



# Ethnomedical Beliefs and Biomedical Interventions: Bridging the Gap in Cancer Care in Eastern Nigeria

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## ABSTRACT

Cancer care in Eastern Nigeria is marked by a complex interaction between ethnomedical beliefs and biomedical interventions. While biomedical approaches, such as chemotherapy, surgery, and radiation, provide advanced treatment options, traditional healing practices remain deeply embedded in the region's cultural fabric. Many patients rely on traditional healers for both physical and spiritual care, often due to economic, cultural, and social factors. This review explores the role of ethnomedical beliefs in shaping cancer diagnosis, treatment choices, and patient adherence to biomedical therapies. It also examines the challenges of integrating traditional and biomedical systems in cancer care, with an emphasis on culturally sensitive interventions, community engagement, and collaborative models. By highlighting successful integration efforts, such as community-based training for traditional healers and faith-based outreach initiatives, the review proposes pathways for enhancing cancer care outcomes. The study underscores the need for a more inclusive, patient-centered approach that respects cultural beliefs while improving access to effective biomedical treatments.

**Keywords:** Cancer care, Eastern Nigeria, ethnomedical beliefs, biomedical interventions, traditional medicine.

## INTRODUCTION

Cancer has become an escalating public health concern in Nigeria, with increasing incidence and mortality rates, particularly in the eastern region [1]. This area, characterized by a mix of rural and semi-urban communities, faces significant healthcare disparities, limited access to diagnostic and treatment facilities, and deeply entrenched cultural practices [2]. While cancer remains one of the leading causes of non-communicable disease-related deaths globally, its impact in low- and middle-income countries such as Nigeria is profound due to systemic weaknesses in healthcare infrastructure, insufficient awareness, and late-stage presentation of the disease [3]. Among these challenges, one of the most complex and culturally nuanced issues is the coexistence and tension between biomedical cancer care and traditional ethnomedical beliefs [4].

Eastern Nigeria, home to the Igbo ethnic group and a diverse range of sub-ethnic communities, holds a long-standing tradition of indigenous healing systems. Traditional medicine in this context encompasses a wide range of practices, including herbalism, spiritual healing, divination, and ancestral worship [5]. These methods, often passed down through generations, remain integral to the cultural identity and health-seeking behavior of many individuals in the region. Despite the increasing availability of biomedical health services, traditional healers continue to serve as the first point of contact for many patients with serious illnesses, including cancer [6].

The biomedical model, which emphasizes evidence-based diagnosis and treatment through chemotherapy, radiation, surgery, and palliative care, has made significant strides in cancer care globally [7]. However, in Nigeria's eastern region, these services are not equitably distributed, and where available, they are often unaffordable or inaccessible to rural populations. In this vacuum, traditional healers provide not only physical remedies but also spiritual and emotional support that resonates with patients' worldviews. Consequently, many cancer patients resort to traditional healing either exclusively or concurrently with hospital-based treatment [8].

This situation raises critical questions about the interaction between ethnomedical and biomedical paradigms. How do cultural beliefs influence cancer diagnosis and treatment choices? What role do economic and social factors play in determining care pathways? How can healthcare systems incorporate cultural sensitivity without compromising the efficacy of treatment? Addressing these questions is essential in improving cancer outcomes in Nigeria, reducing morbidity and mortality, and enhancing the overall quality of life for cancer patients.

