IMPROVING CAREER PROSPECTS OF HEALTH EDUCATION GRADUATES IN THE 21ST CENTURY: NEED FOR CURRICULAR INNOVATION AND REVIEW

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Abstract

There are persistent concerns regarding the career opportunities available to student health educators upon graduation from Faculties of Education as expressed by both still on the programme and those that have graduated. This issue continues unabated, as many graduates report limited career prospects, often attributed to insufficient exposure to key health science principles. This study was conducted to examine students' perceptions of existing career opportunities and the potential impact of introducing selected courses to enhance their career prospects. A total of 2,030 respondents were surveyed using a purposive sampling technique. Data were collected electronically via Google Forms, utilising two validated instruments: the Career Opportunity Questionnaire (COQ) (reliability coefficient r = 0.88) and the Curriculum Innovation Questionnaire (CIQ) (reliability coefficient r = 0.91). The findings offer valuable insights into respondents' perceptions of how the integration of new curricular components such as practical courses, sociology of health, essential drugs, introductory pharmacology, and expanded anatomy and physiology could improve career opportunities for graduate health educators in Nigeria. Notably, the average mean score of 3.06, which exceeded the criterion mean of 2.50, indicated a generally positive perception of curriculum enrichment as a strategy for enhancing employability and professional relevance in the contemporary job market. It was therefore concluded that the introduction of relevant new courses is essential. The study recommended a focused review and enhancement of the health education curriculum in Nigeria to better equip graduates for diverse and evolving career pathways in the 21st century.

Introduction

When Health Education was first introduced as a course of study within faculties of education over two decades ago, it emerged under the strong shadow of Physical Education, which at the time had already been well established. This historical overlap meant that Health Education was not originally given a distinct disciplinary identity; instead, it was largely subsumed within a framework heavily biased towards physical activities and sports science. As a result, the curriculum that developed was deeply influenced by scholars and curriculum developers whose academic grounding was primarily in Physical Education rather than the broader public health or health promotion domains (Okueso and Okanlawon, 2016). This foundational misalignment has had lingering consequences on the structure and relevance of the Health Education curriculum.A clear example of this was found in the recently developed Core Curriculum Minimum Academic Standard (CCMAS), where Anatomy and Physiology: The course was meant to discus; basic and detailed concepts of

the human physiology and anatomy. Basic structures of the human body. Body planes; directions and cavities. Body systems (integumentary, skeletal, muscular, circulatory, lymphatic, nervous, special senses, respiratory, digestive, urinary, endocrine and reproductive) will be explored. The human anatomy in relation to muscle movements and the physiology of the human body. A hands-on laboratory-based course that investigates the structure and function of the human body. Topics covered include the basic organization of the body and major body systems along with the impact of diseases on certain systems. The basic principles of how the human body systems functions both at the micro and macro level. Using a wide variety of print and web-based resources along with hands-on learning activities and laboratories utilizing models to investigate the structures and functions of the human body systems. Demonstrative practical sessions with the use of models and charts to afford practice in drawing and close examination of body structures will be done in this single stream.

The course is essential for understanding bodily functions and health conditions are compressed into a single course coded EHE 213 how can the contents above be covered in a single course? This course, expected to cover multiple complex body systems, is allotted only few contact sessions, which is grossly inadequate for such foundational knowledge, it should ordinarily be divided into at least three parts to cover all the systems of the body including the sensory organs. Similarly, the Drug Education component within the curriculum remains narrow in scope, focusing primarily on alcohol and tobacco use while excluding essential drug's education that would prepare graduates for roles in community health, pharmaceutical education, or health counselling on the misuse and abuse of commonly accessed drugs like antibiotics. These curricular gaps point to an underlying systemic problem such as the continued influence of outdated curricular perspectives and a lack of representation from core health science experts in curriculum development (Abdullah, 2021). This misalignment has hindered the evolution of Health Education into a robust and independent discipline capable of equipping graduates with the competencies required to thrive in a dynamic and interdisciplinary health sector.

