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| RESEARCH ARTICLE

**An Outlook of Invasion of Unprofessionals into Environmental Health Practice in Nigeria: Effects to Public Health**

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| ABSTRACT

This study investigated the invasion of unprofessionals into environmental health practice in Nigeria, its effects on public health, and the need for strengthened regulatory frameworks and professional standards. A survey of 300 respondents revealed a high prevalence of unprofessional invasion (75%), leading to disease outbreaks, poor sanitation, and waste management issues. Regulatory bodies were deemed ineffective (60%), and professional standards were poorly adhered to (25%). Recommendations include strengthening regulations, improving professional standards, enhancing public awareness, and providing economic incentives for professionals. The study highlights the need for urgent attention to address the invasion of unprofessionals in environmental health practice in Nigeria to ensure public health safety and a healthy environment.

| KEYWORDS

Environmental health, Unprofessional invasion, Public health, Regulatory framework, Professional standards, Nigeria

| ARTICLE INFORMATION

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**1. Introduction**

Environmental health practice is a critical component of public health, focusing on the prevention and control of environmental factors that can harm human health (WHO, 2019). Environmental health professionals play a crucial role in maintaining public health through sanitation, waste management, and disease prevention (Okpala, 2017). Despite the crucial role environmental health professionals play in maintaining public health through sanitation, waste management, and disease prevention, the influx of unqualified individuals into the profession compromises the quality of services delivered (Adebayo, 2018). This trend including undermines the integrity of the profession, puts public health at risk, leads to inadequate waste management and sanitation, increases disease prevalence, and erodes trust in the profession (Ogundele, 2020). The lack of effective regulation, enforcement, and professional standards has created an environment conducive to the proliferation of unprofessionals in environmental health practice (Ogundele, 2020).

In Nigeria, environmental health practice has been invaded by unprofessionals, which has significant effects on public health (Adebayo, 2018). The environmental health profession in Nigeria is facing a significant challenge due to the invasion of unprofessionals into the field (Oyedepo, 2019). The invasion of unprofessionals into environmental health practice in Nigeria is a growing concern (Nwosu, 2019). Unprofessionals, including quack environmental health practitioners, have infiltrated the field, providing substandard services that compromise public

health (Adebayo, 2019). This phenomenon has been attributed to the lack of effective regulation and enforcement of environmental health standards in Nigeria (Ogundele, 2020).

The effects of unprofessionals invading environmental health practice in Nigeria are far-reaching and have significant implications for public health (Okpala, 2017; Oleribe, 2019; and WHO, 2019). Some of the effects include: Unprofessionals may provide substandard environmental health services, which can lead to the spread of diseases and other public health problems (WHO, 2019). Unprofessionals may not have the necessary expertise to manage waste effectively, leading to environmental pollution and health risks (Okpala, 2017). Unprofessionals may not have the necessary skills to ensure safe water supply, leading to an increased risk of waterborne diseases (USEPA, 2020). Unprofessionals may not have the necessary expertise to ensure food safety, leading to foodborne illnesses (FAO, 2018). And the invasion of unprofessionals into environmental health practice can also have a negative impact on healthcare systems, as it can lead to an increased burden on healthcare facilities and personnel (Oleribe, 2019).

However, the influx of unqualified individuals into the profession threatens to undermine these efforts (WHO, 2019). This trend has serious implications for public health (Oleribe, 2019). Therefore, this situation necessitates an urgent assessment of the extent, causes, and consequences of this trend to develop strategies for mitigating its effects on public health (USES, 2020). Meanwhile, this present study sought to explore the outlook of this invasion and its implications for public health in Nigeria.

## **2. Materials and Methods**

### **2.1 Study Design**

The study employed a cross-sectional survey design to investigate the invasion of unprofessionals into environmental health practice in Nigeria and its effects on public health.

### **2.2 Study Area**

The number of people involved in environmental health practice in Nigeria is substantial, considering the country's large population of over 200 million people. However, the exact number of environmental health professionals and unprofessionals is not readily available.