Despite advancements in cancer research, diagnostics, and therapy, the uptake of biomedical cancer care remains suboptimal in Eastern Nigeria. A significant proportion of cancer patients either delay or entirely forgo biomedical treatment in favor of traditional healing practices [9]. This delay often leads to late-stage presentations, poor treatment outcomes, and increased mortality rates. While numerous health campaigns and awareness programs have been launched to educate the public on the benefits of early detection and modern treatment, cultural perceptions of illness, spiritual causation beliefs, and a lack of trust in the formal health system continue to impede progress [10]. Moreover, traditional healers are often not formally recognized by the state, yet they wield immense influence within their communities. Their roles, knowledge systems, and practices are seldom integrated into national health frameworks, leading to a fragmented approach to cancer care [11]. The lack of dialogue and cooperation between traditional and biomedical practitioners creates a gap that exacerbates health disparities and limits the potential for a holistic, patient-centered approach to care [12]. This study aims to investigate and bridge the existing gap between traditional and biomedical cancer treatment approaches in Eastern Nigeria by addressing specific cultural, economic, and systemic factors that shape patient choices and healthcare delivery. The study sets out to explore the cultural beliefs and practices that influence cancer treatment preferences, seeking to understand why patients often rely on traditional medicine, due to reasons that may include economic hardship, spiritual beliefs, and social norms. Furthermore, it examines the attitudes and perceptions of biomedical practitioners towards traditional healing methods and how these views affect collaboration or conflict in cancer management. Another objective is to assess the potential for integrative care models that harmonize traditional healing with evidence-based biomedical practices, creating pathways for respectful, culturally appropriate, and medically effective interventions. The study also intends to offer policy recommendations and educational strategies that acknowledge cultural realities while promoting optimal healthcare outcomes. Research questions guiding the study focus on identifying dominant ethnomedical beliefs, the rationale behind combining or preferring traditional healing, professional attitudes toward indigenous practices, and the feasibility of integrated care systems. The significance of this research lies in its potential to reshape cancer care by promoting cultural competence among healthcare providers and recognizing the influential role of traditional healers. By providing a platform for mutual understanding and collaboration between biomedical and traditional systems, the study seeks to enhance early diagnosis, adherence to treatment, and trust in healthcare institutions. It also offers valuable insights for policymakers in designing inclusive health policies, such as training traditional healers, establishing formal referral systems, and initiating culturally sensitive community outreach programs. Beyond its local impact, the study contributes to global health and medical anthropology by presenting a case study that highlights the interplay between culture and modern healthcare in a low-resource setting. Ultimately, this research aspires to foster equitable, inclusive, and effective cancer care solutions in Eastern Nigeria and similar socio-cultural contexts.

### **Ethnomedical Beliefs in Eastern Nigeria**

In Eastern Nigeria, ethnomedical beliefs deeply shape the perception and management of illnesses, including cancer. Cancer is not merely seen as a biological disease but is frequently interpreted through spiritual and cultural lenses [13]. Many communities view it as a manifestation of supernatural forces, often attributing the condition to witchcraft, curses, or ancestral punishment. These cultural perceptions profoundly influence how individuals recognize symptoms, often leading to delayed diagnoses and a preference for non-biomedical interventions. The belief that cancer originates from metaphysical causes prompts patients and their families to seek alternative explanations and treatments outside conventional medicine. Within this cultural framework, traditional healers play a pivotal role in healthcare [14]. They are trusted figures in their communities and often the first point of contact for individuals exhibiting cancer symptoms. These healers provide a range of services, including herbal remedies, spiritual cleansing, and divination, aligning their practices with the belief that healing must address both the physical and spiritual dimensions of illness. Herbal medicine remains central to cancer care, with preparations made from roots, barks, and leaves believed to possess powerful healing properties. Alongside these remedies, spiritual therapies are commonly practiced. Religious faith and ritualistic practices—such as prayer, fasting, laying on of hands, and anointing with oil—are believed to invoke divine healing and ward off malevolent forces. This integrated approach, blending herbal, spiritual, and cultural elements, reflects a holistic worldview in which health and illness are intimately tied to spiritual and communal well-being [15].

### **Biomedical Interventions in Cancer Care**

Cancer diagnosis and treatment in Eastern Nigeria face significant challenges due to systemic healthcare limitations and sociocultural factors. One of the foremost issues is the acute shortage of diagnostic facilities and trained oncologists, which often results in the delayed detection of cancer cases [16]. When cancer is eventually diagnosed, treatment options such as surgery, chemotherapy, and radiotherapy are typically concentrated in tertiary hospitals located in urban centers, making them inaccessible to patients in rural areas. The biomedical care system is further hindered by multiple barriers, including high out-of-pocket costs, low levels of awareness about cancer symptoms and treatment, poor transportation infrastructure, and limited access to health facilities. Cultural beliefs and skepticism about modern medicine also deter individuals from seeking timely care. Language differences and inadequate communication between healthcare providers and patients exacerbate the situation, leading to misunderstandings and reduced treatment adherence. Furthermore, many patients view biomedical care as ineffective due to long wait times for diagnostic results, the painful and sometimes visible side effects of treatments like chemotherapy, and occasional misdiagnoses. These experiences foster mistrust in the healthcare system and encourage continued reliance on traditional medicine, which is often more accessible, culturally accepted, and perceived as safer, despite the lack of scientific validation for its efficacy [17].

