

TRENDS AND PRACTICES OF ENVIRONMENTAL HEALTH EDUCATION: THE 21ST CENTURY CHALLENGES

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Abstract

The practices and trends occasioned by relevant stakeholders and other individuals in the practices of environmental health education has been a source of relief towards a healthy living situation in the 21st Century. Most individuals are consciously or unconsciously been involved in Safekeeping of their immediate environment through the practice of environmental health education program, the relationship between man and his environment is described as being reciprocal because the entire environment has profound influence on man. Environmental health education therefore, is an instrument used to create awareness an issues relating to environmental safekeeping. The main thrust of this paper is centered on the trends and practices of environmental health education and the impeding challenges in the 21st century. Concepts of environmental health education and practices as well as the corresponding dynamics in ensuring safe environment were essentially highlighted. The paper further discussed the practices, components, challenges and the objectives of practicing environmental health education in the digital era were critically accessed. The paper finally made a conclusion that in as much as the world is beginning to acknowledge the relevance in maintaining and sustaining good health status, practice of environmental health education cannot be compromised by any circumstances. Hence, most individuals in the society are consistently manifesting their concerns for ensuring good and safe environment. It is on this premise that the paper recommended some measures that will promote the practice of environmental health education for global best practices. Such measure included among other: application of information communication technology (ICT), developing a relevant health policy and provision for access to other tiers of government with adequate human and material resources to meet up with the challenges in safekeeping of the environment for healthy living. And more essentially, organisation of capacity building initiative and other training and reforming of healthy personnel's should be accorded a top priority in providing quality health care for individuals.

Introduction

Humans are manifesting their concern for the environment in myriad ways. Increasingly, environmental issues influence politics, law, education, religion, investment, life styles and health. It is for this reason that seeking solutions to environmental problems has become a priority on the world's political agenda. Lucas and Gilles (2003) describe the relationship between man and his environment as being reciprocal, because the environment has profound influence on man, whilst, at the same time man extensively alters his environment to suit his needs and desires. Seemingly, the quality of environment on which man lives determines the quality of life he enjoys especially his socio-economic, and health status. However, if peoples are to enjoy good health in a safe and sound environment, the prime

requisite is that they should live in a clean, safe and healthy environment that is conducive for healthy living purposes.

The awareness and understanding of the complexity of the environmental impacts on human health is still growing. There are many unique and complex interactions between humans and the environment. More recently, health educators are becoming aware of the significant contaminants that can impact human health, thereby leading to increasing awareness of the need to manage environment (Iyanda, 2013). Zulis (2020), opines that there are many environmental problems around our cities and rural areas: pollution, waste disposal, slums and all forms and land degradation (erosion, soil infertility, flood, deforestation) due to human activities. The impact of environmental problem has been seen and felt by everybody. Therefore the solution to the many sided problems of environmental issues all around us call for the involvement of all and other relevant stakeholders in the society. It is in recognition of this fact, that education and environmental issues became imperative with particular reference to the 21st century environmental compatibility. Environmental Health Education is a vital tool for environmental protection. As human activities exacerbate environmental concern, Environmental Health Education empowers individuals and communities to make informed decisions promoting ecological balance. This paper explores EHE's potential in fostering sustainable practices, behavioral change, and environmental stewardship. By examining effective strategies, challenges, and opportunities, we can harness environmental health education power to mitigate environmental threats. EHE is an indispensable mechanism for environmental protection, where individuals and communities to make informed decisions in promoting ecological balance for good health condition. The natural environment faces unprecedented threats, from climate change and pollution to deforestation and biodiversity loss. Human activities according to Shehu (2022), are the primary drivers of these environmental protection degradation processes, emphasizing the urgent need for collective action. However, EHE addresses the root causes of environmental problems by fostering sustainable practices, behavioral change, and environmental stewardship.

