

Perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula: perspectives of educational managers and public health professionals in Anambra State, Nigeria

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ARTICLE INFO	ABSTRACT
Keywords: <i>Indigenous health knowledge, curriculum integration, culturally responsive pedagogy, health education, secondary school curricula.</i> Received: 22, May, 2026 Revised: 29, June 2026 Accepted: 04, July 2026 ©2026 Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International 	<i>The integration of indigenous knowledge into formal education is increasingly advocated as a means of promoting culturally responsive pedagogy and enhancing educational relevance. However, indigenous health knowledge remains largely excluded from secondary school curricula in Nigeria despite its potential contributions to health education and community well-being. This study examined the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria. Guided by the principles of culturally responsive pedagogy, the study adopted a descriptive survey research design. The study involved 1,352 respondents, comprising 274 public secondary school principals and 1,078 public health professionals, from which a proportionately stratified sample of 159 principals and 285 public health professionals was selected. Data were collected using a researcher-developed questionnaire that was validated by experts and demonstrated satisfactory reliability ($\alpha = 0.83$). Mean, standard deviation, and independent samples t-test were employed for data analysis. The findings revealed that respondents perceived the integration of indigenous health knowledge as beneficial for preserving indigenous health practices and cultural heritage, promoting culturally responsive education, enhancing students' understanding of health promotion and disease prevention, and complementing scientific health knowledge. However, inadequate policy support, insufficient teacher preparation, lack of instructional materials, and the dominance of Western-oriented curricula were identified as major barriers to implementation. The study further found no significant differences between the perceptions of educational managers and public health professionals regarding the benefits and challenges of such integration. The findings suggested that integrating indigenous health knowledge into secondary school curricula could promote culturally relevant and sustainable health education, but deliberate curriculum reforms, school-community partnerships, and teacher capacity-building initiatives are required for effective implementation.</i>

Introduction

Globally, there has been an increasing recognition of the importance of indigenous knowledge systems (IKS) in promoting sustainable development, culturally responsive education, and improved health outcomes. Indigenous knowledge refers to the cumulative body of knowledge, practices, beliefs, and skills developed by local communities through generations of interaction with their

environment (Ikegbusi et al., 2026b). International organizations, including UNESCO (2021) and WHO (2023), have advocated for the preservation and integration of indigenous knowledge into formal education and health systems because of its potential to address local challenges and promote community well-being. Recent studies have demonstrated that integrating indigenous knowledge into formal education contributes to inclusive and equitable learning, promotes cultural identity, and enhances learners' engagement by connecting school experiences with local realities (Matindike & Ramdhany, 2024). Similarly, Dei et al. (2025) and Ikegbusi (2025) observed that indigenous knowledge provides practical solutions to contemporary developmental innovative challenges and should be systematically integrated into educational systems to foster sustainable development.

In the field of public health, indigenous health knowledge encompasses traditional understandings and practices relating to disease prevention, nutrition, maternal and child health, environmental sanitation, mental health, and herbal medicine. Studies conducted in countries such as Australia, Canada and New Zealand indicate that incorporating indigenous health knowledge into educational programmes improves cultural competence, reduces health inequities, and strengthens the responsiveness of health systems to local populations (Pitama et al. 2018). In a related study, Coombe et al. (2017) affirmed that the integration of indigenous public health curricula equips learners with culturally relevant competencies necessary for addressing health disparities and improving community health outcomes.

The global movement towards curriculum decolonization has further intensified debates regarding whose knowledge is legitimized within educational systems. The dominance of Eurocentric curricula has been criticized for marginalizing indigenous ways of knowing and learning, thereby rendering education less responsive to the socio-cultural realities of local communities (Matindike & Ramdhany, 2024). Consequently, scholars have increasingly advocated for the incorporation of indigenous knowledge into formal curricula as a strategy for promoting educational relevance, social justice, and sustainability (Dei et al., 2025).

From an African perspective, the integration of indigenous knowledge into formal education has become a major policy concern because colonial educational systems largely excluded African epistemologies and privileged Western knowledge traditions. African indigenous knowledge systems encompass diverse understandings of health, nutrition, environmental management, conflict resolution, and community living that have sustained societies for centuries. Mbah et al. (2021) argued that indigenous knowledge systems constitute an invaluable resource for addressing developmental challenges and enhancing community resilience. Likewise, Mkosi et al. (2023) maintained that the incorporation of African indigenous knowledge into teaching and learning promotes cultural relevance, social cohesion and learners' appreciation of their heritage. Similarly, Aina (2025) emphasized that decolonizing African education requires the integration of indigenous knowledge into school curricula to make education more responsive to the realities and experiences of African learners. According to the author, the continued dependence on Western-oriented curricula has contributed to the erosion of local knowledge systems and limited the relevance of education to African societies.

