

An Evaluation of Health Education Standards and Curriculum Development among the Teaching Staff of the Department of Physical and Health Education in Federal College of Education (Technical) Bichi, Kano State

Saba Mohammed Ph.D¹, Atoo, Gabriel Terngu², Asiya Jamilu³

^{1&3}Department of Human Kinetics and Health Education
Federal University Dutsin-Ma Katsina State.

²Department of Physical and Health Education
School of Secondary Education (Science)

Federal College of Education (Technical) Bichi, Kano State, Nigeria
msaba@fudutsinma.ed.ng|gabrielatoo14@gmail.com| Asiyajamilukkr@gmail.com

Abstract

This study evaluated the health education standards and curriculum development among the teaching staff of the Department of Physical and Health Education in FCE (T) Bichi, Kano State. The study assessed the current health education standards, identifies areas for improvement, and informs curriculum development and policy formulation. A mixed-methods approach was employed, combining quantitative and qualitative data collection and analysis methods. The study reveals gaps in the existing health education curriculum, inadequate teacher training, and insufficient resources. The findings highlight the need for curriculum revision, teacher professional development, and resource allocation to enhance the quality of health education. The study's recommendations aim to improve health education standards, promote healthy behaviours, and ultimately enhance the well-being of students. The study's findings and recommendations have implications for policymakers, educators, and stakeholders in health education, contributing to the development of effective health education programs that meet the needs of students in FCE (T) Bichi, Kano State, and beyond. The study's results can inform policy and practice, promoting better health outcomes for students.

INTRODUCTION

Health education is a vital component of the educational system, aiming to equip students with knowledge, skills, and attitudes necessary for healthy living. The importance of health education cannot be overstated, as it plays a significant role in promoting healthy behaviours, preventing diseases, and enhancing the overall well-being of individuals. In Nigeria, health education is integrated into the school curriculum to promote health literacy and healthy practices among students.

The Federal College of Education (Technical) Bichi, Kano State, is one of the institutions responsible for training educators, including those in the Department of Physical and Health

Education. The department's role is crucial in shaping the health education landscape in Nigeria, as its graduates will go on to teach and promote health education in schools.

- Despite the importance of health education, there are concerns about the standards and effectiveness of health education programs in Nigerian schools. Several factors contribute to these concerns, including inadequate teacher training, insufficient resources, and outdated curricula. These challenges can result in health education programs that are ineffective in promoting healthy behaviours and lifestyles among students (WHO 2020).
- This study aims to evaluate the health education standards and curriculum development among the teaching staff of the Department of Physical and Health Education in FCE (T) Bichi, Kano State. The study will assess the current health education standards, identify areas for improvement, and inform curriculum development and policy formulation. By evaluating the health education standards and curriculum development, this study was to the improvement of health education programs in FCE (T) Bichi and beyond.

Global Level

Globally, health education has gained prominence as a critical component of holistic development and public health promotion. International organizations such as the World Health Organization (WHO) and UNESCO emphasize the integration of comprehensive health education into teacher training and national curricula. The WHO's Global Standards for Health Promoting Schools (2020) call for teacher competence in health literacy, participatory teaching methods, and curriculum adaptability to local health needs. In many developed countries, health education curricula are continuously updated to reflect contemporary health issues, including mental health, sexual and reproductive health, nutrition, and digital safety. Teachers are provided with professional development opportunities to remain up to date with global trends and innovations in health education. For instance, in Finland and Canada, teachers regularly undergo in-service training and are involved in the design of learner-centred curricula.

National Level (Nigeria)

At the national level, Nigeria's National Policy on Education (2013) recognizes health education as a key element in preparing teachers and students for lifelong wellness. The Nigerian Education Research and Development Council (NERDC) developed the National Curriculum for Basic and Senior Secondary Education, including health education topics such as personal hygiene, nutrition, first aid, and HIV/AIDS awareness. A 2019 study by Adebayo & Ogunlade revealed that

curriculum reform is slow, and teacher participation in curriculum design is minimal. Furthermore, the Tertiary Education Trust Fund (TETFUND) and other regulatory bodies have not effectively bridged the gap between curriculum policy and practical implementation at the college level. Hence, evaluating health education standards in FCE (T) Bichi requires an assessment of policy alignment, teacher preparedness, and resource availability, and how these relate to national goals for health literacy and teacher education.

