

Systematic Review

Palliative Nursing in Africa: Scoping the Landscape of Evidence Focusing on Cancer Care

Johanna E. Maree¹, Samuel A. M. Bingo², Owens Mgawi³¹Department of Nursing Education, University of the Witwatersrand, Johannesburg²Out Patient Department, National Cancer Center, Lilongwe, Malawi³Department of Oncology, Queen Elizabeth Central Hospital, Blantyre, Malawi

Cite this article as: Maree, J. E., Bingo, S. A. M., & Mgawi, O. (2023). Palliative nursing in africa: Scoping the landscape of evidence focusing on cancer care. *Florence Nightingale Journal of Nursing*, 31(S1), 38-44.

Abstract

AIM: The aim of this study was to describe the research output of African's nurses in the field of palliative care from January 1, 2012 to December 31, 2021.

METHODS: A scoping review was conducted. The key words *Africa* and *nursing* in combination with *palliative care*, *end of life*, *terminal care*, *hospice*, and *supportive care* were used to search the databases Cumulative Index to Nursing and Allied Health Literature, PsychINFO, PubMed, Scopus, and Web of Science. Only studies authored by a nurse with an African affiliation focusing on issues related to advanced cancer were included. The data were captured onto an extraction sheet and analyzed by means of descriptive statistics and content analyses.

RESULTS: Of the 522 articles identified, only 16 met the inclusion criteria. The work originated from eight African countries was primarily qualitative and focused on the family and caregivers. Pain was the only symptom investigated.

CONCLUSIONS: Studies focusing on symptoms, psychosocial, spiritual, end of life care as well as studies testing nursing interventions are urgently needed. Interregional research could also assist with building the current evidence.

Keywords: Africa, cancer, nursing, palliative care

Introduction

Africa, consisting of 54 countries, is the world's second-largest continent after Asia and hosts the world's second-largest population estimated at 1.3 billion (Britannica, 2022; International Agency for Research on Cancer and World Health Organization, 2021). The Sahara Desert divides Africa into two culturally distinct geographical regions—north that is culturally more influenced by the Arab culture and Islam, and Sub-Saharan Africa (SSA), the poorest region of the world (New World Encyclopedia, 2020). Similar to the rest of the world, cancer is a public health problem in Africa and an estimated 1.1 million people were newly diagnosed with cancer in 2020 with about 700,000 dying from the disease in the same year. Breast cancer is the most common cancer in Africa's women followed by cervical and colorectal cancer. Prostate cancer is the most common cancer in men followed by liver and colorectal cancer (International Agency for Research on Cancer and World Health Organization, 2021). However, almost 50% of adults newly diagnosed with cancer in Africa will suffer from one of these cancers. In addition, nearly 90% of the more than 400,000 children diagnosed with cancer each year live in middle and low-income countries. In Africa, only about 20% will survive childhood cancer compared to the

80% who would survive in developed countries (World Health Organization African Region, 2022).

Africa faces various challenges in terms of cancer control and most of the SSA countries are not proactive in terms of cancer (Ngwa et al., 2022). Indeed, Africa contributes a higher percentage to global cancer mortality than incidence, 7.3% and 5.8%, respectively, which is due to the different distribution of cancer and the higher fatality rates (Bray et al., 2018). In addition, many people lack knowledge and awareness of cancer and primary prevention, and early detection services are often unavailable or offered in an opportunistic manner with less than 10% but up to 50% of the target population participating in these programs. Diagnosis and treatment are often delayed due to a lack of treatment facilities and adequately prepared healthcare professionals (Ngwa et al., 2022; World Health Organization African Region, 2022). Radiotherapy, playing a crucial role in palliative cancer care in terms of pain control, is not available in 28 African countries (Zubizarreta et al., 2015). Systemic anticancer therapies also pose a problem due to the availability and cost of the drugs, the lack of suitable treatment facilities, and shortage of suitably prepared professional nurses to administer the drugs and monitor and support the patients and their families

(Boyle et al., 2019). To add to this dire situation, there is limited access to palliative care and pain medication (World Health Organization African Region, 2022) while poverty and having to pay out of pocket also hamper cancer treatment and care (Ngwa et al., 2022).