Effective environmental health education in order to protect the environment as well as individual health status can only be carried out through effective communication, and utilizing all methods of communication, through all forms of media of communication. Effective communication helps to encourage positive behaviors that are environmental friendly in nature while negative behaviors are equally discouraged. Nelson (2022) observed that Environmental Health Education's potential are severally mitigated by so many factors, examining effective strategies, challenges, and opportunities are directed measures in promoting environmental hazards. Environmental education therefore include all forms and process of educating our citizens through communication on matters and issues that affect our environment – homes, villages, cities farmlands, water supplies, forest and weather – in order to improve our environmental awareness and skills and engender a change of attitude towards our environment; has become very important, this action will ultimately arouse concern about the physical problems around us. Through effective communication as a tool in environmental education, most individual will process the required to solve these

problems which threatened to overwhelm individual capacity to maintain good health within the family, school, local community, city, state, nation or even globally.

Environmental health education and practices

Environmental health and practices education had existed a long time ago, dating back to the late 1960's. Its recent re-appearance on the educational policies stems primarily from widespread public concern about devastating in the 21st century with specific emphasis to crises, over population, pollution, utilization and availability of resources (energy) and the general degradation of the environment. Johnson (2023), observed that in times past, Nigeria and other countries on Sub-Sahara Africa, viewed this phenomenon as being a trait of the developed nations in the world. However, in recent times they are increasingly aware on the need to develop individual's growth and social changes- Importance of EHE in environmental protection has severally been stressed to in order to improve people's health knowledge, attitudes and practices. Environmental health education has achieved notable success in industrialized and developing countries but a large proportion of the world's population in developing countries like Nigeria is either ignorant or insufficiently sensitized to issues relating to environmental conservation, environmental degradation (pollution) and their impact on health, welfare and indeed survival of human species. Environmental health education assists the public to understand, appreciate and change attitude favorably towards their immediate environment (WHO, 2018).

Importance of environmental health education

Olaniran, (2020), posited that, environmental health education is currently gaining prominence in Nigeria because of human activities on the international focus of the impact of human activities on the environment has been called for a great concern. The link between environment and individual's health status is fairly understood by an average person in most developed and developing nations of the world. In Nigeria, for instance, the level of environmental practices is still low and the basic knowledge and understanding of the relationship between environment and health is not significant enough to improve individuals' health practices within the environment.

Environmental health education is concerned with the study of people's behaviour towards the environment in relation to health, as well as their reaction towards the environmental health education programmes and environmental health educators in the total environment. It is concerned with the use of educational processes including consumer participation and motivational, facilitating and helping methods and techniques paying particular attention to the total setting of the consumer to bring about positive environmental behaviour. EHE provides awareness and understanding about environmental problems in Nigeria. These provisions have been summarized by NEST (1991). Environmental health education can be used as a tool to create awareness on the causes of environmental problems and their health implications. For instance, all forms of human activities in land lead to a general lowering of natural fertility and productivity resulting in insufficient food production, lack of food which may likely results in starvation and malnutrition. Soil erosion may also result in loss of residential houses, farm crops, changes in topography and

hydrology of the affected areas, disruption of communication lines and other economic losses (Ekpoh, 2023).

Lack of residential houses may result in physical and mental health problems, such as headache, exposure to cold, hypertension, communicable diseases and other stress related illnesses. In related development environmental health education is needed to create awareness about factors in sustainable environment. The prevention/control of environmental diseases should be undertaken at personal, community, national and international levels. This development was prominent in the International Conference on the prevention/controls of malaria in February 2002, at Abuja – Nigeria. With the theme “Roll Back Malaria”: This confirms the fact that environmental health education emphasizes sustainable development for individuals’ healthy living process. Environmental health education equips people with the right knowledge, attitudes, motivation and commitment to act either alone or in groups to find lasting solution to the existing problems and prevent/control the emergence of diseases and enhance wellness or well-being of individual both in developed and developing countries in the world (Gregory, 2020).

Man needs education to protect the environment and prevent diseases. Environmental protection include prevention of pollution of water, air and land, proper disposal of refuse, building of standard housing, utilization of proper farming methods, tree planting, conservation of natural resources and others. Most importantly, air, water, food comes from the environment and these are basic necessities of life therefore the need to protect our environment has become very imperative.