#### **Bridging the Gap: Integration Strategies**

Culturally sensitive oncology practice is essential for enhancing patient outcomes, particularly in diverse and resource-constrained settings. Training healthcare professionals to be culturally competent enables them to appreciate and respect the values, beliefs, and customs of their patients, which in turn fosters trust, enhances communication, and improves treatment compliance [18]. One effective approach is incorporating ethnographic assessments into cancer care, which helps identify cultural belief systems that influence patients' health-seeking behaviors and responses to treatment. In addition to culturally competent care, collaboration between biomedical practitioners and traditional healers is a promising strategy. By educating traditional practitioners on early symptoms of cancer and encouraging them to refer patients to formal health facilities, the health system can become more inclusive and responsive [19]. Pilot programs that integrate traditional healers as community health advocates have already demonstrated success in promoting early referrals and raising awareness. Furthermore, community-based health education plays a vital role in dispelling misconceptions about cancer. Outreach initiatives that utilize local dialects, radio broadcasts, and village gatherings ensure that vital health information reaches even the most remote populations [20]. Involving influential figures such as religious and traditional leaders lends credibility to the message and enhances community buy-in. Together, these culturally tailored interventions can significantly improve early detection, patient adherence, and the overall effectiveness of cancer care.

#### **Case studies, best practices, challenges, ethics, and future directions**

The integration of traditional and biomedical approaches in cancer care has led to innovative practices and programs across Nigeria, showcasing how cultural and healthcare systems can collaborate effectively [21]. One notable initiative is the Nsukka Referral Program in Enugu State, a community-driven effort that trained traditional healers to recognize early signs of cancer and refer patients to health centers. This program significantly improved early diagnosis rates, bridging the gap between traditional knowledge and modern healthcare. Similarly, the Faith-Based Outreach in Abia State exemplifies the power of religious institutions in promoting health awareness. Churches partnered with local hospitals to offer cancer screenings during religious gatherings, making screening services more accessible while reducing the stigma surrounding cancer. However, there are challenges in the integration of traditional medicine with modern healthcare, particularly concerning quality control and the safety of herbal remedies. Ensuring that traditional treatments do not interfere with biomedical therapies requires rigorous evaluation and monitoring [22]. Another ethical concern is balancing respect for cultural beliefs with the need for scientifically accurate information, especially in informed consent processes. Patients must be allowed to make autonomous decisions while understanding the benefits and risks of both traditional and biomedical treatments. Additionally, issues surrounding intellectual property and the potential for cultural appropriation of indigenous knowledge highlight the need for ethical guidelines that protect traditional practices while supporting evidence-based integration into mainstream healthcare.

Looking ahead, there is a growing call for interdisciplinary research to validate the effectiveness of traditional remedies, particularly in cancer care. The development of training programs for healthcare workers that incorporate indigenous knowledge systems will be crucial in fostering a more inclusive healthcare environment [23]. Expanding telemedicine and mobile outreach programs will improve access to healthcare services in rural areas. Moreover, policy frameworks supporting integrative oncology models that combine traditional and biomedical treatments could offer a more holistic approach to cancer care, benefiting patients across Nigeria and beyond.

#### **CONCLUSION**

In conclusion, bridging the gap between ethnomedical beliefs and biomedical interventions in cancer care in Eastern Nigeria is critical to improving patient outcomes and fostering a more inclusive healthcare system. While traditional

healing practices play an integral role in the region's health-seeking behavior, they are often in tension with modern biomedical approaches. Cultural beliefs, including spiritual interpretations of illness and reliance on traditional medicine, can lead to delayed diagnoses and limited treatment adherence. However, initiatives like the Nsukka Referral Program and Faith-Based Outreach have demonstrated the potential for effective collaboration between traditional healers and biomedical professionals, improving early diagnosis and access to care. Despite the challenges, such as ensuring the safety of herbal remedies and balancing cultural respect with scientifically accurate information, there is a clear path forward. Promoting interdisciplinary research, integrating traditional knowledge into healthcare training, expanding telemedicine, and developing policy frameworks to support integrative oncology models are essential steps. By embracing both cultural and medical perspectives, a more comprehensive, patient-centered approach to cancer care can be established. This will not only enhance trust in healthcare institutions but also provide a model for other regions where traditional and modern healthcare systems coexist, ultimately leading to better cancer care outcomes for all.