School Level (FCE (T) Bichi, Kano State)

At the institutional level, the Department of Physical and Health Education in FCE (T) Bichi is responsible for training future health educators for Nigeria's primary and secondary schools. However, several school-level challenges affect the quality and effectiveness of health education standards and curriculum development.

a. Staff Capacity and Training

Most teaching staff have general degrees in physical and health, but education lack specialized training in curriculum design and instructional innovation. This limits their ability to critically evaluate and adapt the health education curriculum to suit emerging health issues and local needs.

b. Curriculum Relevance and Implementation

The current curriculum may not fully reflect modern health concerns such as mental health awareness, drug abuse, environmental health, and digital health threats. Moreover, there is limited evidence of staff involvement in regular curriculum review processes, leading to stagnation in course content and delivery methods.

c. Teaching Resources and Facilities

A lack of updated textbooks, digital tools, laboratories, and instructional aids hinders effective teaching. The department faces infrastructural challenges that reduce opportunities for experiential learning, which is essential in health education.

d. Student Engagement and Feedback

There is also a gap in using student performance data and feedback to refine the curriculum. Evaluating the effectiveness of health education standards should include measuring graduate competencies, feedback from student-teachers, and input from stakeholders like school principals and health officers.

e. Institutional Support and Leadership

Leadership support for professional development and research in curriculum innovation is limited. There is a need for school-level policies that encourage continuous improvement in teaching practices and provide incentives for research on curriculum development.

Health education is essential for promoting healthy behaviours and reducing health risks among students. The National Health Education Standards (NHES) provide a comprehensive framework for health education, but their effectiveness depends on implementation quality and evidence-based curricula. This paper investigates the effectiveness of current health education standards and explores strategies for developing engaging and evidence-based curricula. Health education is a critical component of promoting healthy behaviours, reducing health risks and improving overall well-being among students. Effective health education standards and curricula are essential for equipping students with the knowledge, skills and attitudes necessary to make informed decisions about their health. (Adebayo et al., 2023).

Background

The NHES emphasizes functional health knowledge, self-management and community advocacy. Effectiveness approach that incorporates skills-based learning, community engagement and technology enhance (Alabi & Ojo, 2021).

Health Education standards

1. **Comprehensive Framework:** Health education standards provide a comprehensive framework for teaching health education covering topics such as nutrition, physical activity, mental health and diseases prevention.
2. **Skills Based Learning:** Effective health education standards emphasize skill-based learning enabling students to develop critical thinking problem-solving and decision-making skills.
3. **Culturally Responsive:** Health education standards should be culturally responsive, considering the diverse needs and experiences of students from different background

Evaluating Effectiveness of Current Standards

Current health education standards face challenges including inconsistent implementation, overemphasis on knowledge and lack of rigorous outcome data. Studies have shown that effective health curricula must be research-based skill-building, culturally relevant, interactive, and developmentally appropriate and target behavioural outcomes (CDC, 2020; Gibson et al, 2020).

Challenges in Health Education

1. **Inconsistent implementation:** Health education standards are often implemented inconsistently leading to gaps in students' knowledge and skills.
2. **Overemphasis on Knowledge:** Traditional health education approaches often focus too much on transmitting knowledge rather than developing skills and promoting behavioural change.
3. **Limited Resources:** Health education programs often face limited resources including funding, insufficient teacher training and lack of access to quality educational materials (Adebayo et al., 2023).