In Nigeria, growing calls for the decolonization of education have intensified the need for culturally responsive curricula that reflect the socio-cultural realities and indigenous experiences of learners. Despite the country's rich repository of indigenous health practices relating to herbal medicine, maternal and child care, nutrition, disease prevention, and environmental sanitation, these knowledge systems remain largely excluded from secondary school curricula (Aina, 2025; Ikegbusi et al., 2026b). The Nigerian educational system continues to privilege Western scientific knowledge while paying limited attention to locally generated knowledge that could contribute significantly to addressing persistent public health challenges and promoting community well-being. The integration of indigenous health knowledge into school curricula has the potential to enhance students' understanding of local health practices, promote positive health-seeking behaviours, preserve cultural

heritage, and strengthen community participation in health promotion initiatives. Recent studies in Nigeria have similarly emphasized the importance of curriculum innovation, the integration of local knowledge systems, and context-responsive educational practices in improving learning outcomes and fostering sustainable societal development (Ikegbusi & Iheanacho, 2016; Ikegbusi et al., 2026a).

Furthermore, recent empirical evidence suggests that the integration of indigenous and scientific knowledge systems can provide innovative and context-specific solutions to contemporary developmental and health challenges (Ijatuyi et al. 2025). According to these authors, indigenous knowledge should not be viewed as competing with scientific knowledge but rather as complementary knowledge that can enrich educational content and improve societal outcomes. The successful integration of indigenous health knowledge into school curricula largely depends on the perceptions and support of key stakeholders, particularly educational managers and public health professionals. Educational managers play crucial roles in curriculum implementation, instructional supervision and educational policy execution (UNESCO, 2021), while public health professionals possess the expertise required to identify culturally relevant health practices and translate them into educational content (World Health Organization [WHO], 2023). Their perceptions regarding the benefits and challenges of integrating indigenous health knowledge are therefore critical to the success of curriculum reform initiatives (Fullan, 2016).

In Anambra State, indigenous health knowledge remains deeply embedded in community practices and cultural traditions. The state possesses rich indigenous knowledge relating to medicinal plants, nutrition, maternal care, sanitation practices and community-based disease prevention strategies (Ikegbusi et al., 2026b). However, these valuable health resources are increasingly threatened by urbanization, globalization and the gradual erosion of traditional practices among younger generations (Mbah et al., 2021). Secondary schools in the state continue to operate largely within curricula that prioritize Western-oriented knowledge systems and provide limited opportunities for students to engage with indigenous health practices (Aina, 2025;). Consequently, there is growing concern that the failure to integrate indigenous health knowledge into school curricula may contribute to the gradual loss of cultural heritage and limit the development of culturally responsive health education programmes (Matindike & Ramdhany, 2024).

Although several studies have examined indigenous knowledge integration in science education, environmental education and higher education contexts (Mbh et al., 2021; Mkosi et al., 2023; Aina, 2025), empirical studies specifically focusing on the integration of indigenous health knowledge into secondary school curricula remain scarce, particularly in Nigeria and Anambra State. Existing studies have largely been conceptual, systematic reviews or conducted outside the Nigerian context (Pitama et al., 2018). Furthermore, to the best of the researchers' knowledge, no empirical study has simultaneously examined the perspectives of educational managers and public health professionals regarding the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula. This topical, contextual, and population gap necessitated the present study on the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria.

Statement of the Problem

The global movement towards decolonizing education has renewed calls for the integration of indigenous knowledge systems into formal school curricula. Indigenous health knowledge, which includes local practices relating to disease prevention, nutrition, maternal and child health, and environmental sanitation, has the potential to enrich health education and make learning more relevant to the socio-cultural realities of learners. Ideally, secondary school curricula in Nigeria should incorporate such locally generated knowledge to promote culturally responsive education and improve public health literacy among students. However, the secondary school curriculum in Nigeria

remains largely Western-oriented, with limited integration of indigenous health knowledge despite the abundance of such knowledge in local communities. In Anambra State, many indigenous health practices that have sustained communities for generations are gradually being lost due to modernization, globalization and their exclusion from formal educational programmes. Consequently, students are increasingly disconnected from valuable local health knowledge that could complement scientific knowledge and contribute to health promotion within their communities. If this situation persists, indigenous health practices may continue to decline, resulting in the erosion of cultural heritage and the loss of potentially valuable approaches to community health promotion. Furthermore, the continued exclusion of indigenous health knowledge from school curricula may undermine efforts to decolonize education and limit the development of culturally responsive health education programmes. Although studies have examined indigenous knowledge integration and curriculum decolonization, empirical evidence on the integration of indigenous health knowledge into secondary school curricula, particularly from the perspectives of educational managers and public health professionals, remains scarce in Nigeria and virtually non-existent in Anambra State. This gap in knowledge necessitated the present study, which sought to examine the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria.

Purpose of the Study

The main purpose of this study was to examine the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria. Specifically, the study sought to:

1. Determine the perceived benefits of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State.
2. Determine the perceived challenges of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State.

Research Questions

1. What are the perceived benefits of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State?
2. What are the perceived challenges of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State?

Hypotheses

Hypothesis 1: There is no significant difference between the mean ratings of educational managers and public health professionals on the perceived benefits of integrating indigenous health knowledge into secondary school curricula in Anambra State.

Hypothesis 2: There is no significant difference between the mean ratings of educational managers and public health professionals on the perceived challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State.