## REFERENCES

1. Alum, E. U., Obeagu, E. I., Ugwu, O. P. C., Orji, O. U., Adepoju, A. O., Amusa, M. O. Edwin, N. Exploring natural plant products in breast cancer management: A comprehensive review and future prospects. *International Journal of Innovative and Applied Research*. 2023; 11(12):1-9. Article DOI:10.58538/IJIAR/2055. DOI URL: <http://dx.doi.org/10.58538/IJIAR/2055>
2. Sharma, A., Alatise, O.I., O'Connell, K., Ogunleye, S.G., Aderounmu, A.A., Samson, M.L., Wuraola, F., Olasehinde, O., Kingham, T.P., Du, M.: Healthcare utilisation, cancer screening and potential barriers to accessing cancer care in rural South West Nigeria: a cross-sectional study. *BMJ Open*. 11, e040352 (2021). <https://doi.org/10.1136/bmjopen-2020-040352>
3. Awafung E A, Ugwu O P C, Anyanwu C N, Alum E U, Okon M B, Egba S I, Uti D E (2024). CRISPR-Cas9 Mediated Gene Editing for Targeted Cancer Therapy: Mechanisms, Challenges, and Clinical Applications. *Newport International Journal Of Biological And Applied Sciences*, 5(1):97-102. <https://doi.org/10.59298/NIJBAS/2024/5.1.9297102>
4. Mwaka, A.D., Achan, J., Adoch, W., Wabinga, H.: From their own perspectives: a qualitative study exploring the perceptions of traditional health practitioners in northern Uganda regarding cancers, their causes and treatments. *BMC Family Practice*. 22, 155 (2021). <https://doi.org/10.1186/s12875-021-01505-w>
5. Jm, O.: Ethics of folk medicine among the Igbo. *PubMed*.
6. Febriyanti, R.M., Saefullah, K., Susanti, R.D., Lestari, K.: Knowledge, attitude, and utilization of traditional medicine within the plural medical system in West Java, Indonesia. *BMC Complementary Medicine and Therapies*. 24, 64 (2024). <https://doi.org/10.1186/s12906-024-04368-7>
7. Ugwu, C. N. Alum, E. U., Ugwu, O. P. C., Obeagu, E. I., Beyond Conventional Therapies: Exploring Nutritional Interventions for Cervical Cancer Patients, *J, Cancer Research and Cellular Therapeutics*, 8(1):1-6. DOI:10.31579/2640-1053/180
8. Asiimwe, J.B., Nagendrappa, P.B., Atukunda, E.C., Nambozi, G., Tolo, C.U., Ogwang, P.E., Kamatenesi, M.M.: The meaning of caring for patients with cancer among traditional medicine practitioners in Uganda: A grounded theory approach. *PLOS Glob Public Health*. 3, e0001764 (2023). <https://doi.org/10.1371/journal.pgph.0001764>
9. Bourgeois, A., Horrill, T., Mollison, A., Stringer, E., Lambert, L.K., Stajduhar, K.: Barriers to cancer treatment for people experiencing socioeconomic disadvantage in high-income countries: a scoping review. *BMC Health Services Research*. 24, 670 (2024). <https://doi.org/10.1186/s12913-024-11129-2>
10. Kahissay, M.H., Fenta, T.G., Boon, H.: Beliefs and perception of ill-health causation: a socio-cultural qualitative study in rural North-Eastern Ethiopia. *BMC Public Health*. 17, 124 (2017). <https://doi.org/10.1186/s12889-017-4052-y>
11. Subedi, B.: Perspective Chapter: Integrating Traditional Healers into the National Health Care System – A Review and Reflection. Presented at the February 1 (2023)
12. Jama, N.A., Nyembezi, A., Ngcobo, S., Lehmann, U.: Collaboration between traditional health practitioners and biomedical health practitioners: Scoping review. *Afr J Prim Health Care Fam Med*. 16, 4430 (2024). <https://doi.org/10.4102/phcfm.v16i1.4430>
13. Mohite, P., Yadav, V., Pandhare, R., Maitra, S., Saleh, F. M., Saleem, R. M., Al-malky, H. S., Kumarasamy, V., Subramanian, V., Abdel-Daim, M. M., & Uti, D. E. (2024). Revolutionizing Cancer Treatment: Unleashing the Power of Viral Vaccines, Monoclonal Antibodies, and Proteolysis-Targeting Chimeras in the New Era of Immunotherapy. *ACS Omega*, 9(7), 7277–7295. <https://doi.org/10.1021/acsomega.3c06501>

