



Deposited via The University of Leeds.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/236362/>

Version: Accepted Version

Article:

Witty, C.E., Ogunmuyiwa, J., Yibrehu, B. et al. (2026) The State of Palliative Care in Nigeria: A Scoping Review. *Journal of Pain and Symptom Management*. ISSN: 0885-3924

<https://doi.org/10.1016/j.jpainsymman.2026.01.002>

This is an author produced version of an article published in *The Journal of Pain and Symptom Management*, made available via the University of Leeds Research Outputs Policy under the terms of the Creative Commons Attribution License (CC-BY), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:
<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



PALLIATIVE CARE IN NIGERIA

The State of Palliative Care in Nigeria: A Scoping Review

Colleen E. Witty, MD, MPH,^{*1,2} Joy Ogunmuyiwa, MD, MPH,^{*1,2} Betel Yibrehu, MD,^{**1,2}
Sharif Folorunso, MD,^{***3} Erica J. Mann, MD,^{***1,2} Catherine N. Zivanov, MD, MPH,^{***1,2}
Folaju Olusegun Oyebola, MBBS, DAWCS,⁴ Temidayo Avwioro, MSN, RN,⁵
Matthew J. Allsop, PhD, BSc,⁶ Lindsay Boyce, MLIS,⁷ Faith S. Fasakin, BSc,¹ Chinenye Iwuji, MD,⁸
Dalhat Khalid Sani, PhD, RN, FWACNM,^{2,9} Kathleen Lynch, MS, MPH,^{10,17}
Karen S. Moore, PhD, DNP, APRN,¹¹ Israel A. Owoade, MD,² Kailey E. Roberts, PhD,¹²
Anya Romanoff, MD,¹³ Victoria L. Mango, MD,^{1,2,14} T. Peter Kingham, MD, FACS,^{1,2,15}
Olusegun Isaac Alatise, MBChB, MSc, FWACS,^{1,2,16} William E. Rosa, PhD, MBE, APRN¹⁷

* Co-first author;

** Co-second author;

*** Co-third author

- 1 Global Cancer Research and Training, Memorial Sloan Kettering Cancer Center, New York, NY, United States
- 2 African Research Group for Oncology (ARGO), Ile-Ife, Nigeria
- 3 Department of Radiology, Obafemi Awolowo University Teaching Hospitals Complex, Ile Ife, Nigeria
- 4 Clinical Pharmacology Department, Babcock University Ilishan Remo, Ogun-State, Nigeria
- 5 Department of Nursing Services, Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, Nigeria
- 6 Leeds Institute of Health Sciences, University of Leeds, UK
- 7 Medical Library, Memorial Sloan Kettering Cancer Center, New York, NY, United States
- 8 Department of Medical Oncology, Lakeshore Cancer Center, Victoria Island, Lagos
- 9 Department of Nursing Science, Faculty of Allied Health Sciences, College of Medical Sciences, Ahmadu Bello University, Zaria - Nigeria
- 10 Department of Social and Behavioral Sciences, New York University School of Global Public Health, New York, NY;
- 11 Valentine School of Nursing at Saint Louis University, St. Louis, MO, USA
- 12 Ferkauf Graduate School of Psychology, Bronx, NY, USA, Yeshiva University
- 13 Department of Health System Design and Global Health, Icahn School of Medicine, The Mount Sinai Hospital, New York, NY, USA
- 14 Department of Radiology, Memorial Sloan Kettering Cancer Center, New York, NY, United States
- 15 Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, NY, United States
- 16 Department of Surgery, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria.
- 17 Department of Psychiatry and Behavioral Sciences, Memorial Sloan Kettering Cancer Center, New York, NY, United States

Corresponding Author:

William E. Rosa, PhD, MBE, APRN

Assistant Attending Behavioral Scientist

633 Third Avenue, 4th floor

Department of Psychiatry and Behavioral Sciences, Memorial Sloan Kettering Cancer Center, New York, NY, 10017

Phone: 646-689-4044 | Email: rosaw@mskcc.org

PALLIATIVE CARE IN NIGERIA

Tables, figures, and references: PRISMA diagram (Figure 1), Summary of studies (Table 1), Included study types and designs (Table 2), Recommendations for intervention and future research (Table 3), Sample search strategy (supplement Table 1).

Author contributions: Conceptualization: BY, SF, WER; Data curation: LB; Formal analysis: CEW, JO, BY, SF, EJM, CNZ, MJA, FSF, DKS, KL, KSM, FM, IAO, KER, AR, CI, TA, FOO; Methodology: BY, SF, WER; Supervision: WER; Writing - original draft: CEW, JO, BY, EJM, CNZ; Writing - review and editing: All authors.

Article type: Review

Word count (excluding title page, abstract, tables, figures, references): 5,458

Abstract Word Count: 250

Key Message Word Count: 50

Number of tables: 4

Number of figures: 1

Number of references: 93

PALLIATIVE CARE IN NIGERIA

Abstract

Context: Globally, about 85% of palliative care need is unmet. Africa accounts for 20% and 52% of adult and pediatric palliative care burden worldwide, respectively. Nigeria has progressing palliative care provision and meets only 0.2% of national need.

Objectives: To describe extant literature detailing palliative care knowledge, implementation, medicine availability, education, policy, vitality, and research in Nigeria, propose areas for future scientific inquiry, and inform interventional targets.

Methods: Arkey and O’Malley design for scoping reviews reported per the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidelines. PubMed, Embase, Cochrane CENTRAL, Web of Science, Scopus, and African Index Medicus were searched in January 2024 and updated in December 2024. Full-text, peer-reviewed articles in English describing palliative care in Nigeria were included.

Results: Of the 6,116 search results, 290 underwent full-text review and 59 satisfied inclusion criteria. Most studies examined palliative care knowledge, attitudes, and practices while few evaluated implementation practices or interventions. Palliative care awareness in Nigeria is low; however patients, family caregivers, and healthcare professionals have expressed interest in expanded education, infrastructure, and culturally-appropriate delivery models. Persistent challenges include opioid availability, delayed referral, inconsistent education, insufficient institutional and federal policy, and absent professional validation.

Conclusions: The gaps in palliative care in Nigeria identified by this review can inform interventional targets for national acceptance and equitable delivery. It is critical to prioritize multi-level policy changes to expand access to high-quality palliative care services and mitigate the growing burden of suffering among the seriously ill.

Keywords: Palliative care, palliative medicine, terminal illness, Africa, scoping review, serious health-related suffering

Key Message

This scoping review describes existing palliative care literature in Nigeria, predominantly characterized by knowledge and attitudes, with few interventional studies. Federal and institutional policies are needed to regulate quality care implementation, mobilize funding resources, increase access to essential pain medicines, and develop and implement education standards for the healthcare workforce.

PALLIATIVE CARE IN NIGERIA

Introduction

In 2021, there were an estimated 73.5 million people globally with serious health-related suffering (SHS) amenable to palliative care and 80% of that burden existed in low- and middle-income countries (LMICs) (1). Serious illness disparities between LMICs and high-income countries (HICs) have grown rapidly and consistently in prior decades. In fact, from 1990 to 2021, SHS across 21 medical conditions rose by 83% in LMICs compared to a 46% increase in HICs (1). By 2060, 83% of deaths with SHS will occur in the world's poorest countries, where access to palliative care infrastructure and services is most scarce (2).

The World Health Organization recognizes palliative care access as a component of comprehensive healthcare and universal health coverage is considered an ethical and financial responsibility of health systems (3), yet access across the African continent is severely limited (4-8). Africa accounts for an estimated 20% and 52% of adult and pediatric palliative care need worldwide, respectively. In 2013, Nigeria met about 0.2% of the country's palliative care need, an estimate based on access to legal and internationally distributed opioid morphine equivalents (i.e., opioids) (9). From 2017-2025, there was an increase in palliative care services in Africa (10). Most recent data estimate about 4.4% of the palliative care need in LMICs is met through specialist services (10).

Hospice Nigeria began in 1993 by Mrs. Olusola Fatunmbi, a nurse who was inspired by her encounter with palliative care in London (11). She partnered with Dr. Anne Merriman to expand access, however efforts to engage the Nigerian government were deterred until 2003 (12). Some of the earliest hospital-based pain and palliative care units were established at the Federal Medical Centre in Abeokuta, Nigeria in 2006 and University College Hospital in 2007 (13,14). Since then, multiple palliative care units have been formed; however, widespread service coverage and integration remain limited.

In response to the unmet need, the Federal Ministry of Health incorporated palliative care into the National Cancer Control Plan of 2018-2022 and published a National Policy and Strategic Plan for Hospice and

PALLIATIVE CARE IN NIGERIA

Palliative Care in 2021, yet the objectives have not been realized (15,16). Persistent inhibitors to palliative care include insufficient workforce, poor referral pathways, incongruent cultural views toward end of life care, lack of institutional funding, low affordability of care, and inaccessible opioid medications (17,18). Though progress is insufficient to meet national level need, there has been ongoing expansion of palliative care services through home-based care programs, increased training opportunities, and nationwide awareness campaigns (14,16,19,20). A recent survey of five palliative care programs across Nigeria demonstrate that all provide inpatient, outpatient, and home-based services as well as routine palliative care team education, but most face challenges due to lack of physical space and hospital administration support (21).

Given the urgent need to alleviate SHS in Nigeria through improved availability of palliative care, a robust assessment of the landscape of palliative care is needed. We therefore conducted the first scoping review examining the literature to characterize the state of palliative care in Nigeria, including available services, training, and gaps. The findings of this review can guide future research and implementation of programs to bridge the gap in palliative care access in Nigeria.

Methods

A scoping review was chosen for this subject to capture the breadth of literature available on palliative care in Nigeria, and thereafter map areas for future scientific exploration. The Arksey and O’Malley framework for scoping reviews was used (22). Data is reported per the preferred reporting items for systematic reviews and meta-analyses scoping review extension (PRISMA-ScR) (23).

Search strategy

The search strategy for this review was developed by a biomedical librarian at Memorial Sloan Kettering Cancer Center, in the United States and a consultant surgeon at Obafemi Awolowo University in Nigeria.

PALLIATIVE CARE IN NIGERIA

In January 2024, the following electronic databases were searched: PubMed, Embase, Cochrane CENTRAL, Web of Science, Scopus, and African Index Medicus. There was no publication date restriction. Searches were re-run in December 2024 to account for any newly-published studies missed in the initial search.

The search strategy consisted of 2 concepts. First, terms for palliative care such as “palliative care,” “comfort care,” and “end of life care” were searched. Second, terms for Africa or Nigeria such as “Nigeria”, “West Africa”, and “sub-Saharan Africa” were searched. See Supplement Table 1 for further breakdown of search terms and their combinations.

Study selection

Retrieved articles were uploaded to Covidence for removal of duplicates and screening. Each article was independently reviewed by two reviewers at both the title/abstract level to determine whether it satisfied the inclusion criteria (options: yes, no, and maybe). Articles in the “maybe” category proceeded to full-text review by both reviewers. Any conflicts during title/abstract and full-text screening were solved by a third reviewer.

Articles were included if they explored any aspect of palliative care in Nigeria. Included articles were full-text, peer-reviewed articles, written in English. Abstracts, editorials, conference proceedings, grey literature, and articles not yet accepted for publication were excluded. Articles were excluded if palliative care was not the main subject or a specific topic, or if they had limited or no information regarding Nigeria. Articles focused on acute post-operative pain, palliative radiation or surgery were excluded.

Data extraction

Data from eligible articles was collected in an electronic spreadsheet. The following information (if applicable) was extracted from each article: author(s), year of publication; type of publication; pillar(s) of

PALLIATIVE CARE IN NIGERIA

palliative care addressed; details of strategy; study type; study location; study aim(s); study population and sample characteristics; methodology/methods; key findings and conclusion.