Curriculum Development Strategies for Developing Engaging and Evidence Based Curricula

1. **Explicit Instruction:** Based on cognitive load theory explicit instruction improves literacy and numeracy (Klasse et al., 2021).
2. **Backward Design:** Aligning learning goals and assessment enhances instructional effectiveness (Smith et al., 2021)
3. **Formative Assessment:** Guiding instruction and enhancing motivation, formative assessment is critical for student's success (Hingle et al., 2020).
4. **Technology Enhanced Methods:** Video-based learning, game-based apps and VR simulations improve knowledge retention and engagement (Li et al., 2022).
5. **Evidence Based Curricula:** Develop curricula that are grounded in scientific evidence and best practice in health education
6. **Interdisciplinary Approaches:** Merge health education with other subjects such as science, social studies and language arts to foster cross-curricular understanding and application (National Academics, 2022).
7. **Social- Emotional Learning (SEL):** Integrate social emotional learning skills such as self-awareness, self-management and relationship skills into health education to promote student well-being and resilience (National Academic, 2022)
8. **Project-Based Learning:** Encourage students to apply health concepts to real world problems and community service projects, promoting experiential learning and civil engagement.

9. Culturally Responsive Pedagogy: Incorporate diverse perspective, experiences and materials to promote inclusivity and engagement (Smith et al., 2021)
10. Community Engagement: Engage with parents, community leaders and health professionals to promote health education and provide students with real-world learning experiences.

Best Practices

1. Needs Assessment: Conduct thorough needs assessments to identify students' health needs, interests and learning styles.
2. Stakeholder Engagement: Involve teachers, parents, community leaders and health professionals in curriculum development to ensure relevance and effectiveness
3. Continuous Evaluation: Regularly evaluation and revise curricula to reflect emerging health issues, new research and changing student needs
4. Teacher Support: Provide ongoing professional development and resources to support teaches in delivering high quality health education.
5. Student Cantered Approach: Design curricula that engage students through interactive, participatory methods and cater to diverse learning styles and ability (Smith et al, 2021)

Innovation Strategies

1. Gamification: Utilize game design elements and mechanics to enhance students' engagement and motivation in health education.
2. Virtual Reality (VR) and Augmented Reality (AR): Leverage VR and AR technologies to create immersive and interactive learning experiences.
3. Peer Led Education: Train students to lead health education sessions promoting peer to peer learning and social support.
4. Community Based Learning: Partner with community organizations and health professionals to provide students with real world learning experiences and mentorship (National Academic, 2022).

Statement of the Problem

The Department of Physical and Health Education at FCE (T) Bichi, Kano State plays a crucial role in shaping students health knowledge, attitude and practices. However, despite the importance of health education, there are concerns about the effectiveness of health education standards and curriculum development among teaching staff. Issues such as outdated

curriculum content, inadequate teacher training and insufficient resources may hinder the delivery of quality health education ultimately affecting student’s outcomes and overall well-being.

Objectives of the Study

1. To assess the health education standards and curriculum development in the Department of Physical and Health Education at FCE (T) Bichi, Kano State,

Research Questions

1. How do teaching staff’s knowledge, attitudes, and practices influence the delivery of health education programs in the department?
2. What are the current health education standards and curriculum influence staff in the Department of Physical and Health Education at FCE (T) Bichi, Kano State?

Hypothesis

Null Hypothesis One (H_{01}): There is no significant relationship between teaching staff’s health education standards and curriculum development influence among teaching staff of the Department of Physical and Health Education at FCE (T) Bichi, Kano State.

METHODOLOGY

This study on An Evaluation of Health Education Standards and Curriculum Development among the teaching Staff of the Department of the Department of Physical and Health Education in FCE (T) Bichi, Kano State will employ a mixed-methods approach, combining quantitative and qualitative research methods to achieve a comprehensive understanding of the research problem.

Biodata

Table 1: Gender of Respondents

Gender	Frequency	Percentage
Male	8	80%
Female	2	20%
Total	10	100%

Table 1 presents the gender distribution of respondents involved in the study. The data indicate a significant gender imbalance, with male participants comprising 80% of the sample, while female respondents account for only 20%. This disparity suggests that the perspectives captured in the

study may be more reflective of male viewpoints, potentially limiting the representativeness of female experiences or insights. The imbalance may also reflect broader gender dynamics within the department or field under investigation, possibly indicating a male-dominated professional environment. Consideration of this demographic skew is important when interpreting the findings, as it may influence the generalizability of the results across gender lines.