Palliative care, described by the African Palliative Care Association (2022) as the “kind of care that we would all want for ourselves and the people we love,” is an essential part of cancer care as it ultimately aims to improve quality of life by means of the management of pain and other symptoms, promotion of mental health, and rendering practical and spiritual support to adults and children with cancer as well as their families and caregivers (African Palliative Care Association, 2022; World Health Organization, 2022). Palliative care is not limited to specific care settings but is rendered wherever the patient is. Palliative care can start at any stage of the cancer journey (Hospice Palliative Care Association of South Africa, 2020) but is, according to the revised definition of the International Association for Hospice and Palliative Care (Radbruch et al., 2020), especially applicable to those near end of life.

Nurses are on the frontline of palliative care as they devote most time to caring for patients with cancer, their families, and caregivers. Although palliative care supports an interdisciplinary approach, nurses may be the only contact cancer patients and their families have with palliative care. In some African countries, palliative care is provided by nurses exclusively, with some having prescriptive authority. In addition to direct care, the role of the palliative care nurse in Africa includes advocating for opioids and other essential drugs and consumables, advocating for policies guiding palliative care delivery, leadership to develop palliative care in the community and research (Brant et al., 2021) to develop new knowledge to underpin practice and improve care outcomes.

Scoping reviews is an approach that allows researchers the opportunity to identify and map available evidence and is especially useful when the information has not been comprehensively reviewed. Scoping reviews determine the scope of a specific body of literature on a selected topic, which for this study is the research output in terms of palliative cancer care of African nurses in a given time. Scoping reviews gather information from both qualitative and quantitative studies and define the volume of the studies available and give an overview of the focus. Scoping reviews also allow for the identification and analyses of knowledge gaps that can guide future research (Munn et al., 2018; Sargeant & O'Connor, 2020) without formally evaluating the quality of the evidence (Arksey & O'Malley, 2005; Sucharew & Macaluso, 2019).

The purpose of this scoping review was to describe the research output of Africa's nurses in the field of palliative cancer care from January 1, 2012, to December 31, 2021. This period was chosen as it seems as if palliative care developed gradually over the past decade in Africa (Luyirika et al., 2022; Rhee et al., 2018).

Research Questions

- What is the quantity of the research output published by nurses in Africa in the field of palliative cancer care for the period 2012–2021?
- What are the trends of the research output and knowledge gaps in Africa in this field of nursing?
- What is the guide for future research in this field of nursing?

Methods

Study Design

We used the methodological framework of Arksey and O'Mally (2005) (Levac et al., 2010), consisting of five steps to guide this review. In Step 1, the research question/s are identified; Step 2 uses a broad strategy to identify the relevant studies; in Step 3, the studies are selected as per inclusion and exclusion criteria; Step 4 relates to the data extraction and charting process, while Step 5 consists of the collating, summarizing, and reporting of the results (Sucharew & Macaluso, 2019).

Search Strategy

We used the key words *Africa* and *nursing* in combination with *palliative care*, *end of life*, *terminal care*, *hospice*, and *supportive care* and searched the databases Cumulative Index to Nursing and Allied Health Literature, PsychINFO, PubMed, Scopus, and Web of Science. We also searched the reference lists of tracked articles. To be included in the review, studies had to be conducted in an African country between January 1, 2012, and December 31, 2021, and should have a nurse with an African affiliation as author and focus on cancer care. As per revised definition of palliative care (Radbruch et al., 2020), only studies including issues related to advanced cancer were included in the review. We excluded literature reviews, conference abstracts, case reports, dissertations, editorials and letters to the editor, abstracts, and gray literature as we wished to report on published research only.