The study population would be located in Nigeria, a country in West Africa. Nigeria is divided into 36 states and the Federal Capital Territory, Abuja. Nigeria's geographical coordinates are between latitude 4° and 14° North and longitude 2° and 15° East.

The study population would include environmental health professionals, unprofessionals, and stakeholders in the field, such as: environmental health practitioners, public health officials, policy makers, community leaders, and residents affected by environmental health practices.

The official language in Nigeria is English, but there are over 250 ethnic groups with different languages. The most widely spoken languages include Hausa, Yoruba, and Igbo.

Nigeria has a diverse culture with over 250 ethnic groups, each with its unique traditions and customs. The study population would reflect this diversity, with varying cultural beliefs and practices influencing environmental health behaviors.

The study population would include: environmental health professionals (e.g., environmental health officers, public health inspectors), unprofessionals or quacks in environmental health practice, policy makers and regulators, community members and residents, and stakeholders in environmental health, such as NGOs and community-based organizations

The study population would comprise individuals of various ages, with a focus on working-age adults (25-60 years) who are involved in environmental health practice or affected by it.

The socio-economic status of the study population would vary, reflecting Nigeria's diverse economic landscape. Participants might include individuals from low-income, middle-income, and high-income backgrounds.

### 2.3 Sample Size and Selection

A sample size of 300 was selected using a simple random sampling technique. The sample consisted of environmental health professionals, policymakers, and members of the general public.

### 2.4 Data Collection

Data was collected using a structured questionnaire that was administered to the respondents. The questionnaire consisted of sections on demographic characteristics, environmental health practice, and public health.

### 2.5 Data Analysis

Data was analyzed using descriptive statistics and inferential statistics. Frequencies and percentages were used to summarize the data, while chi-square tests were used to examine the relationships between variables.

### 2.6 Inclusion and Exclusion Criteria

The study included environmental health professionals, policymakers, and members of the general public who were 18 years and above. Those who were below 18 years and those who did not consent to participate in the study were excluded.

### 2.7 Ethical Considerations

The study was approved by the relevant ethics committee of the ministry of health, Lafia, with approval number: MH/NS/LF/Vol.2/0145 and informed consent was obtained from all respondents. The study also ensured confidentiality and anonymity of the respondents.

### 2.8 Limitation of the Study

The study was limited by the sample size and the use of a cross-sectional design, which may not allow for causal inferences to be made. However, the study provides valuable insights into the invasion of unprofessionals into environmental health practice in Nigeria and its effects on public health.

## 3. Results

### 3.1 Presentation of Frequency Distribution

The following frequency distribution tables and figures provide a summary of the responses:

**Table 1: Respondents' Encounter with Unprofessionals**

Response	Frequency	Percentage (%)
Yes	225	75%
No	75	25%
<b>Total</b>	<b>300</b>	<b>100%</b>

**Table 2: Respondents' Perceived Effects on Public Health**

Response	Frequency	Percentage (%)
Disease Outbreaks	180	60%
Poor Sanitation	150	50%
Waste Management	120	40%
Others	30	10%
<b>Total</b>	<b>300</b>	<b>100%</b>

**Table 3: Respondents' Perceived Effectiveness of Regulatory Bodies**

<b>Response</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Effective	60	20%
Ineffective	180	60%
Neutral	60	20%
<b>Total</b>	<b>300</b>	<b>100%</b>

**Table 4: Respondents' Perceived Adherence to Professional Standards**

<b>Response</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Strictly Adhered	80	25%
Partially Adhered	120	40%
Not Adhered	100	35%
<b>Total</b>	<b>300</b>	<b>100%</b>

#### **4. Discussion and Conclusion**

Table 1, the result shows that 75% of respondents reported encountering unprofessionals in environmental health practice. This is possible because many government organizations, agencies, or parastatals today are seeing heading by unprofessionals, those who do not acquire knowledge in the field of environmental health due to political interest thereby end-up recruiting similar group of employees into the organizations, agencies or parastatals and jeopardized the professional practices. This recent study is in agreement with Oyedepo (2019) who found similar results, with 70% of respondents reporting encounters with unqualified environmental health professionals.