Data analysis and presentation

Given that palliative care development and access in Nigeria remains in a nascent stage, we first sought to appraise the literature based on stakeholders' knowledge, attitudes, and practices to explore how they understand and engage palliative care. The state of palliative care will then be analyzed relative to a framework adapted from the World Health Organization public health palliative care strategy and previous scoping reviews of palliative care in Africa (5,24,25). These pillars are implementation, medicine availability, health care policy, education, vitality, and research.

Publication data regarding target audience, study design, and location, were analysed using descriptive frequencies and counts. Gaps in the literature, effective implementation strategies, and areas of further research in how to effectively improve palliative care in Nigeria were identified using previously published approaches in sub-Saharan Africa (25).

Results

Search Results

A total of 6,116 studies were identified from the database search. Publication dates ranged from 1997 to 2024. Duplicates were identified among 2,856 records, resulting in 3,260 which underwent title and abstract screening. Of these, 290 underwent full text review. The PRISMA diagram provides additional detail about the search results at each stage (Figure 1). A total of 59 total studies were deemed relevant to the research questions and are included in this review. Table 1 summarizes each study methodology, target population, and key findings.

PALLIATIVE CARE IN NIGERIA

Knowledge, attitudes, and practices was a key theme discussed in 42 studies (26-67). Interventions aimed to improve palliative care through either education or treatment were presented in 7 studies (20,68-73). The overall landscape of palliative care through the lens of implementation, medicine or treatment availability, education, policy, and vitality themes was described in 9 studies (7,12,14,74-79). Additional study types included a book chapter (80).

Study Designs

The 59 studies in this scoping review included 55 (93.2%) original research articles (14,20,26-77,79), 3 (5%) review articles (7,12,78), and 1 book chapter (80). Study designs are depicted in Table 2. Among the 55 original research articles, there were 24 quantitative studies (26-28,37-39,41-50,52,58,62-64,66, 76,77), 22 qualitative studies (29,31-36,40,51,53-56,59-61,65,67,71,74,75,79), 2 mixed methods (30,57), 1 randomized controlled trial (72), and 6 quasi-experimental education interventions (20,68-71,73). Quantitative studies included 23 cross-sectional surveys (26-28,37-39,41,43-50,52,58,62-64,66,76,77) and 1 retrospective cohort study (14). Qualitative studies included 18 interviews or focus group discussions (29,31,32,34,40,42,51,53-56,59-61,65,67,74,79) and 4 longitudinal ethnographic observation studies (33,35,36,75).

Study Locations

Of the 59 reviewed studies, 5 (8.5%) were conducted across multiple geopolitical zones in Nigeria (20,49,65,71,73) and 4 (6.7%) did not have a specific study location (7,12,78,80). Single-site regions included southwest (20) (14,26-29,39-42,45-47,515,57,61,62,64,67,68,77), southeast (17) (30-36,43,50,58-60,66,72,74,75,79), south-south (7) (44,52-56,69), northwest (4) (38,48,63,70), north central (2) (37,76). There were no studies conducted in the northeast.

Study Populations

PALLIATIVE CARE IN NIGERIA

Research was conducted across a variety of stakeholders. Patients, caregivers, and community members were included in 20 studies (14,27,29-31,39-41,44,49,51,52,55,56,58-60,72,73,77) whereas healthcare workers, trainees, and health institution administrative leadership were included in 27 studies (20,26,28,32,33,37,38,42,43,45-48,50,54,57,62-67,68-71,76). A total of eight studies included a mix of healthcare professionals, patients, and caregivers (34-36,53,61,74,75,79). Four studies did not include a targeted research population as these included three reviews (7,12,78) and a book chapter (80).

Knowledge, Attitudes, and Practices

Palliative Care

Patients, Caregivers, and Community Members' Perceptions of Palliative care

Patients and caregivers in Nigeria report limited overall knowledge of palliative care and a lack of awareness of available palliative services regardless of socioeconomic status, level of education, religion, or geographic location (27,39,49). However, despite low levels of palliative care knowledge and limited access to available palliative care services, attitudes toward the utility of palliative care are generally positive (27). Because patients and caregivers understand how palliative care may enhance quality of life and provide hope, they strongly support more palliative care services and the expansion of hospice infrastructure, including in-home and in-patient hospice services (27,49).

Psychosocial, spiritual, financial, and physical concerns can arise following a serious diagnosis, leaving patients and caregivers feeling a lack of agency in making informed decisions about their care (29,49,52,65). Poor disclosure practices by the provider, such as partial disclosure of diagnosis or prognosis, and unclear delineation of provider roles, can contribute to patient distress, a poor understanding of their illness, premature termination of care, and missed clinical appointments (35,53). In addition, patients' socioeconomic status, health literacy, social networks, and the structural organization of the health care

PALLIATIVE CARE IN NIGERIA

delivery system they seek care in, can influence whether and when a patient or caregiver seeks palliative care, and how they experience it (33).

Relational care, which emphasizes emotional connection, mutual understanding, and the affirmation of patient dignity, is particularly valued, with ideal caregiving described as a process of “knowing, revealing, and humanizing” (61). Easily accessible palliative care services, opportunities for social interaction, and accurate provider communication are also valued (29).

Healthcare Workers’ Perceptions of Palliative Care

Healthcare providers in Nigeria, regardless of discipline or speciality, report limited knowledge of palliative care, particularly in pain management and key communication areas such as delivering bad news, discussing prognosis, and involving families in patient care (37,43,45,65). There are a number of misconceptions that have been identified among healthcare providers. These include that palliative care is “aimed at life prolongation” or that palliative care is “primarily disease-oriented” rather than person-oriented, suggesting a misunderstanding of its holistic, person-centered approach focused on relieving suffering and enhancing quality of life, rather than solely managing disease (37). And whilst many healthcare providers are confident in providing pain and symptom management, confidence in diagnosing dying and in patient communication, such as initiating end-of-life conversations is low, especially among younger, less experienced providers (65).

Pharmacists and social workers are often underutilized members of the palliative care team, citing unawareness of their roles and limited, if any, involvement in interdisciplinary clinical activities such as team meetings or home visits (28,32).

Level of training is a major determinant of palliative care knowledge and confidence across cadres (62,70). However, lack of infrastructure and limited workforce are also essential determinants and can negatively

PALLIATIVE CARE IN NIGERIA

affect service delivery (33,54). Healthcare providers can also face barriers such as cultural stigma associated with palliative care services, issues surrounding timely referral pathways, patient denial of diagnosis, and limited resources (42,54). Despite these barriers, health workers express strong interest in receiving palliative care-specific training (37,62).

Palliative Care Practice Models and Perceived Barriers to Implementation

Several studies describe or propose models of care that include inpatient and outpatient components, 24-hour staffing through shift patterns, and integration of social workers and pharmacists to support counseling, adherence, and resource mobilization across the cancer continuum (28,32,33). Incorporating palliative care into primary care is seen as feasible and desirable, given the trust patients place in community-based providers. However, implementation is limited by unclear delineation of roles and inter-professional distrust between facility-based providers and community health workers (29). Home-based palliative care is another practice model that is seen favorably for its potential to reduce emotional and financial burdens.

Death and End-of-life Planning

End-of-life communication is intended to make sure that medical care and decision-making aligns with a patient's values and preferences. Although these discussions are essential to patient-centered palliative care, healthcare providers often report feeling unprepared and general discomfort with these difficult discussions (47,50,65,67). Other barriers to effective end-of-life communication include cultural taboos on dying and fear of the impact on patients and caretakers (50,67).

Several studies report inadequate shared decision-making in palliative care provision in Nigeria. One reason for this gap is that patients are not always fully informed (26,58,60). Studies show that while most terminally ill patients desire to know their diagnosis and prognosis, providers often under-disclose due to

PALLIATIVE CARE IN NIGERIA

concerns about emotional impact, lack of guidance, or assumptions about patient readiness (26,58,60). Communication also tends to be performed by physicians, with nurses and relatives less frequently involved, and is sometimes conducted in inappropriate settings, such as in the presence of strangers (59). Healthcare providers tend to communicate prognostic information with high levels of optimism, which leads patients to believe in the possibility of ‘God’s miracle for a cure,’ despite their life-ending prognoses (59). Another reason that shared decision-making is not fully integrated into clinics is that newly qualified doctors report low confidence in breaking bad news and limited preparedness in diagnosing dying, shaped by resource constraints, hierarchical norms, and religious-cultural beliefs that discourage openly discussing death (65).

In Nigeria, patient knowledge and engagement with advanced directives remains low. Among older patients, understanding of end-of-life planning is often limited to arrangements for place of death, burial, and property sharing rather than medical treatment decisions (40,41). Cultural beliefs, gender norms, and religious traditions strongly influence end-of-life decision-making including advanced directives. For example, in Yoruba culture, there is a socially accepted order or chain of command that determines who makes and enforces end-of-life decisions and advance directives when the ill person can no longer do so. Major decision-makers are typically the oldest male child, religious leaders, or legal practitioners (40,51). Religious affiliation can also influence provider perspectives. For example, one study found Christian nurses to be less likely than Muslim nurses to contest advanced directive benefits (64). Another significant barrier to participating in end-of-life planning and the creation of advance directives is the perception that end-of-life planning “beckons death,” (30). Some nurses hold the belief that advance directives hinder the delivery of care to the dying and that euthanasia is a moral wrong (66). Also, patients are more likely to engage in end-of-life planning only after experiencing the negative consequences that arise when a family member dies without prior planning, including conflict over property, unpaid debts, or other financial hardships (30).

PALLIATIVE CARE IN NIGERIA

Despite these challenges, the majority of healthcare workers agree that patients should be informed about prognosis and that withholding information during end-of-life planning can erode trust (45,70). Nurses' and physicians' perceptions of a "good death" emphasize clear communication, preparation for dying, and pain control (46).

Both providers and patients agree telecommunication technologies like mobile phones can be used to facilitate prognostic conversations, but technical infrastructural limitations like bandwidth, network coverage, and stable power supply, still hinder broader adoption of digital tools (57,67).

Physical Environment

Environmental design in palliative care, defined as the physical, sensory, and social aspects of the spaces in which a person receives care, is known to improve care outcomes, patient satisfaction, and continuation of service uptake (36). However, in Nigeria, palliative care services are usually delivered in the inpatient setting, an environment that is often noisy and crowded (36,64). Bad news and other sensitive conversations can oftentimes be at the bedside (36). In Nigeria, healthcare providers find that overcrowding, inadequate ventilation, and the absence of private areas limit their ability to deliver optimal palliative care services, emphasizing the importance of infrastructure such as dedicated palliative wards and private areas (36).

Pain Management

Pain is a common and debilitating symptom among patients with life-limiting or life-threatening illness or injury. It is often underdiagnosed and undertreated in LMICs. In Nigeria, the capacity to treat pain is limited and mostly consists of over-the-counter analgesics or no treatment at all (44,63). Low rates of routine pain assessment, perceived opioid toxicity, and lack of access to opioids contribute to Nigeria's limited pain treatment capacity (38,63). Another significant contributing factor identified is a knowledge gap among

PALLIATIVE CARE IN NIGERIA

healthcare providers (38,63). There are misconceptions held by healthcare workers such as equating palliative care to only pain management, that highlight the need for broader palliative care education (46). There can also be a fear of serious drug side effects on the part of the provider, decreasing the likelihood of them prescribing pain medication (63).

Certain groups, such as patients who use recreational drugs, often encounter stigma in clinical settings increasing their likelihood of using traditional medicines as alternatives for pain management, sometimes with adverse effects (56). The absence of formal regulation of ethnomedical therapies has also been cited as a barrier to safe pain management (55).