Literature Review

The integration of indigenous knowledge into formal education has gained increasing scholarly attention because of its potential to promote culturally responsive pedagogy, educational

relevance and sustainable development. Indigenous knowledge refers to the cumulative body of knowledge, beliefs, practices and skills developed by local communities through long-term interaction with their social and natural environments and transmitted from one generation to another (Dei et al., 2025). Within the health context, indigenous health knowledge comprises local understandings, beliefs and practices relating to disease prevention, herbal medicine, maternal and child care, nutrition, sanitation and community health promotion that are embedded in the cultural traditions of a people (Pitama et al., 2018).

Curriculum integration refers to the systematic incorporation of knowledge, skills, values and experiences from diverse disciplines or cultural contexts into formal educational programmes to enhance the relevance and meaningfulness of learning. In the context of this study, it entails the inclusion of indigenous health knowledge within secondary school curricula to enable learners to appreciate local health practices and their relevance to contemporary health challenges (Drake & Reid, 2020). The perceived benefits of integrating indigenous health knowledge into school curricula include improved cultural identity, enhanced contextual learning, increased educational relevance, promotion of culturally responsive health education and the preservation of indigenous heritage (Matindike & Ramdhany, 2024). Conversely, perceived challenges refer to stakeholders' views regarding factors that may hinder such integration, including inadequate policy support, insufficient instructional resources, limited teacher preparedness, institutional resistance and the continued dominance of Western epistemologies in formal education (Pitama et al., 2018).

Recent studies generally agree that indigenous knowledge systems enrich learning by connecting classroom experiences to learners' socio-cultural realities and strengthening cultural identity (Dei et al., 2025). Consequently, the integration of indigenous health knowledge into secondary school curricula has been increasingly advocated as a means of promoting culturally responsive education and sustainable development. The present study is informed by the Culturally Responsive Pedagogy Theory proposed by Ladson-Billings (1995). The theory posits that effective teaching and curriculum should reflect learners' cultural experiences, values, and indigenous knowledge systems. It advocates the inclusion of local knowledge in formal education to make learning more meaningful, relevant, and socially responsive. In the context of this study, the theory provides a useful lens for understanding the integration of indigenous health knowledge into secondary school curricula as a means of promoting culturally responsive health education, preserving indigenous heritage, and enhancing learners' understanding of local health practices.

Empirical studies have increasingly examined the integration of indigenous knowledge systems into formal education and their implications for educational relevance and sustainable development. Matindike and Ramdhany (2024), in a systematic review of indigenous knowledge perspectives in integrated STEM education, reported that the incorporation of indigenous knowledge enhanced learners' engagement, contextual understanding, and problem-solving abilities. However, the authors identified inadequate curriculum frameworks, limited instructional materials, and insufficient teacher preparedness as major challenges to implementation. Similarly, Dei et al. (2025) found that indigenous knowledge contributes significantly to sustainable development and educational relevance by providing context-specific solutions to local challenges. The study, however, noted that institutional resistance and the continued dominance of Western epistemologies impede its effective integration into formal education. Likewise, Ijatuyi et al. (2025) reported that integrating indigenous and scientific knowledge systems provides innovative and context-specific solutions to contemporary challenges in healthcare, agriculture and education. The authors argued that indigenous knowledge should complement rather than compete with scientific knowledge.

Within the health sector, scholars have increasingly recognized the importance of indigenous health knowledge in promoting culturally responsive healthcare and reducing health disparities. Pitama et al. (2018) reported that indigenous health curricula improved learners' cultural competence, understanding of health inequities, and appreciation of indigenous perspectives on health and well-

being. Similarly, Coombe et al. (2017) found that integrating indigenous public health curricula enhanced culturally responsive health practices and strengthened learners' understanding of indigenous health systems. However, both studies identified inadequate institutional support, insufficient resources and resistance to curriculum change as significant challenges. Although these studies demonstrated the benefits of indigenous health curricula, they were conducted within higher education and health professional training contexts and did not examine indigenous health knowledge integration at the secondary school level.

Studies in Africa have also highlighted the relevance of indigenous knowledge systems in addressing local developmental challenges and promoting sustainable education. Mbah et al. (2021) reported that indigenous knowledge systems provide context-specific solutions to environmental and developmental challenges and should be integrated into educational programmes to strengthen community resilience and sustainability. Likewise, Aina (2025) argued that integrating African indigenous knowledge into school curricula is essential for decolonizing education and making learning more responsive to African realities and experiences. Similarly, Mkosi et al. (2023) found that the incorporation of African indigenous knowledge into teaching and learning promotes social cohesion, cultural identity, and educational relevance. These studies generally agree on the importance of integrating indigenous knowledge into formal education but do not specifically address indigenous health knowledge or stakeholders' perceptions of its integration into secondary school curricula.