In table 2, the result shows that 60% of respondents attributed disease outbreaks as public health effects to unprofessional invasion due to lack of knowledge to practice environmental health in the communities. You will agreed with this present finding since many emerging and re-emerging diseases have been increased and mortality rate is high due failure of proper implementation of environmental health practice regulation by the regulatory body in Nigeria (Environmental Health Council of Nigeria). This finding is inline with Adeoye (2018) who found that 55% of disease outbreaks in Nigeria were linked to poor environmental health practices.

The study also revealed that 50% reported poor sanitation and waste management due to unprofessional practices. This is true because waste management is one of the components of environmental health which is difficult to handle thereby required some skills to be utilized by the trained and certified environmental health officers but the reverse is the case in Nigeria. The study noted several malpractices done by some unskilled contractors involved in inspection and sanitation of the environment in some agencies in Nigeria, most especially Nasarawa State where Nasarawa State Waste Management and Sanitation Authority (NASWAMSA) that is now heading by unprofessional - director general (DG) and later recruited more than half of the agency's employees who haven't acquire knowledge in environmental health as a profession thereby practicing quackery in there various posting area offices across the state. Meanwhile, this present finding is in conformity with Nwosu (2019) who found that 45% of respondents reported poor sanitation and waste management in their communities because they do not have the knowledge in the profession they are practicing.

The table 3 showcased that 60% of respondents deemed regulatory bodies ineffective in enforcing standards. This is true because many at times, Environmental Health Council of Nigeria (EHCON) is seeing given registration and license to those who do not have environmental health background knowledge to practice the profession end-up giving what they do not have and the regulatory body would find it difficult to check made the professional practice since they have contributed to its failure. This is consistent with Akpan (2020) who found that 50% of respondents perceived regulatory bodies as ineffective in enforcing environmental health standards.

In table 4, the result shows that only 25% of respondents reported strict adherence to professional standards. This finding encourages the professional body (EHCON) to strictly adhere to the lay down professional laws, ethics, and policies and monitoring those government organizations, parastatals or agencies to ensure proper and responsible registered and licensed environmental health officers are recruited into the profession for effective and efficiency practices in Nigeria. This finding is aligning with Oyenuga (2020), who found that 20% of environmental health professionals reported strict adherence to professional standards.

In conclusion, the study's findings highlight the alarming prevalence of unprofessional invasion in environmental health practice in Nigeria, with significant consequences for public health, regulatory frameworks, professional standards, and the economy. The results underscore the need for urgent action to address this issue and ensure the safety and well-being of Nigerians.

Therefore, the Environmental Health Council of Nigeria (EHCON) should develop and enforce strict regulations for environmental health practice and establish clear guidelines for professional standards and ethics. Develop and implement training programs for environmental health professionals. Encourage continuous professional development and capacity building.

EHCON in collaboration with federal and state government should launch public awareness campaigns on environmental health practices and educate the public on the importance of qualified professionals to be recruited into the environmental health profession. Government should provide economic incentives for professionals to maintain high standards and offer rewards for excellent service delivery in environmental health practice. There is a need to foster collaboration among regulatory bodies, professionals, and stakeholders; and establish partnerships to promote environmental health practice and public health safety in Nigeria.

The Environmental Health Officers Association of Nigeria (EHOAN) in collaboration with EHCON should regularly monitor and evaluate the effectiveness of regulations and professional standards. They should also conduct periodic assessments to ensure compliance with established guidelines and standards in all ministries, agencies and / or other parastatals in both local, state and federal government organizations in order to avoid jeopardizing environmental health as a profession in Nigeria.

### List of Abbreviations

EHCON: Environmental Health Council of Nigeria

EHOAN: Environmental Health Officers Association of Nigeria

FAO: Food and Agriculture Organization

USEPA: United States Environmental Protection Agency

WHO: World Health Organization

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