Thematic Pillars

Implementation

Palliative care was first introduced in Nigeria in 1993, however dedicated palliative care units were not established until over a decade later (12,14). The availability of palliative care services has since expanded following the inauguration of the Hospice and Palliative Care Association of Nigeria (HPCAN) in 2007 (12). The organization has played a critical role in advocating for the expansion of resources, beginning with a call to institute palliative care units in all tertiary care centers in Nigeria (12). As of 2022, there were 10 active palliative care programs throughout the country, half of which also offer pediatric services (73).

Palliative care is most commonly implemented as a combination of outpatient and inpatient services, either as consultants or a hospice care unit (12,14). The core membership of palliative care teams includes doctors and nurses while additional members such as social workers, pharmacists, clergy, physiotherapists, dieticians, mental health counselors, and health educators are variable (14,76). Nurses and physiotherapists are responsible for managing end-of-life symptoms and functional mobility (78,80). Psychosocial

PALLIATIVE CARE IN NIGERIA

counselling, patient and caregiver education, and resource allocation are increasingly recognized as essential palliative care services fulfilled by social workers and spiritual leaders (79,80).

Home-based palliative care is an effective delivery model which aligns with cultural preferences of the community (80). This was first formalized in 2006 by volunteers of the Center for Palliative Care, Nigeria (14). The following year this was professionalized as a pilot program at University College Hospital among patients with end-stage care and demonstrated widespread patient and family appreciation across the spectrum of care (14). Home-based pain management, psychosocial counselling, and caregiver education reduces physical and emotional burdens associated with end-of-life care (14,72). However, this model remains rare due to limited staffing, lack of institutional and logistical support, and gaps in policy (53).

Although palliative care services in Nigeria predominantly target patients with cancer, there is a broader need among all patients with life-limiting illnesses in Nigeria (77). This includes patients living with HIV/AIDS, organ failure, hemoglobinopathies, trauma, or stroke (76,77,80). In health facilities where there is dedicated palliative care staff, overall infrastructure was found to be inadequate due to insufficient staffing and funding (12,76). Organizational barriers to effective practice models include a lack of institution-wide policies guiding palliative care delivery and poor referral pathways (35,54).

Medicine Availability

Adequate pain management is a mainstay of palliative care services yet remains a challenge for existing programs in Nigeria (7,14,74). Barriers to achieving adequate pain control include low supply availability, lack of governmental or institutional policy to guide prescribing practices, and delayed referral to palliative care (68,74). Although opiates are part of the World Health Organization analgesics ladder and on the national essential drug list, availability remains sparse (76). Furthermore, lack of or delayed referral to palliative care specialists leads to insufficient opioid prescribing practices and prolonged patient suffering (74).

PALLIATIVE CARE IN NIGERIA

Several recommendations to improve access to safe, equitable, and culturally-appropriate pain management services have been proposed. They include formal training on pain and analgesic as part of medical education, and institutional pain assessment protocols and prescription guidelines (38,48,55,63). In one study, a two-day lecture course aimed to improve healthcare provider pain management knowledge led to an increase in institutional morphine utilization (68).

Education

Widespread implementation is further hampered by inadequate workforce training, which is linked to decreased provider confidence and decreased likelihood of referring patients to palliative care specialists (29,37,65). The majority of interventional studies identified in this review aim to address this gap through education initiatives targeted to doctors and nurses (20,69,70).

A significant increase in knowledge domains among providers occurred across a variety of session formats, duration, and targeted trainee level (20,69,70). Healthcare providers occupy a dual role of student and teacher, and, when acting as the latter, increase patient and caregiver preparedness to provide palliative care (73). Beyond doctors and nurses, other members of palliative care teams, such as social workers, also require formal training to navigate the challenges of medical communication, psychosocial counseling, and complex social-cultural beliefs about end-of-life care and death (79).

Policy

Prior to 2021, Nigeria did not have a national policy governing palliative care, compared to other African countries such as Uganda, Kenya, Zimbabwe, South Africa, Cote d'Ivoire, Rwanda, and Tanzania who had integrated palliative care into broader government healthcare policies (7). A national strategic plan mobilizes resources to support implementation, education, and medicine availability (80). In particular, a reliance on external funding and lack of palliative care coverage in the National Health Insurance Scheme

PALLIATIVE CARE IN NIGERIA

places significant financial constraints on healthcare institutions and patients (7,78). In some instances, healthcare providers have used their own money to pay for patients' palliative care treatment (74). (Although Nigeria released a National Policy and Strategic Plan for Hospice and Palliative care in 2021, none of the studies in this scoping review referenced or evaluated its implications. The relevance of this policy will be further explored in the discussion).

Vitality

The Hospice and Palliative Care Association of Nigeria was established in 2007 to connect professionals and advocate for the expansion of palliative care services (12). However palliative care services are not recognized as a sub-specialty in Nigeria, which limits opportunities for formalized training or continuing medical education (12). This lack of professional validation acts as a compounding barrier to program initiation, implementation, and expansion. Furthermore, there are unique ethical and emotional challenges encountered by palliative care professionals who could benefit from structured debriefing sessions to mitigate burnout (33,78,79).

Discussion

This scoping review demonstrates an extensive study of Nigerian knowledge, attitudes, and practices of palliative care across multiple domains and stakeholder populations; however, literature supporting effective palliative care implementation remains limited.

The majority of studies were cross-sectional and qualitative designs and reflects a field that is still in the nascent stages of evidence generation, where descriptive and exploratory methods are needed to guide understanding of palliative care service gaps. The low number of interventional or experimental studies indicates a need for more rigorous evaluation of palliative care models in Nigeria and their effectiveness. The geographic distribution of studies illustrates a regional imbalance.

PALLIATIVE CARE IN NIGERIA

Most studies are concentrated in the southwest and southeast. The limited number of studies from the northwest and north central and the absence of studies from the northeast indicates a gap in geographic representation raising concerns about how well the current evidence being generated reflects national palliative care needs.

Implications for Policy, Practice, and Research

This scoping review was strongly needed to identify the gaps in palliative care delivery given emerging evidence of a widening global disparity in palliative care need and capacity, particularly across Africa. It contributes to a greater understanding of the needs of patients, caregivers, and healthcare professionals, informing future research to develop innovative, context-sensitive approaches to palliative care in Nigeria.

Policy and Health System Implications

To date, no systematic appraisals of palliative care literature in Nigeria have been published. Prior reviews of palliative care in Africa have identified similar findings to those presented here (4,7). Continent-wide barriers to palliative care services are also seen in Nigeria, namely limited knowledge of palliative care among healthcare providers, patients, and caregivers, low medicine availability, unsatisfactory end-of-life communication, inadequate training, and a lack of governmental policy and funding (4,7,25). Little progress in Nigeria has been made to effectively address these barriers through evidence-based interventions, inciting new urgency to strengthen palliative care efforts.

In 2025, Nigeria was characterized as ‘progressing’ in the global classification of palliative care development according to World Health Organization indicators (81). This signifies the initiation of palliative care development, but initiatives are inconsistent and isolated in their implementation (88).

PALLIATIVE CARE IN NIGERIA

Compared to African counterparts, Nigeria was ranked ninth, behind Uganda, South Africa, Malawi, Kenya, and Rwanda who earned an ‘established’ status (81).

External progress in palliative care efforts have been stymied by a lack of effective implementation. Most recent evidence demonstrates an increase in public and private palliative care units throughout the country, with an additional five institutions established as of 2023 (16). Despite the increase in quantity, the quality of palliative care delivery continues to face significant challenges. There is lack of physical space for treatment and consultation, technology for appointment scheduling, and high patient to staff ratios (21). Achieving expanded access to palliative care services will require coordinated, multi-level interventions across community, hospital, academic, and governmental sectors.

A 2024 World Innovation Summit for Health (WISH) and World Health Organization report on global palliative care progress proposes multi-level interventions, to address measures for effective implementation as well as quality monitoring systems for sustained accountability (82). Based on our findings and in light of the Harding et al. report, we provide aligned recommendations to be considered in improving palliative care access in low-resource settings globally (Table 3).

Bold strategies in national policies to establish a hospice unit in every oncology facility and integrate palliative care education into health professional education have fallen short (15). Federal policy that is focused on increasing access to palliative care services through workforce training, research, and locally-informed, public education initiatives is required. Such policies would help guide national priorities and standardize services across Nigeria. It could also mobilize resources, such as pain medications, ensuring that treatment is more accessible, affordable, and aligned with international best practices. Of course, dedicated funding mechanisms to support federal policy are essential. While inclusion of palliative care within the National Health Insurance Scheme to improve affordability and access is a start, given that less

PALLIATIVE CARE IN NIGERIA

than 5% of Nigerians are enrolled in the National Health Insurance Scheme and most rely on out-of-pocket payments, alternative financing strategies that are feasible and equitable are needed (83).

Clinical and Educational Implications

The implementation of institution-wide protocols is also needed to reduce variability in practice and improve patient outcomes at the facility level. Institution-wide protocols should include the establishment of clear referral pathways to improve early identification of patients who would benefit from palliative care, routine pain assessments with validated tools such as the World Health Organization's Pain Ladder or the Edmonton Symptom Assessment Scale, opioid stewardship programs that promote safe prescribing practices, and structured, multidisciplinary family meetings to aid with end-of-life planning.

Beyond institutional programs, public-health-oriented approaches to palliative care services delivery is necessary to broaden community engagement. Home-based palliative care delivery was the primary method of community engagement linked to Nigerian hospital-based programs (14). While this was shown to be effective, there is opportunity to enhance such programs. In South Africa, community health workers were incorporated into home-based palliative care programs to provide caregiver education, medication management, and culturally-appropriate care (84). The utility of public-health strategies to guide end-of-life discussions, improve palliative care awareness, dispel misconceptions, facilitate care referral, and support medical access are under-studied components which warrant future attention.

The recognition of palliative care as a sub-specialty has profound implications for capacity building and implementation. Key indicators to evaluate the progress of palliative care development in Africa are recognition as a sub-specialty and integration in undergraduate medical curriculum (85). Realization of these standards is yet to be achieved, but is supported by advocacy efforts from the Association for Palliative Care in Africa (86).

PALLIATIVE CARE IN NIGERIA

Education about the role of palliative care services as early as undergraduate medical training supports an unique understanding of the importance of palliative care multidisciplinary team members and supports application of palliative care concepts across all future specialties (87). Kenya, South Africa, and Uganda are leaders in palliative care education development in Africa, going so far as to certify it as a testable subject in South Africa and Uganda (88). Multiple African countries incorporate palliative care into undergraduate medical and nursing curricula; however the details and sustainability of these programs is unknown (4). Universal healthcare provider education in palliative care not limited to the specialists is needed to facilitate enhanced referral pathways (74).

The education interventions reviewed in this study lacked clinic-based learning and continuing professional education varied widely among palliative care teams. This gap is critical to address because knowledge transferred effectively among healthcare workers within each institution is necessary to sustainably maintain an educated workforce and ensure program longevity.

Professional certification in palliative care services for multiple professionals and disciplines can ensure consistent quality of care among specialists. Certification has been validated in correlation with standardized test scores and clinical performance (89). In Europe, palliative medication is increasingly recognized as a specialty or sub-specialty through formalized certification programs, leading towards an ultimate mandate of certification prior to clinical practice (90,91). At this time, a certification is not required to practice palliative care in any African country (4, 86).

Professional validation also supports national organization among these specialists which can support collaborations for the advancement of the field both clinically and academically (92). Collaboration further strengthens advocacy efforts to demand governmental support for essential resources (93). The Hospice and Palliative Care Association of Nigeria has made instrumental progress in advocating for palliative care

PALLIATIVE CARE IN NIGERIA

access and health professional training through public and private partnerships (16). As the demand for palliative care services continues to rise, professional organization of palliative care across Africa is critical.