Health education as a discipline is central to promoting individual and public health by equipping graduates with the knowledge and skills necessary to advocate for healthier lifestyles, influence health policy, and design effective health promotion interventions (World Health Organization, 2021). However, despite its significance in addressing contemporary public health challenges, there remains a growing concern among students and graduates of health education particularly those trained within faculties of education regarding limited career opportunities and inadequate professional prepared ness (Okafor, 2019; Adebayo and Ige, 2022). In the contemporary world, the role of health educators has evolved significantly beyond the traditional confines of school health programmes, which once constituted the primary focus of the discipline. Initially, health education was primarily designed to promote the physical and mental well-being of school-aged children through structured interventions within educational settings. However, as global health challenges have become increasingly complex, ranging from non-communicable diseases, and pandemics to mental health crises and health inequities, the demand for health educators with broader and more interdisciplinary competencies has grown correspondingly (Okueso

and Odumosu, 2022; Okueso and Fejoh, 2024).Recognising the foundational contributions of Nigeria's early health education pioneers is essential, as their efforts established the framework for the discipline's growth and evolution. Notable figures such as Z.A. Ademuwagun, J.A. Ajala, C.O. Udoh, O.G. Oshodin, A.F.A. Folawiyo, I. Owie, O.C. Nwana, G.B.I. Onuha, J.O. Adeniyi, and J. Fawole played pivotal roles in shaping health education in Nigeria. Many of these scholars received advanced training abroad, particularly in the United States, equipping them with comprehensive knowledge in health education principles and practices, which they subsequently applied within the Nigerian context. Building upon the solid foundation laid by these pioneers is imperative to advance health education in Nigeria through continuous curricular innovations. This involves adapting to contemporary public and global health challenges by integrating interdisciplinary approaches, embracing technological advancements, and aligning with 21st-century educational standards to ensure the discipline remains responsive and effective. Today, health educators are increasingly recognised as valuable contributors across diverse sectors including public health, community development, workplace wellness, digital health innovation, and international development. Their roles now encompass health promotion, behavioural change communication, advocacy, health systems strengthening, and capacity building at various levels of society. This shift reflects a more holistic understanding of health and well-being, underscoring the need for a more comprehensive and interdisciplinary approach to training. As such, health education must adapt by redefining its scope and reorienting its curriculum to equip graduates with the skills necessary to meet the demands of a rapidly changing global health scene.

Anecdotal and empirical reports reveal persistent dissatisfaction among health education graduates at both local and international environment on their limited exposures to principles guiding health sciences (Okueso and Okanlawon, 2016). Many express uncertainties about career pathways outside formal teaching roles, while others struggle to compete with graduates of community or public health disciplines who possess more diverse and practice-oriented training (Eze and Olayemi, 2020). Furthermore, graduates frequently identify major gaps in their training, citing inadequate exposure to practical field experiences, insufficient grounding in basic health sciences such as introduction to pharmacology, anatomy and physiology, as well as a lack of sociological and psychological perspectives on health (Ajayi and Aluko, 2021). These deficiencies not only reduce their competitiveness in multidisciplinary health environments but also undermine their ability to contribute innovatively to pressing health challenges.In today’s rapidly changing health landscape, the role of a health educator transcends traditional classroom instruction. Health educators are now expected to function in diverse sectors, including non-governmental organisations (NGOs), public health departments, community development agencies, corporate wellness programmes, health communication platforms, and international development institutions (U.S. Bureau of Labor Statistics (BLS), 2023). These roles require an integrative and hands-on educational experience that fuses pedagogy with competencies in health sciences, digital literacy, advocacy, communication, systems thinking, and programme evaluation (Nutbeam and Muscat, 2021). Curricular innovation and periodic review are essential in maintaining the relevance and responsiveness of health

education programmes to labour market dynamics. A modernised curriculum should incorporate interdisciplinary content, field-based learning, and modules on entrepreneurship, global health, behavioural change communication, and technology in health promotion (Kees and Bertsche, 2021). Such reforms will not only enhance graduate employability but also reposition health education as a vibrant and adaptive discipline capable of addressing the health needs of modern societies.