14. Msoka, E.F., Dwarampudi, S., Billings, R., Stone, R.J., Mwageni, R.E., Beavers, A., Mmbaga, B.T., Gutnik, L.: The role of traditional healers along the cancer care continuum in Sub-Saharan Africa: a scoping review. *Arch Public Health*. 83, 35 (2025). <https://doi.org/10.1186/s13690-025-01521-7>
15. Uti D E, Alum E U, Obeagu E I, Ugwu O P C, Alum B N. Cancer's Psychosocial Aspects: Impact on Patient Outcomes. *Elite Journal of Medicine*, 2024; 2(6): 32-42.
16. Omotoso, O., Teibo, J.O., Atiba, F.A., Oladimeji, T., Paimo, O.K., Ataya, F.S., Batiha, G.E.-S., Alexiou, A.: Addressing cancer care inequities in sub-Saharan Africa: current challenges and proposed solutions. *International Journal for Equity in Health*. 22, 189 (2023). <https://doi.org/10.1186/s12939-023-01962-y>
17. Emmanuel, N. T., Yuwon, N B., Egba, S. I., Ndohnu, N. N. (2012) Prevalence, associated risk factors and methods of diagnosing cervical cancer in two hospitals in Yaounde, Cameroon. *International Journal of Advanced Research in Pharmaceutical and Biosciences*, 3(1): 55-59
18. Armin R, Sami G T, Mark W C, Benjamin M G (2012). *Fusobacterium nucleatum* infection mimicking metastatic cancer. *Indian Journal of Gastroenterology*, 31, 198-200.
19. Ugwu, O. P. C., Alum, E. U., Obeagu, E. I. Cervical Cancer Prevention Paradox: Unveiling Screening Barriers and Solutions, *J, Cancer Research and Cellular Therapeutics*. 2024, 8(2):1-5. DOI:10.31579/2640-1053/182
20. Zakari, S., Cleanclay, W.D., Bella-Omunagbe, M., Zakari, H., Ogbu, C.O., Uti, D.E., Ogunlana, O.O.: The role of SRC-3 in prostate cancer progression and implications for therapeutic targeting: A systematic review. *J Pharm Pharmacogn Res*. 12, 994–1007 (2024). [https://doi.org/10.56499/jppres23.1916\\_12.5.994](https://doi.org/10.56499/jppres23.1916_12.5.994)
21. Faculty of Pharmacy Kampala International University Uganda, Arnold, N.: Evaluating Treatment and Management Strategies for Diarrhea and Typhoid Fever in Uganda. *IDOSR-JST*. 10, 25–30 (2024). <https://doi.org/10.59298/IDOSR/JST/24/102.253000>
22. Manar M, Elnaem M. H, Ejaz C., Ismail I., Jamalludin Ab R, Ahlam N K, How S H (2021). Cancer-associated thrombosis: a clinical scoping review of the risk assessment models across solid tumours and haematological malignancies. *International Journal of General Medicine*, 3881-3897.
23. Alum, E.U.: The role of indigenous knowledge in advancing the therapeutic use of medicinal plants: challenges and opportunities. *Plant Signal Behav*. 19, 2439255. <https://doi.org/10.1080/15592324.2024.2439255>

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