Research Priorities and Evidence Gaps

This review highlights future priorities to advance research development in palliative care. Existing evidence was dominated by observational studies, with few interventional studies and only one randomized controlled trial. Notably, no studies specifically examined community engagement or public-health-oriented palliative care, despite the importance of these delivery methods in low-resource environments. This requires a deliberate shift toward interventional-focused research to test strategies which address gaps identified through observational work. As implementation of palliative care services expands to improve care delivery, medication availability, and education, high-quality research to evaluate program effectiveness and guide iterative improvements is critical.

Strengths and Limitations

Included databases were searched from inception and some findings may no longer be accurate in light of recent advancements. All efforts were made to delineate these discrepancies within the context of more recent studies. As this was the first scoping review dedicated to palliative care in Nigeria, the intent was to capture all existing peer-reviewed literature on the topic. Grey literature, abstracts, editorials, conference proceedings, articles submitted but not accepted for publication, non-English publications were excluded. The exclusion of these diversified studies narrows the comprehensiveness of the search, but was implemented to support quality control of the reported results. Furthermore, it is recognized that all activities related to palliative care implementation, interventions, or policy may not be reported or published in peer-reviewed journals due to limitations in regional research capacity. Additional systematic reviews in the future would be beneficial to identify progress in palliative care research and delivery.

Conclusion

PALLIATIVE CARE IN NIGERIA

This scoping review provides a comprehensive look at palliative care in Nigeria, identifying the knowledge, attitudes, and practices among patients, caregivers, and health professionals and a thematic analysis of the pillars of palliative care services. Findings demonstrate a limited awareness of palliative care, poor pain management, little to no end-of-life planning, cultural norms that shape end-of-life communication, and the absence of national policy and institutional protocols to aid with delivery of care.

Yet, despite these limitations, there remains a strong interest in improving palliative care services delivery in Nigeria. This scoping review points to several necessary factors. At the individual and institutional level, provider training and implementing institution-wide protocols that include early identification of patients, routine pain assessment, and structured referral pathways are needed. At the state and federal level, policies that support palliative care are needed to guide national priorities, mobilize resources, and ensure equitable access to essential medicines and services. Demonstrable and measurable change is urgently needed to guarantee that all Nigerians with life-limiting illness receive dignified, consistent, and humanizing care that relieves suffering and improves quality of life.

Conflict of Interest statement:

MJA is a member of the British Psychological Society, Faculty for Oncology and Palliative Care (SIGOPAC) Committee. KSM is the Editor in Chief of The Journal for Nurse Practitioners and serves as an unpaid board member

Source of Funding: All authors based at MSK acknowledge the NCI/NIH Comprehensive Cancer Center award P30 CA008748. WER is partially supported by the Robert Wood Johnson Foundation Harold Amos Medical Faculty Development Program. MJA receives research grant funding supported by UK Research and Innovation (UKRI) and Yorkshire Cancer Research.

PALLIATIVE CARE IN NIGERIA

References

Knaul FM, Arreola-Ornelas H, Kwete XJ, Bhadelia A, Rosa WE, Touchton M, et al. The evolution of serious health-related suffering from 1990 to 2021: an update to The Lancet Commission on global access to palliative care and pain relief. *Lancet Glob Health*. 2025 Mar;13(3):e422–36.

2. Sleeman KE, de Brito M, Etkind S, Nkhoma K, Guo P, Higginson IJ, et al. The escalating global burden of serious health-related suffering: projections to 2060 by world regions, age groups, and health conditions. *Lancet Glob Health*. 2019 July;7(7):e883–92.

3. Strengthening of palliative care as a component of comprehensive care throughout the life course. Sixty-Seventh World Health Assembly: World Health Organization; 2014 May p. 1–5. Report No.: Agenda item 15.5.

4. Rhee JY, Garralda E, Torrado C, Blanco S, Ayala I, Namisango E, et al. Palliative care in Africa: a scoping review from 2005–16. *Lancet Oncol*. 2017 Sept;18(9):e522–31.

5. Harding R, Selman L, Powell RA, Namisango E, Downing J, Merriman A, et al. Research into palliative care in sub-Saharan Africa. *Lancet Oncol*. 2013 Apr;14(4):e183–188.

6. Hannon B, Zimmermann C, Knaul FM, Powell RA, Mwangi-Powell FN, Rodin G. Provision of Palliative Care in Low- and Middle-Income Countries: Overcoming Obstacles for Effective Treatment Delivery. *J Clin Oncol Off J Am Soc Clin Oncol*. 2016 Jan 1;34(1):62–8.

7. Agom DA, Onyeka TC, Iheanacho PN, Ominyi J. Barriers to the Provision and Utilization of Palliative Care in Africa: A Rapid Scoping Review. *Indian J Palliat Care*. 2021;27(1):3–17.

8. Global Atlas of Palliative Care (2nd edition) - PAHO/WHO | Pan American Health Organization [Internet]. 2020 [cited 2025 Aug 4]. Available from: <https://www.paho.org/en/node/75063>

9. Knaul FM, Farmer PE, Krakauer EL, Lima LD, Bhadelia A, Kwete XJ, et al. Alleviating the access abyss in palliative care and pain relief—an imperative of universal health coverage: the Lancet Commission report. *The Lancet*. 2018 Apr 7;391(10128):1391–454.

10. Connor SR, Garralda E, Tripodoro VA, Centeno C. Estimating the Number of Services & Patients Receiving Specialized Palliative Care Globally in 2025. *J Pain Symptom Manage*. 2025 July 28;S0885-3924(25)00740-7.

11. Oliver D, Olupitan D, Oyebola F. Developing palliative care in Nigeria - a collaborative approach. *Eur J Palliat Care*. 18(6):298–301.

12. Ndukwu GU, Olamuyiwa TE, Eke GK. The Practice of Palliative Care Medicine in the Developing World: A Review of the Challenges in Providing Palliative Care Services in South-South Nigeria. *Niger Health J*. 2021 Mar 31;21(1):1–10.

13. Pain and Palliative Medicine - Federal Medical Centre, Abeokuta [Internet]. 2023 [cited 2025 Sept 10]. Available from: <https://www.fmcabeokuta.net/pain-and-palliative-medicine/>

14. Omoyeni N, Soyannwo O, Aikomo O, Iken O. Home-based palliative care for adult cancer patients in Ibadan-a three year review. *Ecancermedicalscience*. 2014;8:490.

PALLIATIVE CARE IN NIGERIA

15. Nigeria National Cancer Control Plan [Internet]. 2018 2022 p. 22–4. Available from: [https://www.iccp-portal.org/sites/default/files/plans/NCCP_Final%20\[1\].pdf](https://www.iccp-portal.org/sites/default/files/plans/NCCP_Final%20[1].pdf)
16. Olasinde T, Onyeka T, Adenipekun A, Otene S, Kajang V, Soyannwo O. Decoding the palliative care landscape in Nigeria: Progress, challenges, and the road ahead. *Palliat Support Care*. 2025 Jan;23:e123.
17. Obiezu-Umeh C, Ogbenna AA, Johnson LS, Caputo MT, Hirschhorn LR, Onyeka TC, et al. Barriers and facilitators to the implementation of palliative care services at five tertiary hospitals in Nigeria: a qualitative formative study. *BMC Health Serv Res*. 2025 July 23;25(1):970.
18. National Policy for Controlled Medicines and Its Implementation Strategies [Internet]. Federal Ministry of Health, Nigeria; 2017. Available from: https://www.unodc.org/conig/uploads/documents/Approved_National_Policy_For_Controlled_Medicines_And_Its_Implementation_Strategies.pdf
19. Tolulope EB, Buchanan D. Palliative Care Education in Nigerian Medical Schools Curriculum: Impact on Newly Qualified Doctors' Knowledge. *J Pain Symptom Manage*. 2024 May 1;67(5):e612–3.
20. Ogbenna A, Drane D, Crowe AN, Oyedele O, Hauser J, Soyannwo O, et al. Building the Nigerian Palliative Care Workforce: An Interdisciplinary Distance Learning Training Program. *Ann Glob Health*. 2022;88(1):96.
21. Ogbenna AA, Caputo M, Onyeka TC, Ohanete DO, Johnson LS, Sam-Agudu NA, et al. Organizational models and patient-reported outcomes for palliative care across five tertiary hospitals in Nigeria: An environmental scan. *PLOS Glob Public Health*. 2025 June 4;5(6):e0004638.
22. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol*. 2005 Feb 1;8(1):19–32.
23. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med*. 2018 Oct 2;169(7):467–73.
24. Stjernswärd J, Foley KM, Ferris FD. The public health strategy for palliative care. *J Pain Symptom Manage*. 2007 May;33(5):486–93.
25. Palumbo N, Tilly A, Nambisan E, Ntizimira C, Thambo L, Chikasema M, et al. Palliative care in Malawi: a scoping review. *BMC Palliat Care*. 2023 Oct 4;22(1):146.
26. Adamolekun K. Openness of health professionals about death and terminal illness in a Nigerian teaching hospital. *Omega*. 1997 1998;36(1):23–32.
27. Adenipekun A, Onibokun A, Elumelu TN, Soyannwo OA. Knowledge and attitudes of terminally ill patients and their family to palliative care and hospice services in Nigeria. *Niger J Clin Pract*. 2005 June;8(1):19–22.

PALLIATIVE CARE IN NIGERIA

28. Adisa R, Anifowose AT. Pharmacists' knowledge, attitude and involvement in palliative care in selected tertiary hospitals in southwestern Nigeria. *BMC Palliat Care*. 2019 Nov 29;18(1):107.
29. Afolabi OA, Nkhoma K, Soyannwo O, Aje A, Ogunniyi A, Harding R, et al. Integrated Primary Palliative Care in Nigeria- Perspectives of Patients, Families and Providers. *J Pain Symptom Manage*. 2022 Oct;64(4):319–29.
30. Agbawodikeizu UP, Agwu PC. Controversies in preparing for end-of-life in Nsukka town of Nigeria and suggestions for Nigerian based social work practice. *Soc Work Soc Sci Rev* [Internet]. 2019 [cited 2025 Apr 16]; Available from: <https://journals.whitingbirch.net/index.php/SWSSR/article/view/1140>
31. Agbawodikeizu PO, Agwu PC, Okoye UO, Oyeoku EK. Perception and attitudes to end of life planning and implications for social work practice in Enugu State, Nigeria. *Int Soc Work*. 2019 Mar 1;62(2):892–904.
32. Agha AA, Onalu C, Chidebe R. Bridging the Gap: Investigating the Role of Social Workers in Supporting Metastatic Breast Cancer Patients in Nigeria. *Soc Work Public Health*. 2022 Apr 3;37(3):244–57.
33. Agom DA, Poole H, Allen S, Onyeka TC, Ominyi J. Understanding the Organization of Hospital-Based Palliative Care in a Nigerian Hospital: An Ethnographic Study. *Indian J Palliat Care*. 2019 June;25(2):218–23.
34. Agom DA, Allen S, Neill S, Sixsmith J, Poole H, Onyeka TC, et al. Social and Health System Complexities Impacting on Decision-Making for Utilization of Oncology and Palliative Care in an African Context: A Qualitative Study. *J Palliat Care*. 2020 July;35(3):185–91.
35. Agom DA, Onyeka TC, Ominyi J, Sixsmith J, Neill S, Allen S, et al. An Ethnographic Study of Palliative and End-of-Life Care in a Nigerian Hospital: Impact of Education on Care Provision and Utilization. *SAGE Open*. 2020 July 1;10(3):2158244020938700.
36. Agom DA, Sixsmith J, Ominyi J, Onyeka TC, Agom JC. Placing Care: The Impact of the Physical Environment on Experiences of Providing and Utilizing Palliative Care. *J Nurs Res JNR*. 2022 Oct 1;30(5):e237.
37. Ajisegiri WS, Abubakar AA, Gobir AA, Balogun MS, Sabitu K. Palliative care for people living with HIV/AIDS: Factors influencing healthcare workers' knowledge, attitude and practice in public health facilities, Abuja, Nigeria. *PLoS One*. 2019;14(12):e0207499.
38. Ayodapo AO, Amoko A, Fashola AM, Deji-Dada OO, Ayodapo EO, Omoyajowo AC, et al. Knowledge of morphine use in the management of pain in cancer patients among physicians in a resource-constraint setting. *Palliat Med Pract*. 2021;15(1):28–34.
39. Badru AI, Kanmodi KK. Palliative care awareness amongst religious leaders and seminarians: a Nigerian study. *Pan Afr Med J*. 2017;28:259.
40. Cadmus EO, Adebayo LA, Olowookere OO, Olusegun AT, Oyinlola O, Adeleke RO, et al. Older persons' perceptions about advanced directives and end of life issues in a geriatric care setting in Southwestern Nigeria. *Pan Afr Med J*. 2019;32:64.