This study, therefore, seeks to explore how curricular innovation and review by adding some health science courses can significantly enhance the career prospects of health education graduates, particularly those trained in faculties of education. It will identify existing willingness of the existing students that are yearning for improved career opportunities and improvement in the curriculum design that aligns with 21st-century workforce demands.

Methodology

A descriptive survey research design was adopted to investigate the perceptions of student health educators, with a focus on graduating students- third and fourth year enrolled for full-time and part-time programmes in their third and fourth year within the Faculty of Education. A purposive sampling technique was employed to select a total of 2,030 respondents from universities, Nigeria. Data were collected electronically using Google Forms to ensure wide accessibility and participation. The instruments used for data collection were the Career Opportunity Questionnaire (COQ) (reliability coefficient r = 0.88) and the Curriculum Innovation Questionnaire (CIQ) (reliability coefficient r = 0.91), both of which were pre-validated and structured to capture relevant information on the study objectives. The deliberate inclusion of graduating (300 and 400 levels) students was based on their imminent transition into the workforce, which positions them to provide informed insights into career-related concerns and expectations. Their responses are considered critical for identifying viable strategies to enhance post-graduation career opportunities. The online administration of the questionnaires facilitated efficient data collection across a large and dispersed population. Data were analysed using descriptive statistical methods, including percentages, means, and standard deviations, to answer the research questions and provide a clear understanding of the patterns and trends within the dataset.

Results

Research Questions 1: What is the current career prospect of health education graduates on emerging opportunities in public health, corporate wellness, and international development as perceived by students?

Table 1: Descriptive statistics showing the current career prospect of health education graduates on emerging opportunities in public health, corporate wellness, and international development

Statement	SA (n/%)	A (n/%)	D (n/%)	SD (n/%)	Mean	SD
Health education graduates have increasing opportunities in public health due to the rising global focus on preventive healthcare.	1,015 (50.0%)	812 (40.0%)	101 (5.0%)	102 (5.0%)	3.20	0.80
Health education as it is structured will not enhance opportunity for corporate career prospects for graduates.	914 (45.0%)	812 (40.0%)	203 (10.0%)	101 (5.0%)	3.10	0.90
The demand for health education specialists in international development organisations is growing due to global health challenges.	1,015 (50.0%)	710 (35.0%)	203 (10.0%)	102 (5.0%)	3.20	0.80
Emerging technologies in digital health expands career options for health education graduates.	812 (40.0%)	812 (40.0%)	203 (10.0%)	203 (10.0%)	3.00	0.90
Limited recognition of health education as a profession hinders graduates from accessing diverse career opportunities.	609 (30.0%)	609 (30.0%)	406 (20.0%)	406 (20.0%)	2.50	1.00
Criteria mean=2.5; Average mean=3.00						

Table 1 presented the descriptive statistics on the career prospects of health education graduates in public health, corporate wellness, and international development. The data revealed a broadly positive perception of career prospects among health education graduates, especially in public health and international development. A significant 90% of respondents agreed or strongly agreed that opportunities in public health are increasing due to the global shift towards preventive healthcare, reflected in a high mean score of 3.20 and a low standard deviation (0.80), indicating strong consensus. Similarly, 85% believe that demand is growing for health education specialists in international development, driven by pressing global health challenges such as pandemics and climate change. While emerging technologies in digital health also present promising career avenues with 80% of respondents expressing agreement where there is slightly more variability in responses (mean = 3.00, SD = 0.90), suggesting uneven exposure or readiness among graduates. Despite these positive trends, serious concerns remain. A notable 85% of participants agreed that the current structure of health education does not sufficiently support career advancement in the corporate wellness sector, suggesting that the curriculum lacks alignment with evolving employer expectations. Furthermore, perceptions are divided on whether limited recognition of the profession hinders access to diverse opportunities—only 60% agreed with this position, and the equal 20% disagreeing and strongly disagreeing (mean = 2.50, SD = 1.00) points to regional or experiential differences.