The role of environmental health education in environmental protection

Derek, (2020), observed that environmental Health Education (EHE) plays a vital role in environmental protection by empowering individual’s communities, and societies to make informed decisions in promoting ecological balance. Environmental Health Education addresses the immediate and remote causes of environmental problems, as well as fostering sustainable practices, behavioral changes and environmental stewardship. Environmental Health Education is crucial for environmental protection activities, by integrating EHE into various settings, can foster culture of sustainability promoting ecological balance and human well-being. Addressing challenges and leveraging opportunities will ensure EHE’s effectiveness in militating against environmental threats in any form, in the final analysis, environmental health education and practices, has the capacity of:

1. Fostering sustainable practices: Environmental Health Education promotes environmentally friendly behaviors, reducing harm to the environment.
2. Promoting behavioral change: Environmental Health Education encourages individuals to adopt eco-friendly habits.
3. Encouraging environmental stewardship: Environmental Health Education empowers communities to manage natural resources.

Effective strategies for promoting environmental health education

The World Health Organization (WHO, 2001) technical impact provide some effective environmental health education requires a multifaceted approach. Incorporating these strategies to engage, educate, and empower individuals and communities to cope with all forms of environment and health challenges associated with poor healthy living dynamic. Some of the outstanding strategies that can promote environmentally friendly system.

Educational strategies

Includes:

- i. Interdisciplinary approaches: Integrate environmental health education into various subjects.
- ii. Hands-on activities: Engage students in practical experiences, such as field trips and experiments.
- iii. Real-world applications: Connect theoretical concepts to everyday life.
- iv. Storytelling: Use narratives to convey environmental health messages.
- v. Gamification: Utilize games and simulations to promote learning.

Community-based strategies

- i. Community engagement: Involve local communities in environmental decision-making.
- ii. Partnerships: Collaborate with organizations, governments, and businesses.
- iii. Outreach programs: Conduct public awareness campaigns.
- iv. Volunteer opportunities: Encourage community service.
- v. Capacity building: Train community leaders.

Technology-enhanced strategies

Environmental health education practices could be enhanced through the application of Technological driven strategies. Ikhioya (2024), advocated several technological driven measure which are capable of promoting individuals capacity to develop good health knowledge. Attitude and practices (KAP) in protecting and sustaining healthy living conditions. The 21st century development strategy has proved beyond all reasonable level that the following strategies that are technologically oriented in nature will provide the individual with the modern method of protecting our immediate environment.

- i. Digital resources: Utilize online platforms, apps, and multimedia.
- ii. Virtual field trips: Conduct online explorations.
- iii. Social media campaigns: Leverage social media for outreach.
- iv. Online courses: Offer web-based training.
- v. Data analysis: Use technology to track environmental data.

Policy and advocacy strategies

- i. Policy development: Advocate for environmental health policies.
- ii. Legislation support: Encourage policy implementation.

- iii. Stakeholder engagement: Collaborate with decision-makers.
- iv. Public awareness campaigns: Influence policy through awareness.
- v. Community mobilization: Organize community action.

Evaluation and assessment strategies

- i. Needs assessments: Identify community needs.
- ii. Program evaluation: Monitor effectiveness.
- iii. Outcome-based education: Focus on measurable outcomes.
- iv. Continuous improvement: Refine programs based on feedback.
- v. Research integration: Incorporate research findings.

Capacity building strategies

- i. Teacher training: Enhance educator capacity.
- ii. Professional development: Offer workshops and conferences.
- iii. Mentorship programs: Pair experienced professionals with novices.
- iv. Leadership development: Foster environmental leaders.
- v. Networking opportunities: Facilitate collaboration.

Cultural sensitivity strategies

- i. Cultural relevance: Tailor programs to local contexts.
- ii. Inclusive language: Use accessible language.
- iii. Diversity and equity: Address environmental justice.
- iv. Traditional knowledge: Incorporate indigenous perspectives.
- v. Community ownership: Empower local communities.

Funding and resource strategies

- i. Grants and funding: Secure financial support.
- ii. Resource development: Create educational materials.
- iii. Partnerships and collaborations: Leverage resources.
- iv. Volunteer engagement: Utilize volunteer expertise.
- v. Sustainability planning: Ensure long-term program viability.