Data Collection

The data were collected during November and December 2022. We first imported the lists of publications into an electronic reference manager allowing us to remove the duplicates. The database search produced 552 articles, and 243 duplicates were removed. Once the duplicates were removed, the remaining articles ($n=309$) were transferred to an Excel spreadsheet. The titles of the work were first screened to determine whether the studies met the inclusion criteria; abstracts and full text were used when the titles were inconclusive—232 articles were removed leaving 77 for possible inclusion in the review. After reviewing the full texts of the work, 61 did not meet the inclusion criteria and 16 manuscripts were included in the review. Where the professions of the authors were not clear, we searched for their profiles on the web, asked colleagues in the specific countries where the studies were conducted or sent emails to inquire. Studies were excluded in instances where the occupations of the authors could not be confirmed. Two researchers applied the selection criteria independently and we held a consensus meeting

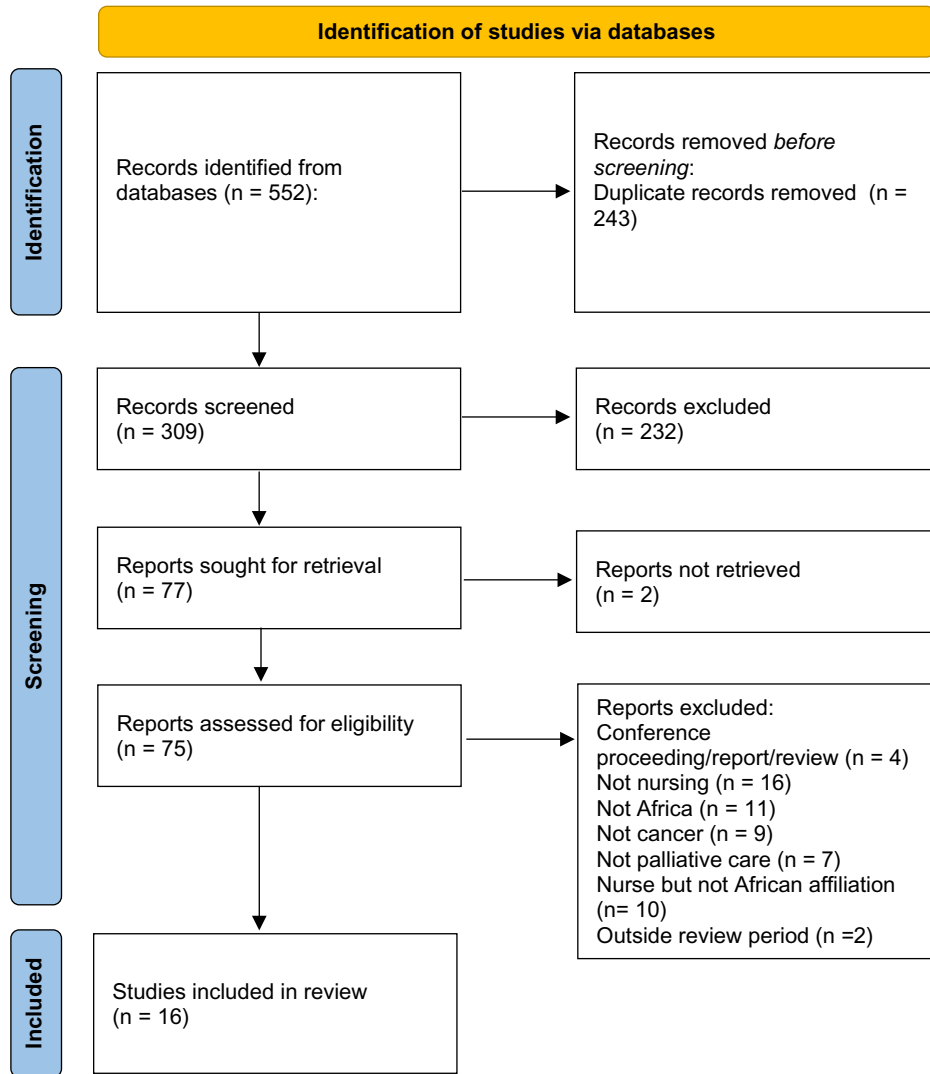


Figure 1.

PRISMA FLOW DIAGRAM

Source: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71

to confirm the papers included in the review. A PRISMA flow-sheet (Figure 1) (Page et al., 2021) presents the details of the screening process used in the study.