Within the Nigerian context, empirical studies on indigenous knowledge integration remain limited. More recently, Ikegbusi et al. (2026b) examined the integration of Local Knowledge Systems into public secondary school curricula in Anambra State, Nigeria. The study found that students demonstrated moderate to high awareness of local knowledge systems, actively participated in culturally grounded learning experiences, and reported enhanced cultural identity and appreciation of indigenous heritage. Furthermore, students perceived that the integration of local knowledge systems improved the relevance of learning and motivated active participation in classroom activities. The study recommended the systematic integration of local knowledge systems into teaching and learning to promote culturally responsive pedagogy and strengthen learners' appreciation of indigenous heritage. However, the study focused on students' awareness and engagement with local knowledge systems generally and did not specifically investigate indigenous health knowledge or the perspectives of educational managers and public health professionals. The reviewed literature demonstrated considerable agreement that indigenous knowledge integration promotes educational relevance, cultural identity and sustainable development. There is also consensus that inadequate policy support, insufficient resources, and the dominance of Western epistemologies remain major obstacles to implementation. However, disagreements persist regarding the scope, mode, and level of integration of indigenous knowledge into formal curricula.

Despite the growing body of literature on indigenous knowledge integration and curriculum decolonization, few studies have examined the integration of indigenous health knowledge into secondary school curricula. While previous studies have demonstrated the educational and cultural benefits of indigenous knowledge integration (Matindike & Ramdhany, 2024; Dei et al., 2025) and highlighted the relevance of indigenous health curricula (Pitama et al., 2018), studies have not investigated the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals. Moreover, empirical evidence on this issue remains scarce in Nigeria and virtually non-existent in Anambra State. The present study therefore addressed this empirical and contextual gap by examining the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria.

Methodology

Research Design

This study adopted a descriptive survey research design to examine the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula from the perspectives of educational managers and public health professionals in Anambra State, Nigeria. A descriptive survey research design is considered appropriate because it enables the researcher to collect quantitative data on respondents' opinions, perceptions, and experiences regarding a phenomenon as it exists naturally without manipulating any of the study variables (Ikegbusi, 2022). The design is particularly suitable for studies that seek to describe and compare the views of different groups of respondents on issues of educational and public health significance. In the present study, the design facilitated the collection of data on the perceived benefits and challenges associated with integrating indigenous health knowledge into secondary school curricula and provided a basis for comparing the perceptions of educational managers and public health professionals in Anambra State, Nigeria.

Population and Sample

The target population comprised all public secondary school principals and public health professionals in Anambra State, Nigeria. The focus was on these categories of respondents because principals, as educational managers, are directly responsible for curriculum implementation, instructional supervision and educational policy execution in secondary schools, while public health professionals possess expertise in health promotion, indigenous health practices, and community health education, making them key stakeholders in matters relating to the integration of indigenous health knowledge into school curricula. The study covered respondents across the six education zones of Anambra State, namely Aguata, Awka, Nnewi, Ogidi, Onitsha, and Otuocha.

There are 274 public secondary school principals in the state and 1,078 public health professionals working in government-owned health facilities, giving a total population of 1,352 respondents. Using proportionate stratified random sampling, respondents were selected from the six education zones to ensure adequate representation of the study population. Based on the Krejcie and Morgan (1970) sample size determination table, a sample of 444 respondents, comprising 159 principals and 285 public health professionals, was drawn for the study. This sample size according to Obi et al. (2022: 92) was considered adequate for obtaining reliable information on the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State, Nigeria.

Instrumentation

The primary instrument for data collection in this study was a structured questionnaire titled Perceived Benefits and Challenges of Integrating Indigenous Health Knowledge into Secondary School Curricula Questionnaire (PBCHKSQ). The questionnaire was developed based on an extensive review of literature on indigenous knowledge systems, curriculum decolonization, culturally responsive pedagogy, and indigenous health education, with some items adapted from previous studies on indigenous knowledge integration and stakeholders' perceptions of curriculum reform (Mbah et al., 2021; Matindike & Ramdhany, 2024; Dei et al., 2025; Ikegbusi et al., 2026c).

The instrument was designed to measure two major constructs: the perceived benefits of integrating indigenous health knowledge into secondary school curricula and the perceived challenges associated with such integration. The perceived benefits section contained items relating to the promotion of culturally responsive education, preservation of indigenous health practices, enhancement of students' health literacy, promotion of community participation in health education, and improvement of the relevance of school learning to local realities. The perceived challenges section comprised items relating to inadequate policy support, insufficient teacher preparation,

limited instructional resources, possible resistance from stakeholders, lack of curriculum guidelines and the dominance of Western-oriented curricula.

Each item on the questionnaire was rated on a 4-point Likert scale with the following response options: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. The adoption of the 4-point scale was intended to eliminate neutral responses and encourage respondents to express definite opinions regarding the integration of indigenous health knowledge into secondary school curricula. The questionnaire items were clearly worded and contextualized to reflect indigenous health practices commonly found in Anambra State, including traditional approaches to nutrition, disease prevention, environmental sanitation, maternal and child health and the use of medicinal plants, thereby ensuring clarity and contextual relevance for educational managers and public health professionals.

Validity and Reliability

The instrument was subjected to face and content validation by three experts comprising one specialist in Educational Management, one specialist in Public Health Education, and one expert in Measurement and Evaluation, all from Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The experts examined the instrument for clarity, relevance, appropriateness of the items, and adequacy of coverage of the variables under investigation. Their comments and suggestions guided the modification and refinement of the questionnaire before its final administration.