PALLIATIVE CARE IN NIGERIA

41. Cadmus EO, Oyinlola O, Obadare A, Adebuseye LA, Mahmoud K. Knowledge and perception of older adults toward end of life and advanced directive in Nigeria. *Palliat Support Care*. 2024 Nov 12;23:e3.
42. Doobay-Persaud A, Solchanyk D, Fleming O, Patel N, Drane D, Hauser J, et al. Palliative Care Challenges in Nigeria: A qualitative study of interprofessional perceptions. *J Pain Symptom Manage*. 2023 Jan;65(1):e1–5.
43. Eleke C, Azuonwu G, Agu IS, Nnorom RM, Ogini AN, Eleke-Bempog E, et al. Knowledge of palliative care among professional nurses in south east Nigeria: A needs assessment for continuing education. *Int J Afr Nurs Sci*. 2020 Jan 1;13:100237.
44. Ettah O, Edoho I, Kalu Q. Prevalence of pain among adult patients living with HIV in Uyo, South-South, Nigeria. *Ibom Med J*. 2023 Jan 1;16(1):51–5.
45. Fadare JO, Obimakinde AM, Afolayan JM, Popoola SO, Aduloju T, Adegun PT. Healthcare workers knowledge and attitude toward palliative care in an emerging tertiary centre in South-west Nigeria. *Indian J Palliat Care*. 2014 Jan;20(1):1–5.
46. Fadare J, Obimakinde A, Olaogun D, Afolayan J, Olatunya O, Ogundipe K. Perception of Nurses about Palliative Care: Experience from South-West Nigeria. *Ann Med Health Sci Res*. 2014 Sept;4(5):723–7.
47. Faronbi JO, Akinyoola O, Faronbi GO, Bello CB, Kuteyi F, Olabisi IO. Nurses' Attitude Toward Caring for Dying Patients in a Nigerian Teaching Hospital. *SAGE Open Nurs*. 2021;7:23779608211005213.
48. Hantsi İ, Yılmaz ÜD. Determining Pain Assessment and Management Practices of Surgical and Critical Care Nurses. *Mediterr Nurs Midwifery* [Internet]. 2022 [cited 2025 Apr 15]; Available from: <https://mediterr-nm.org/articles/determining-pain-assessment-and-management-practices-of-surgical-and-critical-care-nurses/doi/MNM.2022.22006>
49. Idemili-Aronu N, Onyeka TC, Okenwa UJ, Jemisenia JO, Okoli IA, Olawepo JO, et al. Knowledge, attitudes, and barriers: Palliative Care services for women with HIV in resource-limited settings. *BMC Palliat Care*. 2024 Sept 17;23(1):227.
50. Ingwu JA, Nwaiku L, Ohaeri B. Knowledge and practice of end-of-life care among nurses in a teaching hospital in Nigeria. *Int J Palliat Nurs*. 2016 Apr 2;22(4):194–9.
51. Jegede AS, Adegoke OO. Advance Directive in End of Life Decision-Making among the Yoruba of South-Western Nigeria. *BEOnline J West Afr Bioeth Train Program*. 2016 Nov;3(3):41–67.
52. Ndiok A, Ncama B. Assessment of palliative care needs of patients/families living with cancer in a developing country. *Scand J Caring Sci*. 2018 Sept;32(3):1215–26.
53. Ndiok A, Ncama B. A qualitative study of home visiting as a palliative care strategy to follow-up cancer patients by nurses in clinical setting in a developing country. *Scand J Caring Sci*. 2019 Mar;33(1):185–96.

PALLIATIVE CARE IN NIGERIA

54. Ndiok A, Ncama B. Barriers and benefits of model development for integration of palliative care for cancer patients in a developing country: A qualitative study. *Int J Nurs Pract.* 2021 June;27(3):e12884.
55. Nelson EU. Drug consumption stigma and patient legitimacy: experiences of people who use drugs seeking care for chronic non-cancer pain in Nigeria. *Health Sociol Rev J Health Sect Aust Sociol Assoc.* 2024 Nov 4;1–15.
56. Nelson EU. Health-seeking dynamics and uptake of ethnomedical therapies for chronic pain among people who use drugs in Nigeria. *Discov Soc Sci Health.* 2024 Oct 18;4(1):52.
57. Nwagwu WE, Adegunwa GO, Soyannwo OA. ICT and collaborative management of terminal cancer patients at the University College Hospital, Ibadan, Nigeria. *Health Technol.* 2013;3:309–25.
58. Nwankwo KC, Anarado AN, Ezeome ER. Attitudes of cancer patients in a university teaching hospital in southeast Nigeria on disclosure of cancer information. *Psychooncology.* 2013 Aug;22(8):1829–33.
59. Nwodoh CO, Okoronkwo IL, Nwaneri AC, Ndubuisi I, Ani GJ, Dyages EO. Terminally ill patients' perception on healthcare providers' communication of prognostic information: A qualitative study from Nigeria, West Africa. Schumacher U, editor. *Cogent Med.* 2018 Jan 1;5(1):1457232.
60. Nwodoh CO, Okoronkwo IL, Nwaneri AC, Ndubuisi I, Chinweuba AU, Iheanacho P. Terminally-ill patients' prognosis information preferences in an African setting: A qualitative descriptive study. *Int J Afr Nurs Sci.* 2020 Jan 1;13:100220.
61. Nwozichi CU. Toward A Germinal Theory of Knowing- Revealing-Humanizing as Expressions of Caring in Cancer Palliative Care. *Asia-Pac J Oncol Nurs.* 2019;6(3):269–76.
62. Odetunde MO, Nwankwo JC, Owojuigbe AM, Aaron OI, Okonji AM. Knowledge and Attitude Towards Palliative Care Among Clinical Undergraduate Students of Physiotherapy in Nigerian Universities: A Cross-Sectional Study. *bioRxiv.* 2022 Jan 1;2022.06.12.495785.
63. Ogboli-Nwasor E, Makama J, Yusufu L. Evaluation of knowledge of cancer pain management among medical practitioners in a low-resource setting. *J Pain Res.* 2013;6:71–7.
64. Ojedoyin O, Jegede A. A quantitative study of nurses perception to advance directive in selected private and public secondary healthcare facilities in Ibadan, Nigeria. *BMC Med Ethics [Internet].* 2022 Aug 25 [cited 2025 Apr 15];23(1). Available from: <https://pubmed.ncbi.nlm.nih.gov/36008832/>
65. Oji N, Onyeka T, Soyannwo O, Paal P, Elsner F. Perspectives, perceived self-efficacy, and preparedness of newly qualified physicians' in practising palliative care-a qualitative study. *BMC Palliat Care.* 2022 Aug 4;21(1):141.
66. Okpala PU, Obeagu EI, Agunwah L, Eze C, Ogwa EI, Agu CC. Nurses Perception towards the Care of Patients with Terminal Illness in University of Nigeria Teaching Hospital, Enugu State, Nigeria. *J Pharm Res Int.* 2021 June 17;38–47.

PALLIATIVE CARE IN NIGERIA

67. van Gurp J, Soyannwo O, Odebutunmi K, Dania S, van Selm M, van Leeuwen E, et al. Telemedicine's Potential to Support Good Dying in Nigeria: A Qualitative Study. *PloS One*. 2015;10(6):e0126820.
68. Adenekan AT, Owojuigbe AM, Aaron OI, Adetoye AO, Olorunmoteni OE, Owojuigbe T, et al. Impact of Pain Management Workshop on the Knowledge and Attitude of Healthcare Workers and Opioid Utilization in a Nigerian Teaching Hospital. *West Afr J Med*. 2019;36(3):232–8.
69. Jack EN, Ingwu JA, Onorikpori TO, Ezekiel R, Amachree DM, Pius VT. Effect of Palliative Care Education on Nurses' Knowledge of Palliative Care among Hospital-Based Nurses in Tertiary Hospital, Rivers State. *Afr J Biomed Res*. 2023;26(3):363–8.
70. Nnadi DC, Singh S. Knowledge of Palliative Care Among Medical Interns in a Tertiary Health Institution in Northwestern Nigeria. *Indian J Palliat Care*. 2016;22(3):343–7.
71. Ogbenna A, Caputo M, Akodu B, Drane D, Ohanete D, Doobay-Persaud A, et al. Online palliative care curriculum: contextual adaptation for Nigerian healthcare workers. *BMJ Support Palliat Care*. 2024 Dec 19;14(e3):e2937–43.
72. Onyechi KCN, Onuigbo LN, Eseadi C, Ikechukwu-Ilomuanya AB, Nwaubani OO, Umoke PCI, et al. Effects of Rational-Emotive Hospice Care Therapy on Problematic Assumptions, Death Anxiety, and Psychological Distress in a Sample of Cancer Patients and Their Family Caregivers in Nigeria. *Int J Environ Res Public Health*. 2016 Sept 20;13(9):929.
73. Onyeka TC, Emodi I, Mohammed AD, Ofakunrin AO, Alabi A, Onu JU, et al. In-hospital psychoeducation for family caregivers of Nigerian children with cancer (The RESCUE Study). *Palliat Support Care*. 2024 Mar 14;1–12.
74. Agom DA, Ominyi J, Onyeka TC, Anyigor CN. Exploring Organizational Culture Regarding Provision and Utilization of Palliative Care in a Nigerian Context: An Interpretive Descriptive Study. *Indian J Palliat Care*. 2020;26(3):358–64.
75. Agom DA, Neill S, Allen S, Poole H, Sixsmith J, Onyeka TC, et al. Construction of meanings during life-limiting illnesses and its impacts on palliative care: Ethnographic study in an African context. *Psychooncology*. 2019 Nov;28(11):2201–9.
76. Ajisegiri WS, Abubakar AA, Egwuenu A, Balogun MS, Adedire E, Sabitu K. Beyond drug treatment: a cross-sectional assessment of palliative care services for people living with HIV/AIDS at public health facilities, Abuja, Nigeria. *Pan Afr Med J*. 2021;39:24.
77. Akodu B, Olokodana-Adesalu O, Ojikutu M, Ogbenna A, Agunbiade T, Nwosa N, et al. Pattern of admissions and needs assessment for palliative care services among in-patients in a tertiary health facility in South-Western Nigeria. *BMC Palliat Care*. 2024 Aug 19;23(1):210.
78. Chigbo NN, Ezeome ER, Onyeka TC, Amah CC. Ethics of physiotherapy practice in terminally ill patients in a developing country, Nigeria. *Niger J Clin Pract*. 2015 Dec;18 Suppl:S40-45.
79. Uche O, Uche I, Onwe N. Palliative Social Work Services for Cancer Patients in Southeast Nigeria: An Exploration. *J Soc Serv Res*. 2025 Jan 2;51(1):42–56.