Statistical Analysis

We developed a data extraction sheet to enable us to handle, capture, and combine the work included in the review. The data extraction sheet allowed us to capture the author/s, year of publication, country where the study was conducted, the journal of publication, the purpose of the study, the study design, the population or unit of analysis, the sampling method and sample size, the data collection method and instrument, method of data analyses, and the major results (please see Supplementary Table 1). The data were analyzed by means of descriptive statistics and content analyses. Using two researchers to analyze the data independently, an iterative process by reflecting on the previous step before moving to the next step and using a standardized

framework as guide enhanced the study's rigor (Verdejo et al., 2021).

Results

Countries or Origin, Years, and Journals of Publication

The work included in the review originated from eight ($n=8$) African countries. The highest percentage of the work (31.1%; $n=5$) came from Nigeria, followed by Ghana and South Africa who each published three (18.8%; $n=3$) papers. The rest of the countries published only one paper (6.3%; $n=1$) during the review period. Twenty-five percent of the work were published in 2020 while there were no publications in 2012, 2013, and 2017. The papers were published in 12 different journals ($n=12$) of which only one journal, the *Pan-African Medical Journal*, focuses specifically on Africa. Most of the journals (66.7%; $n=12$) published one paper only. The details are provided in Figure 2 and Table 1.

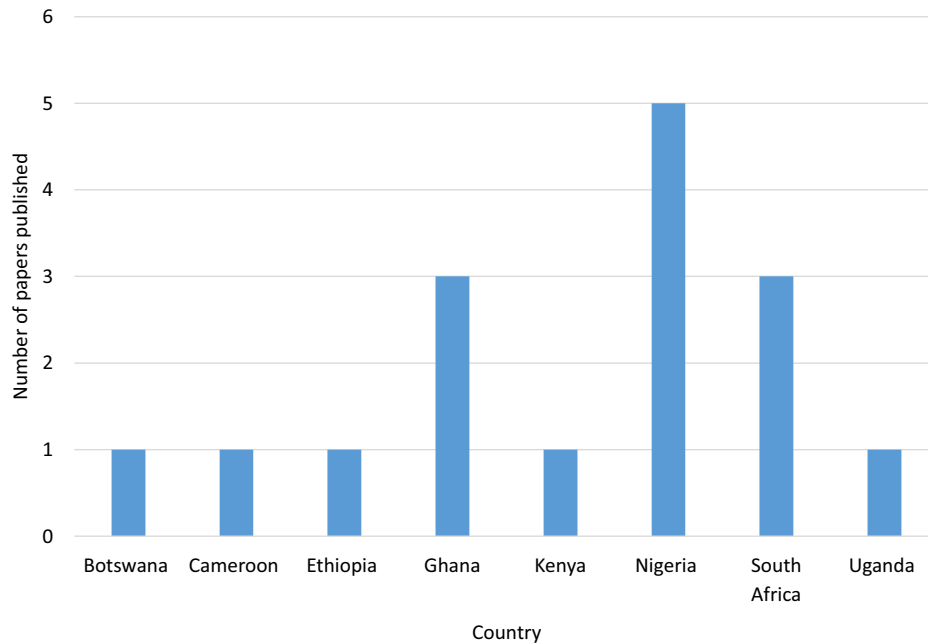


Figure 2. Countries Where the Studies Were Conducted (n=16).

Table 1. Year and Journal of Publication of the Studies Included in the Review (n=16)

Year	n	%
2021	1	6.3
2020	4	25
2019	3	18.8
2018	3	18.8
2017	0	0
2016	2	12.5
2015	2	12.5
2014	1	6.3
2013	0	0
2012	0	0
Journals	n	%
AsiaPacific Journal of Oncology Nursing	1	6.3
BMC Research notes	1	6.3
Cancer Nursing	1	6.3
International Journal of Nursing Practice	1	6.3
International Journal of Palliative Nursing	2	12.5
Journal of Hospice & Palliative Nursing	1	6.3
Pain Management Nursing	1	6.3
Pan-African Medical Journal	1	6.3
PLOS ONE	2	12.5
Scandinavian Journal of Caring Science	2	12.5
Supportive Care in Cancer	2	12.5
World Journal of Clinical Oncology	1	6.3

Focus of the Studies

The focus of the studies was diverse and only two studies (12.5%; n=2) investigated the same topic namely caregiver burden. However, the topics were grouped into six themes as illustrated in Table 2.