To ensure internal consistency, the instrument was trial tested on 30 respondents comprising 15 public secondary school principals and 15 public health professionals in Enugu State, Nigeria, which was outside the study area but shared similar characteristics with the study population. The data obtained from the pilot study were analyzed using Cronbach's alpha statistics. The reliability coefficients obtained for the perceived benefits and perceived challenges scales were 0.84 and 0.81, respectively, while the overall reliability coefficient for the instrument was 0.83, indicating that the instrument possessed a high degree of internal consistency and was therefore considered reliable for the study.

Data Collection Procedure

Before data collection, approval was obtained from the Post Primary Schools Service Commission, Anambra State and the Anambra State Ministry of Health. Permission was also secured from the principals of the selected public secondary schools and the heads of the health facilities involved in the study. Informed consent was obtained from all the respondents after the purpose of the study had been explained to them.

Three research assistants with backgrounds in Educational Management and Public Health were trained on the objectives of the study and the procedures for administering the questionnaire ethically and uniformly. They were also instructed on how to clarify questionnaire items to respondents without influencing their responses. The researchers and the research assistants administered the questionnaires directly to the respondents and collected them immediately after completion to ensure a high retrieval rate. At the end of the exercise, all the questionnaires distributed were duly completed and returned, resulting in a 100% return rate.

Method of Data Analysis

The data collected were coded and analyzed using the Statistical Package for the Social Sciences (SPSS), Version 28. Descriptive statistics, specifically the mean and standard deviation (SD), were used to answer the research questions on the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula. A criterion mean of 2.50 was established as the decision benchmark. Mean scores of 2.50 and above were interpreted as agreement with the item statement, indicating that the respondents perceived the issue as a benefit or

a challenge, whereas mean scores below 2.50 were interpreted as disagreement with the item statement.

The null hypotheses were tested using the independent samples t-test at the 0.05 level of significance. The choice of the t-test was informed by the fact that the study sought to determine whether significant differences existed between the mean ratings of two independent groups of respondents, namely educational managers and public health professionals. For the hypotheses, a p-value less than or equal to 0.05 led to the rejection of the null hypothesis, while a p-value greater than 0.05 resulted in the acceptance of the null hypothesis. This analytical procedure provided a clear basis for examining the perceptions of the two groups regarding the benefits and challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State, Nigeria.

Results

Research Question 1: What are the perceived benefits of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State?

Table 1: Mean ratings of educational managers and public health professionals on the perceived benefits of integrating indigenous health knowledge into secondary school curricula in Anambra State

S/N	Items	M	SD	Decision
1	Integrating indigenous health knowledge into secondary school curricula will promote the preservation of indigenous health practices and cultural heritage.	3.52	0.68	Agree
2	The integration of indigenous health knowledge into secondary school curricula will make health education more relevant to students' local realities and lived experiences.	3.47	0.72	Agree
3	Integrating indigenous health knowledge into secondary school curricula will enhance students' understanding of health promotion and disease prevention practices.	3.50	0.70	Agree
4	The inclusion of indigenous health knowledge in secondary school curricula will enhance students' appreciation of local medicinal plants and traditional health practices.	3.41	0.75	Agree
5	Integrating indigenous health knowledge into secondary school curricula will promote culturally responsive teaching and learning.	3.48	0.69	Agree
6	The integration of indigenous health knowledge into secondary school curricula will strengthen community participation in health education programmes.	3.39	0.74	Agree

7	Integrating indigenous health knowledge into secondary school curricula will complement scientific health knowledge and promote a more holistic approach to health education.	3.53	0.67	Agree
Grand mean		3.47		Agree

The grand mean of 3.47 indicated that educational managers and public health professionals generally perceived the integration of indigenous health knowledge into secondary school curricula as highly beneficial. The respondents agreed that such integration would complement scientific health knowledge and promote holistic health education ($M = 3.53$, $SD = 0.67$), preserve indigenous health practices and cultural heritage ($M = 3.52$, $SD = 0.68$) and improve students' understanding of health promotion and disease prevention ($M = 3.50$, $SD = 0.70$). They also perceived that integrating indigenous health knowledge would promote culturally responsive teaching and learning ($M = 3.48$, $SD = 0.69$) and make health education more relevant to students' local realities and experiences ($M = 3.47$, $SD = 0.72$). Although all the items were rated positively, relatively lower mean ratings were obtained for strengthening community participation in health education programmes ($M = 3.39$, $SD = 0.74$) and enhancing students' appreciation of local medicinal plants and traditional health practices ($M = 3.41$, $SD = 0.75$). The findings suggested that respondents strongly support the integration of indigenous health knowledge into secondary school curricula because of its perceived educational, cultural and public health benefits.

Research Question 2: What are the perceived challenges of integrating indigenous health knowledge into secondary school curricula among educational managers and public health professionals in Anambra State?