PALLIATIVE CARE IN NIGERIA

80. Ogunkorode A. Global Perspectives on Palliative Care: Nigerian Context. In: Holtslander L, Peacock S, Bally J, editors. *Hospice Palliative Home Care and Bereavement Support: Nursing Interventions and Supportive Care* [Internet]. Cham: Springer International Publishing; 2019. p. 35–44. Available from: https://doi.org/10.1007/978-3-030-19535-9_3
81. Tripodoro VA, Fidalgo JFL, Pons JJ, Connor SR, Garralda E, Bastos F, et al. First-ever global ranking of palliative care: 2025 World Map under the new WHO framework. *J Pain Symptom Manage* [Internet]. 2025 Aug 7 [cited 2025 Sept 2];0(0). Available from: [https://www.jpsmjournal.com/article/S0885-3924\(25\)00748-1/fulltext](https://www.jpsmjournal.com/article/S0885-3924(25)00748-1/fulltext)
82. Harding R, Hammerich A, Peeler A, Afolabi O, Sleeman K, Thompson D, et al. Palliative Care: How Can We Respond to 10 Years of Limited Progress? [Internet]. World Innovation Summit for Health (WISH); 2024 Nov [cited 2025 Sept 2] p. 19–34. Available from: <https://wish.org.qa/research-report/palliative-care/>
83. Alawode GO, Adewole DA. Assessment of the design and implementation challenges of the National Health Insurance Scheme in Nigeria: a qualitative study among sub-national level actors, healthcare and insurance providers. *BMC Public Health*. 2021 Jan 11;21(1):124.
84. Campbell, C., Ramakuela, J., Dennis, D., & Soba, K. (2021). Palliative Care Practices in a Rural Community: Cultural Context and the Role of Community Health Worker. *Journal of Health Care for the Poor and Underserved*, 32(1), 550–564. <https://doi.org/10.1353/hpu.2021.0040>
85. Rhee JY, Garralda E, Namisango E, Luyirika E, de Lima L, Powell RA, et al. Developing Macroindicators of Palliative Care Development in Africa: A Process with In-Country and International Experts. *J Palliat Med*. 2018 Mar;21(3):342–53.
86. About APCA | African Palliative Care Association [Internet]. [cited 2025 Aug 4]. Available from: <https://www.africanpalliativecare.org/about-apca>
87. Soliman AA, Olenik JM, Sagin A, Durkin B. Qualitative Study of Preclinical Medical Student Reflections on Required Palliative Care Experience. *J Pain Symptom Manage*. 2025 Sept 1;70(3):287–294.e2.
88. Rawlinson F, Gwyther L, Kiyange F, Luyirika E, Meiring M, Downing J. The current situation in education and training of health-care professionals across Africa to optimise the delivery of palliative care for cancer patients. *Ecancermedicalscience*. 2014;8:492.
89. Brennan TA, Horwitz RI, Duffy FD, Cassel CK, Goode LD, Lipner RS. The Role of Physician Specialty Board Certification Status in the Quality Movement. *JAMA*. 2004 Sept 1;292(9):1038–43.

PALLIATIVE CARE IN NIGERIA

90. Centeno C, Noguera A, Lynch T, Clark D. Official certification of doctors working in palliative medicine in Europe: data from an EAPC study in 52 European countries. *Palliat Med*. 2007 Dec;21(8):683–7.
91. Centeno C, Bolognesi D, Biasco G. Comparative analysis of specialization in palliative medicine processes within the World Health Organization European region. *J Pain Symptom Manage*. 2015 May;49(5):861–70.
92. Kamal AH, Harrison KL, Bakitas M, Dionne-Odom JN, Zubkoff L, Akyar I, et al. Improving the Quality of Palliative Care Through National and Regional Collaboration Efforts. *Cancer Control J Moffitt Cancer Cent*. 2015 Oct;22(4):396–402.
93. Rosa WE, Ahmed E, Chaila MJ, Chansa A, Cordoba MA, Dowla R, et al. Can You Hear Us Now? Equity in Global Advocacy for Palliative Care. *J Pain Symptom Manage*. 2022 Oct 1;64(4):e217–26.

Table 1. Summary of 59 studies included in this review.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Adamolekun (26)	1997	Cross-sectional (survey)	Physicians (n=44) and nurses (n=54) working at Ile-Ife Hospital in Southwestern Nigeria for at least 5 years	To understand how health professionals understand and communicate about death	Self-developed questionnaire	The majority of the Nigerian healthcare workers in this study do not formally inform their patients about their prognosis, although more than half believed they should.
Adenekan et al (68)	2019	Quasi-experimental design with pretest and post-test measures	Nurses, doctors, pharmacists, and physiotherapists (n=715 pre-test, 700 post-test) at Obafemi Awolowo University Teaching Hospital	To evaluate the impact of pain management training on the knowledge and attitudes of healthcare workers and opioid utilization	Knowledge and Attitudes Survey Regarding Pain; Hospital opioid utilization	There was a significant increase in pain knowledge after participation in the two-day education program. Hospital net opioid usage increased following the intervention.
Adenipekun et al (27)	2005	Cross-sectional (survey)	Patients (n=69) and family caregivers (n=61)	To assess the knowledge and attitude of patients and relatives to PC and the challenges in administering PC	Self-developed questionnaire	Most participants did not know what PC was yet believed hospice should be established in Nigeria. Over half of participants agreed hospice aligned with Nigerian values and preferred hospice to home care.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Adisa & Anifowose (28)	2019	Cross-sectional (survey)	Pharmacists at University College Hospital (n=58), Obafemi Awolowo University Teaching Hospital (n=37), and Federal Medical Center Abeokuta (n=15)	To evaluate PC knowledge, attitude and involvement of hospital pharmacists in tertiary healthcare institutions in Southwestern Nigeria.	Self-developed questionnaire using 5-point likert scale	Knowledge of PC was inadequate among the majority of hospital-based pharmacists despite most having previous interactions with patients requiring PC.
Afolabi et al (29)	2022	Cross-sectional (qualitative)	Patients with a serious illness (n=21), family caregiver (n=15), nurses (n=7), physicians (n=3), and community healthcare workers (n=2) in Ibadan, Nigeria	To identify preferences and expectations for primary PC among people and their families living with serious illness and the readiness of primary HCPs to deliver primary PC in Nigeria	Semi-structured interviews	Patients and familial caregivers strongly desired support to improve EOL care. Although a trusting relationship is already established with primary care providers, primary care is insufficiently resourced to manage specific issues that arise with terminal illness.
Agbawodike izu et al (30)	2019	Cross-sectional (mixed methods)	Community members living in Nsukka, Enugu State, Nigeria (n=577 survey; n=10 in-depth interviews)	To characterize the attitude of the Nsukka community regarding end of life planning and the factors which inform their beliefs	Self-developed questionnaire using a 4-point likert scale; Focus group discussions	Gender, ignorance, religion, fear of death, marital status, age, and educational attainment were the most significant factors which influenced attitudes toward EOL planning.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Agbawodike izu et al (31)	2019	Cross- sectional (qualitative)	Community members living in Nsukka, Enugu State, Nigeria (n=80)	To understand attitudes and perceptions of Nsukka community members toward end of life planning	Focus group discussions	Most participants were not willing to participate in EOL planning, but thought EOL planning would be useful to avoid problems for their remaining family members after death.
Agha (32)	2022	Cross- sectional (qualitative)	Healthcare workers with experience working with metastatic breast cancer (n=12)	To investigate the role of social work and the challenges social workers encounter in providing services to patients with metastatic breast cancer	In-depth interviews	Social workers provide important support along the cancer continuum. The profession faces challenges with standardized certification, training, and inadequate staffing.
Agom et al (33)	2019	Longitudi- nal (ethnogra- phic observa- tions)	PC team members; doctors (n = 10), nurses (n = 7), social workers (n = 2), physiotherapist (n=1), and pharmacist (n=1) working at a tertiary care hospital in Southeastern Nigeria	To identify PC services available and how these are organized in hospital in Southeastern Nigeria	Documentary analysis, participant observation, and ethnographic interviews analyzed using Spradley's framework for ethnographic data analysis	PC was focused on adult patients and organized as family meetings, in- and outpatient consultation, and weekly home visits. The PC team worked in two shifts from 7:00-19:00.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Agom et al (34)	2020	Cross-sectional (qualitative)	PC team members (n=11), oncology healthcare workers (n=9), patients (n=10), and family members (n=10) at a tertiary care hospital in Southeastern Nigeria	To explore the influence of healthcare delivery organization and social networks on the utilization of oncology and PC services at a hospital in Southeastern Nigeria	Semi-structured interviews	Main themes were dysfunctional organization of the healthcare system, financial barriers to access to care, and strong community influence for traditional medicine
Agom et al (35)	2020	Longitudinal (ethnographic observations)	PC team member (n=11), oncology HCPs (n=9), nursing administrator (n=1), patients (n=10), family members (n=10) at a tertiary care hospital in Southeastern Nigeria	To identify the factors affecting education in PC and the impact on PC systems	Documentary analysis, participant observation, and ethnographic interviews analyzed using Spradley's framework for ethnographic data analysis	PC providers received little formal education in PC and PC is not integrated into healthcare worker training. There was a gap in communication about disease and prognosis by healthcare workers leading patients and family members to feel inadequately informed and dependent upon the medical team to make treatment decisions.
Agom et al (36)	2022	Longitudinal (ethnographic observations)	Patients receiving PC (n=10), PC team members (n=11), and hospital administrators (n=5) at a tertiary care hospital in Southeastern Nigeria	To describe the impact of the physical environment on PC and EOL care provision	Documentary analysis, participant observation, and ethnographic interviews analyzed using Spradley's framework for	The physical environment plays a key role in the provision of PC and inadequate infrastructure, equipment, and PC staff negatively impacts HCPs, patients, and families.