Table 2: Age of Respondents

Age	Frequency	Percentage
35-44	5	50%
45-54	5	50%
Total	10	100%

Table 2 illustrates the age distribution of the respondents, showing an equal representation between the two age groups. Half of the participants (50%) fall within the 35–44 age range, while the remaining 50% are between 45–54 years of age. This even distribution suggests that the insights gathered reflect a balanced mix of perspectives from mid-career professionals. Such a demographic profile may contribute to a more comprehensive understanding of the issues discussed, as individuals within these age brackets are likely to possess substantial professional experience and familiarity with the health education standards being evaluated.

Table 3: Qualification of respondents

Qualification	Frequency	Percentage
BSc/B. ED	4	40%
MSc/Med	4	40%
PhD	2	20%
Total	10	100%

Table 3 presents the academic qualifications of the respondents. The data show that 40% of participants hold a bachelor’s degree (BSc/B.Ed), while another 40% possess a master’s degree (MSc/M.Ed). The remaining 20% have attained a PhD. This distribution indicates that many respondents have at least a first or second degree, suggesting a relatively well-educated sample with the academic background necessary to provide informed perspectives on health education standards. The presence of respondents with doctoral qualifications further enhances the credibility and depth of the responses, contributing to a more nuanced understanding of the issues under investigation.

Table 4: Respondents’ years of teaching experience

Years of Teaching Experience	Frequency	Percentage
5-10 years	6	60%
11-15 years	2	20%
Over 15 years	2	20%
Total	10	100%

Table 4 provides insight into the teaching experience of the respondents. The data show that a majority, 60%, have 5–10 years of teaching experience, suggesting that most participants are in the mid-stage of their professional careers. Additionally, 20% of respondents have 11–15 years of experience, while another 20% have been teaching for over 15 years. This distribution reflects a relatively experienced respondent pool, with all participants having at least five years in the field. The predominance of mid-career educators, complemented by a proportion of more seasoned professionals, suggests that the feedback gathered is likely grounded in substantial practical experience and long-term engagement with educational practices and challenges.

Table 5: Respondents’ rank/position

Rank/position	Frequency	Percentage
LI	6	60%
LII	1	20%
Chief Lecturer	1	20%
Others	2	20%
Total	10	100%

Table 5 outlines the academic rank or position of the respondents. The data indicate that the majority, 60%, hold the position of Lecturer I (LI), suggesting a significant concentration of mid-level academic staff among the participants. Lecturer II (LII) and Chief Lecturer positions are each represented by 10% of respondents, while the remaining 20% fall under the ‘Others’ category, which may include adjunct or administrative teaching roles. This distribution implies that the perspectives captured are primarily from individuals actively engaged in teaching and academic responsibilities, particularly at the intermediate level. The presence of both junior and senior academic staff, though limited, adds some diversity to the viewpoints, contributing to a more rounded understanding of the professional context within the department.

Table 6: Awareness and Understanding of Health Education Standard

S/N	Items	SA	A	D	SD	Mean	SD	Decision
1	I am familiar with the current national health education standards.	5 (10%)	6 (60%)	2 (20%)	1 (10%)	2.70	.823	Accept
2	The standards are well-communicated to teaching staff in the department			9 (90%)	1 (10%)	2.90	.316	Accept
3	The health education standards are relevant to student needs.	4 (40%)	3 (30%)	3 (30%)		3.10	.875	Accept
4	Training and workshops on health education standards are regularly provided	1 (10%)	5 (50%)	2 (20%)	1 (10%)	2.66	.866	Accept
5	I have received adequate training on applying health education standards		8 (80%)	1 (10%)	1 (10%)	2.70	.674	Accept

The results indicate that faculty members have a moderate level of familiarity with national health education standards, with mean scores ranging from 2.66 to 3.10 across all items. While most respondents agreed that the standards are relevant to student needs and that they are familiar with them, there was notable variability in perceptions, especially concerning the communication and implementation of these standards. In particular, the low standard deviation in communication (Item 2) coupled with overwhelmingly negative responses suggests a clear gap in effective dissemination within the department. Similarly, the findings reflect uneven access to training, with some faculty reporting adequate preparation while others feel under-supported. Overall, the data suggest that while awareness of national standards exists, systemic improvements are needed in communication, training access, and consistent implementation practices to ensure a more unified and effective approach across staff.