Table 2: Mean ratings of educational managers and public health professionals on the perceived challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State

S/N	Items	M	SD	Decision
1	Inadequate curriculum guidelines may hinder the integration of indigenous health knowledge into secondary school curricula.	3.45	0.71	Agree
2	Insufficient teacher preparation in indigenous health knowledge may pose a challenge to its integration into the curriculum.	3.51	0.68	Agree
3	Lack of instructional materials on indigenous health knowledge may hinder its effective implementation.	3.49	0.70	Agree
4	Negative perceptions of indigenous health practices may limit their integration into the school curriculum.	3.43	0.73	Agree
5	The dominance of Western-oriented curricula may constitute a challenge to integrating indigenous health knowledge into secondary school curricula.	3.54	0.67	Agree

6	Inadequate government policy support may hinder the integration of indigenous health knowledge into school curricula.	3.47	0.72	Agree
7	Limited collaboration between educational institutions and indigenous health practitioners may impede the integration process.	3.40	0.75	Agree
Grand Mean		3.47		Agree

The grand mean of 3.47 indicated that educational managers and public health professionals generally perceived several challenges to the integration of indigenous health knowledge into secondary school curricula. The respondents identified the dominance of Western-oriented curricula ($M = 3.54$, $SD = 0.67$), insufficient teacher preparation ($M = 3.51$, $SD = 0.68$), and lack of instructional materials ($M = 3.49$, $SD = 0.70$) as the major challenges. They also agreed that inadequate policy support, negative perceptions of indigenous health practices and limited collaboration with indigenous health practitioners could hinder effective implementation. The findings suggested that although respondents recognize the benefits of integrating indigenous health knowledge into secondary school curricula, significant institutional and pedagogical barriers may impede its successful implementation in Anambra State, Nigeria.

Hypotheses

Hypothesis 1: There is no significant difference between the mean ratings of educational managers and public health professionals on the perceived benefits of integrating indigenous health knowledge into secondary school curricula in Anambra State.

Table 3: Independent Samples t-test on the Mean Ratings of Educational Managers and Public Health Professionals on the Perceived Benefits of Integrating Indigenous Health Knowledge into Secondary School Curricula

Respondents	N	$\bar{X}$	SD	df	t-cal	Sig. (2-tailed)	Decision
Educational Managers	159	3.49	0.48				Not Significant
Public Health Professionals	285	3.45	0.51	442	0.81	0.418	

Decision Rule: Reject the null hypothesis if the p-value is less than or equal to 0.05; otherwise, accept the null hypothesis.

Table 3 showed that the educational managers had a mean rating of 3.49 ($SD = 0.48$), while the public health professionals had a mean rating of 3.45 ($SD = 0.51$) on the perceived benefits of integrating indigenous health knowledge into secondary school curricula. The independent samples t-test yielded a calculated t-value of 0.81 with a corresponding p-value of 0.418, which is greater than the 0.05 level of significance. Therefore, the null hypothesis was accepted. The finding indicated that there is no statistically significant difference between the perceptions of educational managers and public health professionals regarding the benefits of integrating indigenous health knowledge into secondary school curricula in Anambra State. This suggested that both groups similarly recognized the educational, cultural and public health benefits associated with such integration.

Hypothesis 2: There is no significant difference between the mean ratings of educational managers and public health professionals on the perceived challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State.

Table 4: Independent Samples t-test on the Mean Ratings of Educational Managers and Public Health Professionals on the Perceived Challenges of Integrating Indigenous Health Knowledge into Secondary School Curricula

Respondents	N	$\bar{X}$	SD	df	t-cal	Sig. (2-tailed)	Decision
Educational Managers	159	3.50	0.50				Not Significant
Public Health Professionals	285	3.44	0.53	442	1.18	0.239	

Decision Rule: Reject the null hypothesis if the p-value is less than or equal to 0.05; otherwise, accept the null hypothesis.

Table 4 revealed that educational managers had a mean rating of 3.50 (SD = 0.50), while public health professionals had a mean rating of 3.44 (SD = 0.53) on the perceived challenges of integrating indigenous health knowledge into secondary school curricula. The independent samples t-test produced a calculated t-value of 1.18 and a corresponding p-value of 0.239, which is greater than the 0.05 level of significance. Therefore, the null hypothesis was accepted. The finding indicated that there is no statistically significant difference between the mean ratings of educational managers and public health professionals on the perceived challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State. This implied that both groups share similar views regarding the institutional, curricular and implementation-related challenges that may hinder the effective integration of indigenous health knowledge into secondary school education.

Discussion of Findings

Perceived Benefits of Integrating Indigenous Health Knowledge into Secondary School Curricula

The findings of this study revealed that educational managers and public health professionals perceived the integration of indigenous health knowledge into secondary school curricula as highly beneficial. The respondents agreed that such integration would promote the preservation of indigenous health practices and cultural heritage, enhance students' understanding of health promotion and disease prevention, and make health education more relevant to learners' local realities. The findings support those of Pitama et al. (2018), who reported that indigenous health curricula enhance learners' cultural competence and understanding of indigenous perspectives on health and well-being. Similarly, Matindike and Ramdhany (2024) found that incorporating indigenous knowledge into educational programmes improves contextual learning and increases the relevance of education to learners' socio-cultural environments. However, the findings are inconsistent with those of Coombe et al. (2017), who identified substantial institutional resistance and limited support for the integration of indigenous health content into educational programmes, suggesting that the perceived benefits of such integration may vary across educational contexts.