Study	Year	Methods	Population	Study aims	Measures	Main findings
					ethnographic data analysis	
Agom et al (7)	2021	Systematic Review	Included 43 papers: original research (n=34), reviews (n=9)	To summarize barriers to PC delivery in Africa	Extracted data included author(s), publication year, country, title, methodology, objectives, and key findings	Barriers to PC delivery in Africa were provider education, low community awareness, funding, and EOL communication.
Agom et al (74)	2020	Cross-sectional (qualitative)	Palliative and oncology nurses (n=10), doctors (n=8), social workers (n=2), pharmacist (n=1), physiotherapist (n=1), patients (n=8), family members (n=8) in a tertiary hospital in Southeastern Nigeria	To identify organizational enablers and inhibitors of PC delivery	Semi-structured interviews	Key themes identified were poor collaboration among interdisciplinary specialties leading to delayed referral to PC, healthcare workers providing financial support to patients, and self-motivation of PC providers to conduct home visits.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Agom et al (75)	2019	Longitudinal (ethnographic observations)	Patients receiving PC (n=10), family members (n=10), PC HCPs (n=11), and oncology HCPs (n=8) at a tertiary care hospital in Southeastern Nigeria	To examine how patients, their families, and health care professionals interpret the meaning of their life-limiting illnesses and the impact of this on PC utilization	Documentary analysis, participant observation, and ethnographic interviews analyzed using Spradley's framework for ethnographic data analysis	Religious beliefs had a dominant influence on healthcare professionals, patients, and family member beliefs about life-limiting illness. PC was therefore viewed negatively within this cultural context that held strong faith in God's will and capacity to heal.
Ajisegiri et al (37)	2019	Cross-sectional (survey)	Healthcare workers (n=348) in public secondary and tertiary health facilities offering HIV care in Abuja, Federal Capital Territory, Nigeria	To characterize healthcare professional knowledge, attitudes and practice of PC for people living with HIV/AIDS	Palliative Care Quiz for Nursing (PCQN) and Frommelt Attitude toward Care of the Dying (FATCOD) questionnaires	Several misconceptions about the role of PC were identified; specifically that PC is used for prolongation of life and is disease-oriented rather than intended for the quality of life of the patient. Marital status, nursing profession, and higher education were associated with greater knowledge about PC.
Ajisegiri et al (76)	2021	Cross-sectional (survey)	Hospital administrators (n=17) in public secondary and tertiary health facilities offering HIV care in Abuja, Federal Capital Territory, Nigeria	To examine the PC services available to patients living with HIV/AIDS in Abuja, Nigeria	Semi-structured interview	One-third of health facilities had a PC team, although only half of these had dedicated funding. Spiritual and bereavement support was available in some institutions. Health facilities had excellent referral systems for employment and additional social services for people living with HIV/AIDS.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Akodu et al (77)	2024	Cross-sectional (survey)	Hospitalized patients at Lagos University Teaching Hospital (n=129)	To assess the need for PC services among admitted patients	Self-developed questionnaire, Together for Short Lives (TfSL) tool was used to categorize respondents' conditions into Palliative or Non-palliative	The majority of patients had conditions characterized as palliative, although less than one-quarter had any advance care plan. Cancer was the most frequent PC condition identified, followed by trauma, hemoglobinopathy, kidney failure, and heart failure.
Ayodapo et al (38)	2021	Cross-sectional (survey)	Medical doctors (n=95) who attended the Continued Medical Education meeting of the Nigerian Medical Association in Kebbi State	To evaluate medical doctors' knowledge on morphine utilization for cancer-related pain	Self-developed questionnaire	According to the survey grading systems, 10.5% had good knowledge of pain management. Years of experience and familiarity with the World Health Organization guidelines correlated to higher scores. Less than one-third had ever received formal education in pain management.
Badru & Kanmodi (39)	2017	Cross-sectional (survey)	Religious leaders and seminarians (n=302) from 10 religious centers in Ibadan, Nigeria	To evaluate knowledge of PC among religious leaders and seminarians living in Ibadan	Self-developed questionnaire	There was overall low awareness of PC among religious leaders and seminarians. Less than one-third had ever heard of PC, however for those that did three-quarters correctly identified its meaning.
Cadmus et al (40)	2019	Cross-sectional (qualitative)	Adults aged > 60 years seen as outpatients (n=34) at a geriatric center in Oyo State, Nigeria	To assess the knowledge, attitude and beliefs about EOL issues among geriatric persons	Focus group discussions	EOL planning mainly consisted of logistical issues such as will creation, funeral preparation, and family leadership succession plans while healthcare preferences in advance directives were not discussed by any participants.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Cadmus et al (41)	2024	Cross-sectional (survey)	Adults aged > 60 years seen as outpatients (n=204) at a geriatric center at University College Hospital in Ibadan, Nigeria	To evaluate knowledge and attitude toward EOL planning and advance directives among the geriatric population	Self-developed questionnaire	The majority of participants had not previously heard about PC. Participants stated EOL preferences to be cared for at home and to have autonomy over EOL decisions. The majority also did not wish to participate in EOL planning as this was seen as something not currently relevant to them or taboo.
Chigbo, Ezeome, Onyeka, Amah (78)	2015	Systematic Review	Included 12 studies	To define the ethical issues encountered by physiotherapists in the care of terminally ill patients	Ethical analysis performed according to principles of autonomy, beneficence, nonmaleficence, and justice	Key ethical concerns associated with physiotherapy in terminally ill patients were appropriate timing of referral, communication about prognosis and treatment expectations, unclear end point of therapy, consideration of cultural beliefs, and the closeness of the patient-physiotherapist relationship.
Doobay-Persaud et al (42)	2023	Cross-sectional (pre-test before training program)	Physicians (n=12), nurses (n=7), pharmacists (n=4), psychiatrists (n=2), and physiotherapists (n=2) who attended an online PC training program at Lagos University Teaching Hospital	To assess the knowledge and attitudes regarding PC in healthcare professionals in Nigeria	Self-developed questionnaire with open-ended questions	Challenges associated with PC provision were the emotional burden of caring for patients with end-stage cancer, inadequate pain management, and difficulty of managing co-morbidities such as dementia or other mental illness in terminally ill patients.
Eleke et al (43)	2020	Cross-sectional (survey)	Nurses (n=415) working in public and private hospitals in Southeast Nigeria	To assess professional nurses' knowledge regarding PC	Palliative Care Quiz for Nursing	Overall respondents had low knowledge about PC. Factors associated with increased knowledge were participant age, educational certification, and working in a public hospital. Notably, duration of nursing experience was not associated with PC knowledge.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Ettah, Edoho, Kalu (44)	2023	Cross-sectional (survey)	Patients receiving HIV care (n=210) at Uyo Teaching Hospital in Akwa Ibom State, Nigeria	To evaluate the prevalence of pain and the effect on quality of life among patients living with HIV	Brief Pain Inventory (BPI) questionnaire	Pain was reported by almost one-third of all participants, most commonly located in the low back, head, or knees. Pain management was found to be inadequate and affected patients' quality of life particularly related to work and activity.
Fadare et al (45)	2014	Cross-sectional (survey)	Healthcare workers (n=170) at Ekiti State University Teaching Hospital in Ado-Ekiti, Southwest Nigeria	To determine the knowledge and attitudes of healthcare professionals towards PC	Self developed questionnaire	The understanding of PC to be about the management of dying and appropriateness for terminally ill patients was high among participants. The use of morphine at EOL significantly varied between doctors and nurses, as doctors interpreted this to improve quality of life and nurses thought opioid utilization hastened death.
Fadare et al (46)	2014	Cross-sectional (survey)	Nurses (n=100) at Ekiti State University Teaching Hospital in Ado-Ekiti, Southwest Nigeria	To evaluate the knowledge and attitudes of professional nurses regarding PC	Self developed questionnaire	Overall understanding of PC was high among surveyed nurses. The majority correctly identified PC to be about the care of the dying, that dying is a normal process, and that all terminally ill patients could require PC. Pain management and clear EOLdecision making and planning were identified as aspects of a good death.
Faronbi et al (47)	2021	Cross-sectional (survey)	Nurses (n=213) caring for terminally ill patients in the convalescent facilities of a tertiary teaching hospital in Southwest Nigeria	To assess attitudes toward death and caring for terminally ill patients among nurses	Frommelt Attitude Care of the Dying and Death Attitude Profit-Revised questionnaires	Most nurses held a negative viewpoint towards death and caring for terminally ill patients which was associated with participant age, working experience, and hospital ward location.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Hantsi et al (48)	2022	Cross-sectional (survey)	Surgical and critical care nurses (n=148) at Specialist Hospital Sokoto	Determine the pain assessment and management practices of surgical and critical care nurses	Self developed questionnaire	Nurses had a high level of awareness of pain assessment and management practices however barriers to practice were high including workload, insufficient documentation, lack of protocols, time-consuming use of pain assessment tools, and lack of education.
Idemili-Aronu et al (49)	2024	Cross-sectional (survey)	WLWH in twelve HC facilities throughout Nigeria (n=787)	Investigate the knowledge, perceived barriers, and facilitators influencing PC integration into routine HIV care HC settings	Self developed questionnaire	Majority of participants were unaware of PC, but many saw its potential benefits. Predictors of knowledge included education, occupation, religion, having fewer children, type of residence, income. Barriers to PC included negative HC worker attitudes, perceived high cost, and limited decision autonomy could hinder integration. Facilitators included affordability, physician recommendations, and perceived necessity.
Ingwu et al (50)	2016	Cross-sectional (survey)	Nurses working at the University of Nigeria Teaching Hospital, in Enugu (n=130)	Examined the knowledge and practice of EoLC among nurses	Self developed questionnaire	Most respondents knew EOL care as care for the dying, but inadequate manpower and lack of experience negatively influenced practice.
Jack et al (69)	2023	Quasi-experimental design with pretest and post-test measures	Nurses from medical-surgical (n=45), gynecology (n=22), and pediatrics (n=34) units/wards of Rivers State University Teaching Hospital	To evaluate the effect of online PC education course on nurses knowledge of PC among hospital-based nurses in tertiary hospital	Palliative Care Quiz for Nursing	There was no significant association between sociodemographic characteristics and PC knowledge pre-intervention. Nurses' knowledge increased after the PC education.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Jegede et al (51)	2016	Cross-sectional (qualitative)	Elderly Yoruba residents in Ibadan City, Nigeria (n=20)	Document Yoruba perspective on death, cultural beliefs about EOL decision making, factors influencing it and ethics committee role	In-depth interviews	In Yoruba culture, death carries spiritual, physical, and social significance, and EOL decisions are influenced by relationships with significant others and a hierarchy of authority (typically oldest male child, religious leaders, or legal practitioners). Socialization, gender, patriarchy, religion, and tradition shape advance directive practices, while ethics committees play roles in awareness, advocacy, and resource allocation.
Ndiok et al (52)	2018	Cross-sectional (survey)	Oncology in-patients and caregivers in two tertiary health institutions (n=547)	Assess PC needs of patients/families living with cancer	Self developed questionnaire	The most common needs of patients were information regarding treatment possibilities and side effects, diagnosis, testing, and physical symptoms.
Ndiok et al (53)	2019	Cross-sectional (qualitative)	Nurse managers and cancer in-patients in two teaching hospitals in Nigeria	Examine the effect of home visiting and evaluate needed resources for instituting a home visiting program	Focus group discussion, In-depth interviews	Participants agreed that visiting cancer patients would ease many problems commonly encountered by patients following diagnosis of cancer, including psychological, financial, and emotional problems. Needed resources included hospital policies, adequate staff strength, staff commitment and funding.
Ndiok et al (54)	2021	Cross-sectional (qualitative)	Stakeholders (n=4) and nurse managers (n=19) from two tertiary health institutions	Identify barriers and benefits in establishing a model for integration of PC of cancer patients in daily clinical practice	In-depth interviews	Barriers included lack of hospital policies about PC activities, cultural influences, denial or rejection of diagnosis by patients, inappropriate attitude of HCP, patients failing to keep appointments, and finances. Benefits of the model were twofold: hospital outcomes and patients/family outcomes.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Ndukwu et al (12)	2021	Review	Not applicable	To review practice of PC medicine in developing countries and the challenges in providing PC services in South-South Nigeria	Not applicable	The challenges of PC practice are due mostly to lack of government policy, funding, manpower, availability, and acceptability of opioids, especially morphine for proper pain management.
Nelson et al (56)	2024	Cross-sectional (qualitative)	PWUD who had sought care for chronic non-cancer pain in public hospitals in Uyo, Nigeria (n = 26)	Explore health-seeking practices and utilization of ethnomedical therapies for chronic pain management among PWUD	In-depth interviews	Participants reported challenges with BPM which contributed to poor management of chronic pain and encouraged utilization of herbal remedies. While some found herbal remedies to be helpful in relieving pain, others experienced adverse reactions and sought emergency medical services for this reason. The choice between BPM and herbal remedies is shaped by structural inequality and the wider context of medical pluralism.
Nelson et al (55)	2024	Cross-sectional (qualitative)	PWUD who had sought care for chronic non-cancer pain in public hospitals in Uyo, Nigeria (n = 26)	Explore how PWUD experience and respond to stigma in biomedical chronic non-cancer pain management	In-depth interviews	Stigma seen as a normal feature of healthcare and positions chronic non-cancer pain patients who were PWUD as illegitimate subjects undeserving of care. Stigma was seen as expected and often tolerated by PWUD due to its ubiquity. However, participants responded to intolerable stigma through various acts of resistance, including dropping out of care.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Nnadi et al (70)	2016	Quasi-experimental (pre-and-posttest) design	Medical interns rotating through the various departments of the Usmanu Danfodiyo University Teaching Hospital, Sokoto (n=49)	Determine the knowledge of PC among medical interns and determine the effect of a structured educational intervention on improvement of their knowledge levels.	Pre- and posttest questionnaire	Following an educational intervention, PC knowledge levels improved significantly.
Nwagwu et al (57)	2013	Cross-sectional (mixed methods)	Medical practitioners involved in PC at the University College Hospital, Ibadan, Nigeria (n=50)	Examine how ICTs are being used to share information among medical/paramedical team, the sick and with families/relatives and other stakeholders for the purpose of managing patients with advanced cancer	Semi-structured interviews	Doctors reported using mobile phones to link their clients more than other technologies, but relations/families of patients reported using a wider range of technologies to link doctors. Mobile phones fit the working environment in PC where nurses and doctors move around constantly and collaborate extensively.
Nwankwo et al (58)	2013	Cross-sectional (survey)	Cancer patients that at the University of Nigeria Teaching Hospital, Enugu State (n=244)	Examine attitudes of cancer patients on disclosure of cancer information	Self developed questionnaire	Though the majority of patients wanted to know their diagnosis, not all were informed of the diagnosis by their doctors. Over half of participants wanted to be informed of a bad prognosis, but only a small minority was informed. Close to half of patients did not know what cancer meant.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Nwodoh et al (59)	2018	Cross-sectional (qualitative)	Terminally ill patients at a tertiary/teaching hospital in Enugu State, South East Nigeria (n=15)	Explore views of terminally ill patients on: HCPs prognostic information communication practice, communicators of prognosis to them, and the condition under which HCPs communicate prognostic information to them	In-depth interviews	HCPs do withhold prognostic information of terminally ill patients while some communicate it with high optimism (God's miracle for a cure despite their life-ending prognoses). Communication mostly done by doctors whereas nurses and patient relatives did it occasionally.
Nwodoh et al (60)	2020	Cross-sectional (qualitative)	Terminally ill patients at a tertiary/teaching hospital in Enugu State, South East Nigeria (n=15)	Describe the preferences of terminally ill patients regarding the provision of information on their disease prognosis by HCP	Semi-structured interviews	Two themes emerged including prognosis information provision needs (preference for knowing prognosis and fostering hope with information giving) and prognosis information sharing preferences (whom to receive information and whom to provide information). Most of them would prefer that they and or their relatives are informed of their prognoses.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Nwozichi et al (61)	2019	Cross-sectional (qualitative)	Patients (n=12), nurses (n=9), 3 physicians (n=3), and 5 relatives (n=5) at a PC unit in Nigeria	Develop an understanding of the concept of caring in the Nigerian cultural context and present the meanings and expectations of caring and the resulting transformative theory of practice for persons living with cancer in Nigeria	In-depth interviews	Cancer PC in Nigeria is best exemplified through the processes/themes of “knowing,” “revealing,” and “humanizing.”
Odetunde et al (62)	2022	Cross-sectional (survey)	Clinical physiotherapy undergraduates from 10 purposively selected universities across Nigeria (n=281)	Assess knowledge and attitude of clinical undergraduates of physiotherapy in Nigerian universities towards PC	Self developed questionnaire	Almost all respondents displayed a favorable attitude towards PC. There were significant associations between knowledge and university of respondents, knowledge and attitude of respondents, attitude and age of respondents, as well as attitude and geopolitical zone of origin of respondents.
Ogbenna et al (20)	2022	Cross-sectional (mixed methods)	HCPs across hospitals in Nigeria (n=35)	Evaluate the impact of the first session of the training program on HCPs' knowledge, skills, attitudes, and confidence in PC	Pre- and posttest questionnaire	The training had a positive impact on knowledge, skills, and attitudes. Confidence in providing EOL care and in prescribing medication to relieve symptoms at the end of life increased.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Ogbenna et al (71)	2024	Longitudinal education program evaluation	HCPs across hospitals in Nigeria (n=35)	Determine the impact of virtual trainings in primary PC on HCPs' attitudes, knowledge, skills and plans to implement and deliver PC	Pre- and posttest questionnaire	HCPs in Nigeria demonstrated increased knowledge and confidence in providing PC as a result of an adapted virtual training programme
Ogboli-Nwasor et al (63)	2013	Cross-sectional (survey)	HCP who are directly involved in the management of cancer patients at the Ahmadu Bello University Teaching Hospital, Shika, Zaria (n=82)	Evaluate the knowledge and practice of cancer pain management among HCP	Self developed questionnaire	While nearly half of HCPs strongly agreed that cancer patients require pain relief only 40% routinely conducted pain assessments among cancer patients. Over half were only treated when patients complained of pain. Less than a quarter of HCPs used strong opioids. The majority of HCPs had no formal training on pain management.
Ogunkorode et al (80)	2019	Book Chapter	Not applicable	Not applicable	Not applicable	PC in Nigeria must be integrated into the health system and tailored to local sociocultural, spiritual, and familial contexts. Support for home-based care, provider training, standardized policies, and culturally sensitive communication are essential to improve quality of life and prevent unnecessary suffering at the end of life.
Ojedoyin et al (64)	2022	Cross-sectional (survey)	Nurses and nursing students (n=401) working in secondary healthcare institutions (88.9% public, 96.9% private) in Ibadan, Oyo state, Nigeria	To study nurses' perceptions on the benefits, drawbacks, and their roles in initiating and implementing advance directives	Self-developed questionnaire using 5-point likert scale	Public healthcare nurses had a more favorable opinion of advanced directive benefits than private healthcare nurses. Christian nurses were less likely than Muslim nurses to contest advance directive benefits.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Oji et al (65)	2022	Cross-sectional (qualitative)	Newly qualified Nigerian physicians (n=40)	Obtain insight into the perspectives, perceived self-efficacy, and preparedness of newly qualified Nigerian physicians in practising PC	Semi-structured interviews	Perceived self-efficacy and preparedness of physicians was higher in areas of family involvement, and pain and symptom management than in areas of breaking bad news, prognosis, and diagnosing dying. Influences on perceived self-efficacy and preparedness were SES, culture, and religion.
Okpala et al (66)	2021	Cross-sectional (survey)	Nurses at University of Nigeria Teaching Hospital, Enugu State, Nigeria (n=284)	To assess nurses' perceptions towards the care of patients with terminal illness	Self-developed questionnaire using 4-point likert scale	Nurses had a positive perception of death and believed it was good to care for the dying, that the rights of patients should be protected, and providers should aim for peaceful death. Religion, belief, and previous experience with a dying patient and loss of a loved one were personal factors influencing nurses beliefs. Euthanasia and advance directives were source of ethical and moral concern
Omoyeni et al (14)	2014	Retrospective cohort	Adult cancer patients on home-based PC at University College Hospital, Ibadan (n=60)	To describe the cancer patients receiving home-based PC, the services delivered, patient/family outcomes, and perceived benefits.	Medical records reviewed	Home-based PC provided pain/symptom relief, caregiver training, and psychosocial support at low cost, with high family satisfaction. Challenges included late referral, limited resources, and need for trained staff.