Table 7: Curriculum Development and Implementation

S/N	Items	SA	A	D	SD	Mean	SD	Decision
1	The current curriculum aligns with national health education standards		9 (90%)	1 (10%)		2.90	.3162	Accept
2	The curriculum is regularly reviewed and updated	3 (3%)	16 (16.2%)	14 (14.1%)	45 (45.5%)	2.70	.674	Accept
3	There is adequate staff involvement in curriculum development	3 (3%)	14 (14.1%)	8 (8.1%)	52 (52.5%)	2.70	.483	Accept
4	Teaching methods used in the department promote student engagement		9 (9.1%)	8 (8.1%)	45 (45.5%)	2.40	.699	Accept
5	The curriculum integrates current health issues (e.g., mental health, HIV/AIDS, drug abuse)	1 (1%)	4 (4%)	11 (11.1%)	48 (48.5%)	2.70	.674	Accept
6	There are challenges in implementing the curriculum effectively					2.50	.707	
7	Students demonstrate improved knowledge and skills as a result of the curriculum					2.70	.483	

The findings reveal that faculty members hold moderate perceptions regarding the relevance, quality, and implementation of the health education curriculum. While there is broad agreement (mean = 2.90) that the curriculum aligns with national health education standards, concerns arise

in several critical areas. Many respondents expressed dissatisfaction with the frequency of curriculum review, staff involvement in development, and the effectiveness of teaching methods, with notable disagreement suggesting gaps in participatory processes and instructional practices. The integration of current health issues is viewed as only moderately adequate, and implementation challenges remain apparent (mean = 2.50), likely due to resource or administrative constraints. Although the curriculum is seen as having a positive impact on student learning, the overall scores (ranging from 2.40 to 2.90) reflect a need for systematic improvements, particularly in curriculum review processes, faculty engagement, and pedagogical strategies to enhance curriculum effectiveness.

Table 8: suggestions for improving the health education standards

Items	Frequency	Percentage
Funding	8	14.8%
Workshop	9	16.7%
Seminars	9	16.7%
Training of Teachers	10	18.5%
Needs For Adequate Teaching Resources	9	16.5
Up To Date Information	9	16.7
Student Motivation	9	16.7
Total	72	100%

The distribution of responses regarding strategies to improve health education standards highlights several recurring themes of importance. Among the suggestions, training of teachers was the most frequently cited, accounting for 18.5% of the total responses. This underscores a strong perception that enhancing educators' competencies is central to the advancement of health education. Closely following were workshops, seminars, student motivation, and up-to-date information, each comprising 16.7% of responses. These findings suggest that stakeholders place considerable value on continuous professional development, learner engagement, and the integration of current knowledge into instructional practices. The need for adequate teaching resources was also emphasized, making up 16.5% of the responses, indicating a concern for the availability and quality of instructional materials. Finally, funding was identified in 14.8% of responses, reflecting an underlying recognition of the financial constraints that may hinder effective implementation of educational initiatives. Overall, the data reveal a balanced yet critical call for both human and material capacity development in the pursuit of improved health education standards.

Table 9: Strategies for more effective curriculum development and implementation

Items	Frequency	Percentage
Supervision	1	7.16%
Follow up	1	7.1%
Funding	3	21.4%
Student centered	3	21%
Training	1	7.16%
Professional development	3	21.4
Total	10	100%

The analysis of suggestions for improving health education standards within the department reveals key thematic priorities among respondents. Notably, funding, student-centred approaches, and professional development emerged as the most frequently cited areas, each accounting for 21.4% of the total responses. This indicates a strong collective emphasis on the need for increased financial investment, a more learner-focused pedagogical framework, and ongoing capacity-building for educators. These areas appear to be viewed as foundational to enhancing the overall quality and effectiveness of health education. In contrast, supervision, follow-up, and training were each mentioned less frequently, representing 7.1% of the responses respectively. Although less prominent, these aspects still reflect important considerations regarding the sustainability and accountability of educational initiatives. Overall, the data suggest that improving health education standards requires a multifaceted approach that addresses both structural and instructional dimensions within the department.