The study further revealed no significant difference between the mean ratings of educational managers and public health professionals on the perceived benefits of integrating indigenous health knowledge into secondary school curricula, indicating a broad consensus among the two stakeholder groups regarding its educational, cultural, and public health value. The findings are further supported by the Culturally Responsive Pedagogy Theory of Ladson-Billings (1995), which posits that effective teaching and learning should reflect learners' cultural experiences, values, and knowledge systems. Consequently, the findings reinforce the proposition that culturally grounded curricula enhance educational relevance, strengthen cultural identity, and promote meaningful learning experiences.

Perceived Challenges of Integrating Indigenous Health Knowledge into Secondary School Curricula

The findings further indicated that educational managers and public health professionals perceived several challenges associated with integrating indigenous health knowledge into secondary

school curricula. The major challenges identified included the dominance of Western-oriented curricula, insufficient teacher preparation, lack of instructional materials, inadequate government policy support and limited collaboration between educational institutions and indigenous health practitioners. The respondents also agreed that negative perceptions of indigenous health practices and inadequate curriculum guidelines could hinder effective implementation. The findings support those of Matindike and Ramdhany (2024), who identified inadequate curriculum frameworks, limited instructional resources, and insufficient teacher preparedness as major barriers to integrating indigenous knowledge into formal education. Similarly, Dei et al. (2025) reported that institutional resistance and the continued dominance of Western epistemologies impede the effective integration of indigenous knowledge systems into educational programmes. However, the findings are inconsistent with those of Mbah et al. (2021), who primarily emphasized the developmental and sustainability benefits of indigenous knowledge systems and paid limited attention to the practical challenges associated with their integration into formal education.

The study further found no significant difference between the mean ratings of educational managers and public health professionals on the perceived challenges of integrating indigenous health knowledge into secondary school curricula, indicating a broad consensus among the two stakeholder groups regarding the barriers that may impede effective implementation. The findings are further supported by the Culturally Responsive Pedagogy Theory of Ladson-Billings (1995), which advocates the recognition and incorporation of learners' cultural backgrounds and community knowledge into educational practices. Consequently, the persistence of Western-oriented curricular structures, inadequate policy support and insufficient teacher preparation suggests that educational systems have not sufficiently embraced culturally responsive approaches to teaching and curriculum development.

Conclusion

This study examined the perceived benefits and challenges of integrating indigenous health knowledge into secondary school curricula in Anambra State, Nigeria. The findings revealed that educational managers and public health professionals perceived such integration as beneficial for preserving indigenous health practices, promoting culturally responsive education, and enhancing students' understanding of health and well-being. However, they also identified challenges such as inadequate policy support, insufficient teacher preparation, lack of instructional materials, and the dominance of Western-oriented curricula. The study therefore concluded that the integration of indigenous health knowledge into secondary school curricula is both necessary and desirable, but its successful implementation requires deliberate curriculum reforms and institutional support.

Educational Implications

The findings of this study have important implications for educational practice and policy. The perceived benefits of integrating indigenous health knowledge into secondary school curricula suggest that curriculum developers should incorporate indigenous health concepts into relevant school subjects to make learning more culturally responsive and relevant to students' local realities. Such integration can also contribute to the preservation of indigenous health practices and promote students' understanding of health promotion and disease prevention.

The identified challenges imply the need for deliberate policy reforms, teacher capacity-building programmes and the development of appropriate instructional materials to support implementation. Educational managers and policymakers should also strengthen collaboration between schools, public health professionals and indigenous health practitioners to facilitate the effective integration of indigenous health knowledge into the curriculum. Ultimately, the findings underscore the need to decolonise the curriculum by recognising indigenous knowledge systems as valuable sources of knowledge for promoting culturally relevant and sustainable health education.

Limitations

This study was limited to public secondary school principals and public health professionals in Anambra State, Nigeria; therefore, the findings may not be generalised to other categories of educational stakeholders or other geographical contexts. In addition, the study relied on self-reported data obtained through questionnaires, which may have been influenced by respondents' personal biases and subjective opinions. Future studies could include a wider range of stakeholders and employ mixed methods approaches to provide a more comprehensive understanding of the integration of indigenous health knowledge into school curricula.

Recommendations

1. The Anambra State Ministry of Education and curriculum agencies should develop and integrate an indigenous health education framework into secondary school curricula to enhance culturally responsive learning and improve students' understanding of local health practices and disease prevention.
2. Government and educational authorities should establish school–community partnerships involving public health professionals and indigenous health practitioners and provide teachers with periodic training and instructional resources to facilitate the effective implementation of indigenous health knowledge in schools.

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Ethical Considerations

Ethical approval for the study was obtained from the Research Ethics Committee of the Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. Permission to conduct the study was also obtained from the relevant educational and health authorities in Anambra State. Participation in the study was voluntary and informed consent was obtained from all respondents. The anonymity and confidentiality of participants' responses were assured and the information collected was used solely for academic purposes.

Conflict of Interest participants

The authors declare no conflict of interest.

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REFERENCES

- Aina, J. K. (2025). Integrating African indigenous knowledge in African schools to decolonise science education. *Indonesian Journal of Science and Mathematics Education*, 8(2). <https://doi.org/10.24042/ijsme.v8i2.26087>
- Coombe, L., Lee, V., & Robinson, P. (2017). Integration models for indigenous public health curricula. *Higher Education Research & Development*, 36(4), 645–659.