Challenges and opportunities on environmental health education

By acknowledging challenges and leveraging opportunities, environmental health education can overcome obstacles and achieve its goals. However, Coke (2022), discovered that some challenges or obstacles has consistently instigating successful implementation of some environmental health issues. Some of those challenges are as follows:

1. Institutional Challenges: such as Limited resources, inadequate policy support, insufficient teacher support, crowded curricula, and lack of institutional commitment
2. Socio-cultural Challenges: these challenges include Limited community engagement, cultural and linguistic engagement, socioeconomic disparities, and environmental skepticism.

3. **Pedagogical Challenges:** these are difficulty in integrating environmental health issues into existing curricula, limited availability of educational resources, inadequate assessment tools, lack of hands-on learning opportunities and Limited Technology Integration (LTI) process.
4. **Economic Challenges:** These are economic challenges which include funding constraints, limited job opportunities in environmental health, economic competing interests, high costs of environmental health initiatives and limited access to technology development initiative.

Opportunities in environmental health education

1. **Digital learning platforms:** These platforms provide online access to educational resources, courses, and degree program on learning environmental health education programs.
2. **Virtual field trips:** these are guided, interactive, and immersive educational experiences that explore places, environment or situation remotely in order to promote environmental health education in the community.
3. **Social media campaigns:** this is the use of social media in advertising the usefulness and good benefit of keeping good and healthy environment and it help individual to learn about environmental health education.
4. **Online educational resources:** this is the use of online websites or online learning platform in advertising the good effectiveness of environmental health education.
5. **Mobile apps for environmental education:** they offer interactive and engaging opportunities for environmental health education.
6. **Government initiatives:** they play a crucial role in promoting environmental health education like the funding for environmental health education projects and developments of environmental education standards.
7. **Private sector engagement:** their collaborative research and development, workforce development and training and also environmental literacy program
8. **Environmental policy development:** integrating environmental health education into policy and also developing environmental health standards as well as supporting research and development.
9. **Legislation support:** they help in the funding for environmental health education programs and professional development for educators.
10. **Public awareness campaigns:** raises awareness of environmental health issues and educate the public on preventive measures as well as encourage behavior change
11. **Community mobilization:** they raises awareness of environmental health issues and faster collective action and behavior change they also empower communities to take ownership and environmental
12. **Research and evaluation:** these are crucial components of environmental health education as they help in investigating the impact of environmental

factors on human health and examining the role of environmental health literacy in behavior change

13. Teacher training programs: teacher are essential for integrating environmental health education as they help develop teaching skills and methodologies and integrate environment health education into curricula and they also help to enhance teacher's knowledge of environmental health issues
14. Professional development workshops: they help update knowledge on environmental health issues and enhance community engagement and outreach.
15. Leadership development initiatives: build capacity for environmental health leaderships, foster collaboration and partnership and they also support innovative solutions and initiatives
16. Mentorship programs: provide guidance and support, peer mentoring, reverse mentoring and virtual mentoring
17. Networking: conferences and workshops, professionals associations, online forum and social media groups

Conclusion

The world is beginning to acknowledge the relevance of manifesting, promoting and developing good environmental health practices to meet up with the global list practices. Ensuring good healthy long condition of citizens in developed and developing countries in Sub-Sahara Africa cannot be composed. In as much as the society is manifesting several concerns for environmental sustainability, individuals' health status cannot be left out in any health development policy. Environmental health education (EHE) is a veritable tool for promoting environmental health practices, human health, and sustainable development. Effective EHE empowers individuals and communities to make informed decisions, adopt eco-friendly behaviors, and mitigate environmental threats. By addressing the root causes of environmental degradation, EHE fosters a culture of sustainability, ensuring a healthier environment and a more sustainable future.

Environmental health practices have been the local point for developing good health practices. It is in this backdrop that the following recommendations are made to foster more action and policies for good healthy living and for natural development:

1. Application and utilization of information and communication technology should be considered as a measure in promoting good health environmental health practices
2. Adequate human and material resources should be provided to all tiers of government in order to ensure a multi-sectorial development of environmental health practices for global best practices
3. Successive government should step up the enforcement of the blueprint of environmental health education regulation.
4. Individual at the community level should be encouraged to prioritize their interest in community participation in environmental decision making process.

5. A co-friendly initiative and development positive of behaviours towards good environmental health education practices should be developed to foster community based initiative
6. Development of innovative education technologies should also be encouraged to meet up with the world health organization (WHO) standard

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