Alternative Hypothesis (H1): There is a significant relationship between teaching staff's knowledge, attitudes, and practices and the effective delivery of health education programs (curriculum) in the Department of Physical and Health Education at FCE (T) Bichi, Kano State.

Table 9: Paired sample t-test result of teaching staff's knowledge, attitudes, and practices and the effective delivery of health education programs

Items	Mean	SD	p- value	decision
Knowledge vs curriculum	0.173	0.468	0.27	Rejected

The paired samples t-test result ($t = 1.17, p \approx 0.27$) indicates no statistically significant relationship between teaching staff's knowledge, attitudes, and practices and the effective delivery of the health education curriculum. Although some mean differences were observed, they were not substantial enough to suggest a meaningful impact. This suggests that, within the current sample, variations in staff engagement do not significantly influence curriculum effectiveness.

DISCUSSION

The demographic data reflect a relatively experienced and academically qualified teaching workforce, with most respondents holding bachelor's or master's degrees and having over five years of teaching experience. This aligns with findings by Adamu & Yusuf (2021), who observed that teacher qualification and experience significantly influence the delivery of effective health education. However, the evident gender imbalance, with 80% of respondents being male, may suggest institutional gender dynamics that could impact curriculum inclusivity and the diversity of perspectives shared in class (Aminu & Olorunfemi, 2022). Gender representation in teaching staff is important, particularly in health education where student engagement on sensitive topics can vary by gender.

The study shows that while most respondents reported being familiar with national health education standards, significant challenges exist in standard communication and regular professional training. This echoes Nwachukwu and Eze (2020), who emphasize that for educational standards to be effective, they must be well communicated and continuously reinforced through training. Inadequate exposure to workshops and updates on standards was evident in this study, leading to fragmented implementation. As Okorie et al. (2021) argue, awareness alone is insufficient unless coupled with institutional structures that promote capacity building, periodic refresher courses, and monitoring. Data from the study also reveal discrepancies in curriculum development and implementation. Although respondents generally agree that the curriculum aligns with national standards (mean = 2.90), they express concern over limited staff involvement in development and infrequent curriculum reviews. This supports the position of Adebayo & Akinlade (2023), who contend that participatory curriculum development enhances the relevance and ownership of academic content among teaching staff. Additionally, dissatisfaction with current teaching methods, especially regarding student engagement, highlights a pedagogical gap that requires urgent attention. As noted by Ugwoke et al. (2022), engaging students actively through participatory and problem-based learning approaches enhances comprehension and long-term retention in health education.

The integration of contemporary health issues, such as mental health and drug abuse, was also rated moderately, reflecting a potential disconnect between curriculum content and real-world

health challenges. According to Ogunyemi & Bello (2023), failure to incorporate contemporary issues in health education weakens the curriculum's relevance and impairs students' ability to apply knowledge practically. The respondents' suggestions for improvement—highlighting the need for increased training (18.5%), workshops, access to up-to-date information, and adequate teaching resources—align with recommendations from UNESCO (2021) on teacher capacity development for sustainable health education. Moreover, the emphasis on funding and student-centred approaches echo the work of Eze & Ibrahim (2022), who identify resource allocation and learner-centred pedagogy as critical pillars for effective curriculum implementation in tertiary institutions.

Professional development also emerged as a major concern, which is supported by Ibrahim & Uba (2024), who argue that continuous training empowers educators to adapt to evolving standards and incorporate innovative teaching methods. Importantly, the call for student-centred learning reflects a shift from traditional lecture-based approaches to more interactive, inclusive strategies, as promoted by WHO (2020) in global health education reforms. Despite the reported awareness of standards, the paired sample t-test result ($p = 0.27$) showed no statistically significant relationship between staff knowledge and effective curriculum delivery. This finding is consistent with Alabi & Ojo (2021), who noted that institutional and infrastructural barriers often prevent the translation of theoretical knowledge into practice. It highlights a gap between individual competency and systemic functionality. The lack of significance suggests that while lecturers may possess adequate knowledge and positive attitudes, implementation is constrained by factors such as poor administrative support, lack of resources, and insufficient follow-up mechanisms.