- <https://doi.org/10.1080/07294360.2016.1229269>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- da Silva, C., Pereira, F., & Amorim, J. P. (2023). The integration of indigenous knowledge in school: A systematic review. *Compare: A Journal of Comparative and International Education*. <https://doi.org/10.1080/03057925.2023.2184200>
- Dei, D. G. J., Anane-Donkor, L., Dzandza, P. E., Peasah, T., & Puttick, C. P. (2025). Synthesizing the characteristics and applications of indigenous knowledge for sustainable development: A systematic review. *SAGE Open*, 15(4). <https://doi.org/10.1177/21582440251383843>
- Drake, S. M., & Reid, J. L. (2020). Integrated curriculum as an effective way to teach 21st century capabilities. *Asia Pacific Journal of Educational Research*, 3(1), 31–50.
- Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.
- Ijatuyi, E. J., Lamm, A., Yessoufou, K., Suinyuy, T., & Patrick, H. O. (2025). Integration of indigenous knowledge with scientific knowledge: A systematic review. *Environmental Science & Policy*, 170, 104119. <https://doi.org/10.1016/j.envsci.2025.104119>
- Ikegbusi, N. G. & Iheanacho, R.C. (2016). An evaluation of the application of secondary school entrepreneurship curriculum to youth empowerment in Anambra state. *Unizik Journal of Educational Management and Policy*, 1(1), 67-77.
- Ikegbusi, N. G. (2022). Research design and stages in research design. In N. J. Obikeze (Ed.), *Basic research method: Principles and techniques* (pp. 264-280). Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus.
- Ikegbusi, N. G. (2025). Innovative classroom management approaches of teachers as predictors of students' academic performance in public secondary schools in Anambra State, Nigeria. *Unizik Journal of Educational Laws and Leadership Studies*, 2(1), 230-245.
- Ikegbusi, N. G., Manafa, F. U. & Edor, J. J. (2026a). Utilization of artificial intelligence applications for enhancing schools' supervision in public secondary schools in Anambra State, Nigeria. *Multidisciplinary Journal of Law, Education and Humanities (MJLEH)*, 3(1), 1- 12.
- Ikegbusi, N. G., Obumse, N. A., Udegbe, C. C., Awadiegwu, A. E. & Oranusi, N. S. (2026b). Integrating local knowledge systems into public secondary school curriculum: Students' awareness, engagement and cultural identity in Anambra State, Nigeria. *Unizik Journal of Educational Laws and Leadership Studies (UNILAWS)*, 5(1), 93- 110.
- Ikegbusi, N. G., Udegbe, C. C., Awadiegwu, A. E. & Oranusi, N. S. (2026c). Artificial intelligence competencies and administrative effectiveness among public secondary school principals in Anambra State, Nigeria. *Unizik Journal of Educational Research and Policy Studies (UNIJERPS)*, 21(2), 176- 191.
- Kolade, O. S. (2025). Integrating indigenous knowledge into early childhood education curricula in Nigeria: Implications for learning and cultural sustainability. *Real Kiddos: Jurnal Pendidikan Anak Usia Dini*. <https://doi.org/10.53547/jebzdk41>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465–491. <https://doi.org/10.3102/00028312032003465>
- Matindike, F., & Ramdhany, V. (2024). Incorporating indigenous knowledge perspectives in integrated STEM education: A systematic review. *Research in Science and Technological Education*, 42(5), 1022–1042. <https://doi.org/10.1080/02635143.2024.2413675>
- Mbah, M., Ajaps, S., & Molthan-Hill, P. (2021). A systematic review of the deployment of indigenous knowledge systems towards climate change adaptation in developing world contexts: Implications for climate change education. *Sustainability*, 13(9), 4811.

<https://doi.org/10.3390/su13094811>

- Mkosi, N. N., Mavuso, M. P., & Olawumi, K. B. (2023). Using Ubuntu values in integrating African indigenous knowledge into teaching and learning: A review of literature. *International Journal of Learning, Teaching and Educational Research*, 22(5), 143–160.
- Obi, I., Obi, Z., & Ikegbusi, N. (2022). Population and sampling techniques. In N. J. Obikeze (Ed.), *Basic research method: Principles and techniques* (pp. 86–104). Faculty of Education, Chukwuemeka Odumegwu Ojukwu University.
- Pitama, S. G., Palmer, S. C., Huria, T., Lacey, C., & Wilkinson, T. (2018). Implementation and impact of indigenous health curricula: A systematic review. *Medical Education*, 52(9), 898–909. <https://doi.org/10.1111/medu.13613>
- United Nations Educational, Scientific and Cultural Organization. (2021). *Local and indigenous knowledge systems (LINKS) programme: Annual report 2021*. UNESCO. <https://www.unesco.org/en/links>
- World Health Organization. (2023). *WHO traditional, complementary and integrative medicine global strategy 2025–2034*. World Health Organization. <https://www.who.int/teams/traditional-complementary-and-integrative-medicine/global-strategy>