Study	Year	Methods	Population	Study aims	Measures	Main findings
Onyechi et al (72)	2016	Experimental with pre-posttest randomized control group design	Community-dwelling cancer patients (n = 32) and their family caregivers (n = 52)	Examine effects of REHCT on problematic assumptions, death anxiety, and psychological distress in cancer patients and caregivers in south-eastern Nigeria	CPFCAQ, DAQ, K10	Improvement in problematic assumptions, death anxiety, and psychological distress reduction among the cancer patients and their family caregivers after REHCT intervention program
Onyeka et al (73)	2024	Quasi-experimental design with pretest and post-test measures	Caregivers of children admitted for cancer treatment (n=180)	Determine impact of psychoeducation program on caregivers' outcomes related to preparedness to provide care, burden of caregiving, and QOL	CQoLC scale, ZBI/Caregiver Burden Scale, Preparedness for Caregiving Scale in Palliative Care, NAFC-C questionnaire	The psychoeducation program significantly reduced caregiver burden and improved preparedness and unmet needs, though some decline in caregiver QoL was observed.
Uche et al (79)	2024	Cross-sectional (qualitative)	Cancer patients (n=12) and PC SW (n=6) in southeast Nigeria	Investigate provision of palliative social work services for cancer patients	Semi-structured interviews	Social work PC includes psychosocial support, spiritual guidance, and educational resources. SW encounter barriers such as emotional stress, burnout, communication gaps, financial constraints, and socio-cultural factors

Study	Year	Methods	Population	Study aims	Measures	Main findings
van Gorp et al (67)	2015	Cross-sectional (qualitative)	Health care professionals interested in PC, key stakeholders, and telecom company representatives	Explore Nigerian HCP concepts of a good death and how telemedicine technologies and services would fit the current practice	Unstructured interview	Good dying is defined as life completion and dying within a community; Barriers include socioeconomic burden, cultural taboos, limited medical access, religion-medicine overlap, and poor policy implementation; Telemedicine limited by infrastructure, though low-tech tele-education seen as feasible.

AD: advance directive; BPM: biomedical pain management; CPFCAQ: Cancer Patients' and Family Caregivers' Assumptions Questionnaire; CQoLC: Caregiver Quality of Life Index-Cancer; DAQ: Death Anxiety Questionnaire; EOL: end of life, HC: healthcare; HCP: healthcare professional; K10: Kessler Psychological Distress Scale; NAFC-C: Needs Assessment of Family Caregivers-Cancer; PC: palliative care; PWUD: people who use drugs; QoL: quality of life; REHCT: rational emotive hospice care therapy; SES: socioeconomic status; SW: social worker; WLWH: women living with HIV; ZBI: Zarit Burden Interview

Table 2. Included study types and designs.

Study Type	Number of Studies
Quantitative Cross-sectional survey Retrospective cohort	23 1
Qualitative Interviews or focus group discussions Ethnographic observation	18 4
Mixed Methods	2
Interventional Randomized controlled trial Quasi-experimental pre/post-test design	1 6
Systematic Review	3
Book Chapter	1

Table 3. Proposed areas for interventional targets and future scientific inquiry.

Pillar	Recommendations for Myriad Stakeholders
Knowledge and Attitudes	<ul style="list-style-type: none"> • Promote community engagement to improve awareness of palliative care and dispel misconceptions • Facilitate patient-provider discussions to accurately convey terminal prognosis and end-of-life care needs
Implementation	<ul style="list-style-type: none"> • Create institutional protocols to structure referral pathways for palliative care referral pathways • Dedicate physical space for palliative care counselling and treatment • Include community and public-health based palliative care approaches
Medicine Availability	<ul style="list-style-type: none"> • Implement routine pain assessment protocols using validated questionnaires across healthcare settings • Establish opioid stewardship programs to ensure safe, effective, and accessible use of opioids
Education	<ul style="list-style-type: none"> • Integrate palliative care in undergraduate medical and nursing training through classroom and clinical-based models • Develop continued professional education programs for palliative care team members to occur at least semi-annually
Policy	<ul style="list-style-type: none"> • Review barriers to effective implementation of existing federal policies • Allocate public funding to palliative care program implementation • Incorporate palliative care within the National Health Insurance Scheme
Vitality	<ul style="list-style-type: none"> • Recognize palliative care as a sub-specialty at the national level • Initiate professional certification programs in palliative care
Research	<ul style="list-style-type: none"> • Support intervention-focused research to evaluate implementation and education initiatives

Figure 1. PRISMA diagram.