As Taiwo et al. (2020) explain, effective health education requires more than awareness—it demands consistent institutional alignment, policy reinforcement, and infrastructural investment to translate knowledge into impactful teaching outcomes

CONCLUSION

A robust health education framework must combine standardized expectations with engaging evidence-based pedagogies. Effectively moving from knowledge to skill to behavioural requires standards driven design, teacher preparation, and learner centred strategies, ongoing assessment and engagement via technology.

RECOMMENDATIONS

1. Provide targeted professional development on explicit instruction and backward design.
2. Use evaluation tools like HECAT and responsive evaluation to monitor curriculum alignment and outcomes.
3. Integrate interactive technologies in a mixed instruction approach.
4. Utilize implementation planning frameworks to support stakeholder engagement and sustainability.
5. Conduct rigorous implementation and impact research.

REFERENCES

- Adamu, L. A., & Yusuf, M. K. (2021). Teacher effectiveness and delivery of health education in *Nigerian colleges*. *African Journal of Health and Education*, 11(2), 45–58.
- Adebayo, R. S., & Akinlade, J. T. (2023). Participatory curriculum development in Nigerian tertiary *Institutions: Challenges and prospects*. *International Journal of Curriculum Studies*, 14(1), 91–104.
- Alabi, S. O., & Ojo, A. B. (2021). Barriers to curriculum implementation in Nigerian colleges of *Education*. *Journal of Educational Policy and Reform*, 8(3), 37–49. HYPERLINK "<https://doi.org/10.4314/njp.v41i4.15>"
- Centers for Disease Control and Prevention. (2020)
- Eze, E. J., & Ibrahim, U. A. (2022). Funding and pedagogy in health education: The missing link in *Nigerian higher education*. *Journal of Contemporary Education Research*, 7(4), 28–41.
- Gibson, P., & Harper, K. (2020). *Health Education in Schools: A Systematic Review*.
- Hingle, M. & James, P.K. (2020). *Community Based Health Education: A Review of the Literature*.
- Klasse, J. & MacDone, J.T. (2021). *Using Technology to enhanced Health Education: A Review of the Literature*
- Li, Y., Chen, M.T. & Tai, H.J. (2022). *Effectiveness of Skills-Based Health Education Programs: A Meta-Analysis*.
- Ibrahim, M., & Uba, I. (2024). Professional development and health education delivery in teacher *Training institutions*. *Journal of Teacher Education in Africa*, 9(1), 14–25.
- National Academic of Sciences, Engineering and Medicine. (2022). *Promoting health well-being in School Settings*. National Academic Press
- Nwachukwu, C. N., & Eze, C. A. (2020). Reinforcing national standards in tertiary health *Education: Strategies for effective communication and training*. *Nigerian Journal of Educational Leadership*, 6(2), 78–89.
- Ogunyemi, T. O., & Bello, K. M. (2023). Relevance of curriculum content in contemporary health *Issues: A study of Nigerian health education departments*. *Health Promotion and Education Journal*, 12(3), 101–116.
- Okorie, C. J., Ekene, F. A., & Obi, L. N. (2021). Bridging the knowledge-practice gap in curriculum *Implementation*. *West African Journal of Teacher Education*, 13(2), 65–76.

- Smith, J. & Donaldson, D.K. (2022). Community-Based Learning in Health Education: A Systematic Review.
- Taiwo, A. R., Sani, L. U., & Okonkwo, J. C. (2020). Structural challenges in Nigerian higher Education: *Implications for curriculum delivery*. African Research Review, 14(5), 84–97.
- Ugwoke, S. C., Emeka, V. I., & Olumide, B. R. (2022). Interactive teaching strategies and health Education in Nigerian colleges. Journal of Instructional Innovations, 10(2), 22–39.
- UNESCO. (2021). *Teacher training for health education in Africa: Guidelines and practices*. Paris: UNESCO Publishing.
- World Health Organization (WHO). (2020). *Global Standards for Health Promoting Schools: Implementation Framework*. Geneva: WHO