Research Question 2: Will the inclusion of new courses (practical courses, sociology of health, essential drugs, Introduction to pharmacology expanded anatomy and physiology) improve career opportunities for graduate health educators as perceived by student health educators in Nigeria?

Table 2: Descriptive statistics showing respondents' perceptions of how the inclusion of new courses (practical courses, sociology of health, essential drugs, Introduction to pharmacology expanded anatomy and physiology) improve career opportunities for graduate health educators in Nigeria

Statements	SA (n/%)	A (n/%)	D (n/%)	SD (n/%)	Mean	SD
The integration of new curricular content will enhance graduates' competence, making them more competitive in the job market.	945 (46.5%)	710 (35.0%)	253 (12.5%)	122 (6.0%)	3.22	0.85
Including sociology of health will improve graduates' ability to address social and behavioural health challenges.	812 (40.0%)	761 (37.5%)	305 (15.0%)	152 (7.5%)	3.10	0.89
Knowledge of essential drugs will expand career opportunities in pharmaceutical education and community health.	1,014 (50.0%)	609 (30.0%)	254 (12.5%)	153 (7.5%)	3.22	0.87
Training in pharmacology will enable graduates to work as health practitioners and in pharmaceutical sales outlets.	762 (37.5%)	710 (35.0%)	355 (17.5%)	203 (10.0%)	3.00	0.95
A strong foundation in physiology and practicals will create opportunities in fitness, rehabilitation, and occupational health.	610 (30.0%)	655 (32.5%)	457 (22.5%)	308 (15.0%)	2.77	1.02
Criteria mea:2.50; Average 3.06						

The data presented in Table 2 presented insight into respondents' perceptions regarding how the integration of new curricular components such as; practical courses, sociology of health, essential drugs, introductory pharmacology, and expanded anatomy and physiology could enhance career opportunities for graduate health educators in Nigeria. Notably, the average mean score of 3.06, which is well above the criteria mean of 2.50, reflects a generally favourable perception of curricular enrichment as a means of improving employability and relevance in today's job market.

The strongest levels of agreement were seen in responses to statements on the inclusion of new content to boost graduates' job market competitiveness and knowledge of essential drugs, both with mean scores of 3.22, indicating widespread support. These

responses suggest that respondents believe practical and pharmaceutical-related knowledge areas could significantly widen the scope of employment for health education graduates, particularly in pharmacological education and community-based health interventions. Similarly, the inclusion of sociology of health was viewed positively (mean = 3.10), with many agreeing it would enhance the graduates' ability to address behavioural and social health issues which is an increasingly critical aspect of public health. Pharmacology training was also rated favourably (mean = 3.00), although with a slightly higher standard deviation (0.95), suggesting some variation in perceptions, possibly due to uncertainties around the regulatory boundaries of non-clinical graduates working in pharmaceutical sectors. The lowest-rated statement pertained to training in physiology (mean = 2.77), which, although still above the criteria mean, attracted more disagreement and the highest standard deviation (1.02), indicating divergent views on its relevance to employability in areas like fitness and occupational health. The data summarily points to a strong endorsement for curricular innovation, particularly in practical and interdisciplinary health content, as a strategy to enhance the career prospects of health education graduates in Nigeria.

Discussion of findings

The findings of this study align with existing empirical literature highlighting the evolving landscape of career opportunities for health education graduates, particularly in public health and international development. The increasing recognition of preventive healthcare as a global priority has indeed opened more career pathways, as noted by Frenk et al. (2010), who argued for a transformation in health professional education to meet 21st-century health system needs, especially in prevention and health promotion. Similarly, the growing relevance of health education in addressing global health challenges such as pandemics and climate change supports the respondents' optimism about international development careers. According to Crisp et al. (2018), global health competencies are becoming indispensable, and professionals equipped with health education skills are increasingly sought after in development and humanitarian sectors.

