competitive intelligence in bibliographic searches by Librarians.

Recommendation

The waste disaster enlightenment education should be carried out within the tertiary institutions in Nigeria through public awareness and community participation this would assist in obtaining guidance on strategic planning of waste disposal management and enhance appropriate levels of corporation and participation. Exhibitions which requires acquiring intellectual materials on display and in features, translate the necessities for students to imbibe the waste disposal cultures. Another aspect recommended for Institutions is the need to institute waste disposal by-laws to avert its menace and infection of the dreaded disease COVID-19 on campus. Provision of more waste disposal facilities as well as provide Personal Protective Equipment (PPE) in every faculty to ensure equitable distribution of refuse dumps.

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