The high interest in digital health also reflects current trends, as digital transformation in health systems continues to expand career options (WHO, 2021). However, the variation in graduate preparedness, as indicated by the wider standard deviation, mirrors findings by Kim et al. (2020), who observed disparities in digital health literacy among health science students, especially in low- and middle-income countries. Meanwhile, the concern regarding inadequate preparation for careers in corporate wellness echoes findings by Simovska and Mannix McNamara (2015), who reported that traditional health education curricula often lack alignment with industry-driven skills such as workplace wellness, behavioural economics, and corporate health metrics. This misalignment reinforces the call for curriculum reform, as noted by Barry et al. (2014), who advocated for competency-based approaches to better prepare graduates for diverse health promotion roles.

Furthermore, the divided perceptions on professional recognition suggest that structural and contextual factors influence career accessibility. This is consistent with

findings by Nutbeam (2019), who argued that despite growing demand for health educators, inconsistent recognition and integration into health systems remain barriers to broader career development.

These empirical insights support the current study's conclusion that curriculum reform is urgently needed to enhance practical competencies, digital fluency, and professional identity. Such reforms will enable graduates to navigate the increasingly interdisciplinary and technology-driven global health landscape more effectively.

The data presented in Table 3 indicates that integrating new curricular content is widely perceived as beneficial for enhancing career opportunities among health education graduates which agrees with the position of (Chavez et al, 2023). A majority (81.5%) agreed that such integration would bolster graduates' competitiveness in the job market. Additionally, 77.5% supported the inclusion of sociology of health, recognising its significance in addressing social and behavioural health issues. Similarly, 80% believed that knowledge of essential drugs could open up more career avenues, particularly in pharmaceutical education and community health as in agreement with (Okueso et al, 2023). However, opinions were more divided regarding the role of physiology in career expansion, with 62.5% in favour of its inclusion and 37.5% opposed, suggesting some uncertainty about its impact. Overall, these findings underscore strong support for curriculum innovation, especially in areas that enhance employability in public health as reported by as suggested by (Smith and Jones, 2021., Okueso et al, 2023), particularly in pharmacological education, and occupational health that will enhance career opportunity for health educators.

The research identified several significant challenges hindering the implementation of curriculum innovations in health educator training. A substantial majority of respondents (85%) highlighted inadequate funding as a major barrier, with an equal percentage acknowledging a shortage of trained personnel as a key impediment. Resistance to change among educators was also recognized by 85% of participants as a factor slowing the adoption of new curricula. Additionally, 80% pointed to limited access to modern teaching resources as negatively impacting training quality, while the same percentage cited insufficient industry collaboration as reducing career opportunities for graduates which is in line with the report of, Kees and Bertsche (2021) in their study who reported challenges in curriculum review and inclusion. These findings suggest that addressing issues related to funding, personnel training, resource availability, and industry partnerships is crucial to advancing curriculum innovation in health education.

Conclusion

The findings from the study indicated that graduates of health education are strategically positioned to take advantage of a growing range of career opportunities, particularly in sectors such as public health, international development, health promotion, and corporate wellness programs. Respondents strongly agreed that the rising demand for professionals in these areas is fueled by global health challenges, increased awareness of preventive health, and the integration of digital health technologies presents promising prospects for sustained career advancement.

In addition, the study highlighted the critical need to revise and expand the health education curriculum. Integrating contemporary and interdisciplinary content, particularly in areas such as the sociology of health, practical teaching, health systems, and the rational use of essential drugs is viewed as essential for producing graduates who are not only theoretically sound but also practically equipped to meet the evolving demands of the workforce. Such curriculum reforms are expected to significantly enhance the employability and relevance of health education professionals in diverse settings.The following recommendations were proposed in the study:

1. Efforts should be geared towards improving health education curriculum by introducing more practical courses in Nigeria to improve career opportunities for graduates.
2. Practical teaching and exposure to comprehensive practicum in varied public health outlets is very important in the training of health educators in the faculty of education in Nigeria.
3. Increasing training for educators, improving access to modern teaching resources, and fostering stronger industrial opportunity.

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