General Characteristics of the Work

Various research designs were used but the work was primarily qualitative (62.5%; n=10). The highest percentage of the qualitative work was either non-specific qualitative or qualitative descriptive, 12.5% (n=2), respectively. The rest of the work used interpretive, exploratory, descriptive, phenomenological, ethnographic, qualitative exploratory, and descriptive designs which appeared in one study only. The total body of quantitative work (37.5%; n=6) were cross-sectional/survey studies while the design of one study (6.3%; n=1) was not clear. Most of the studies used purposive sampling (62.5%; n=10) while 18.8% (n=3) used convenience sampling and one study (6.3%; n=1) used purposive and snowball sampling. The sampling methods of 12.5% (n=2) of the studies were not clear. The sample sizes of the studies ranged from 11 to 429 with a median of 27.5 and bimodal of 15 and 22. The average sample size was 120.9 (SD ± 138.9). When investigating the participants, cancer patients were the focus of 50% (n=8) of the work, followed by caregivers, either caregivers in general or family caregivers, and nursing, 31.3% (n=5), respectively. The details are provided in Table 3.

Semi-structured/in-depth interviews were the most common data collection methods and were used in 56.2% (n=9) of the studies while 12.5% (n=2) used interviews. Focus groups were used in 18.8% (n=3) of the studies and 6.3% (n=1) used observations similar to interviewer-administered and researcher-administered questionnaires, respectively. The data collection method of 18.8% (n=3) of the studies

Table 2.
*Themes and Topics Investigated (n = 16)**

Themes and Topics	n	%
Caregivers, caregiving, and care needs		
• Caregiver burden	2	12.5
• Coping strategies	1	6.3
• Motivations	1	6.3
• Care needs of in-patients and clinic patients or their families	1	6.3
• Home-based care needs of child patients and their families	1	6.3
• Model of care		
• Barriers and benefits toward a model of care for the integration of cancer-related palliative care in daily clinical practice	1	6.3
• Development of a model of care to integrate prevention and early detection of breast cancer into palliative cancer care	1	6.3
• Effect of home visiting as part of the program on the integration of palliative cancer care in clinical practice	1	6.3
• Experiences		
• Family caregivers of women with advanced breast cancer	1	6.3
• Husbands of women with advanced breast cancer	1	6.3
• Palliative chemotherapy		
• Experiences of nurses	1	6.3
• Patient and family motivators	1	6.3
• Patient and family experiences	1	6.3
• Transitions	1	6.3
• Pain management		
• Barriers toward management	1	6.3
• Knowledge of family caregivers	1	6.3
• Self-efficacy of family caregivers	1	6.3
• Palliative care services		
• Knowledge	1	6.3
• Accessibility	1	6.3
• Utilization	1	6.3

*The total exceeds 100% as more than one topic was investigated in some of the studies.

was not clear. Questionnaires were the most commonly used data collection instrument (43.8%; $n=7$) while interview/topic guides collected the data in 31.3% ($n=5$) of the studies. One study (6.3%; $n=1$) asked a single opening question and the instrument used in one study (6.3%; $n=1$) was not clear.

Descriptive statistics were the most common data analyses method used (37.5%; $n=6$) followed by thematic analyses

Table 3.
*The Participants in the Work Included in the Review (n = 16)**

Participants	n	%
Patients		
• Cancer patients	6	37.5
• With Burkett's lymphoma	1	6.3
• Women with breast cancer	1	6.3
Nursing		
• Nurses	3	18.8
• Nurse managers	2	12.5
Caregivers		
• Caregivers in general	3	18.8
• Family caregivers	2	12.5
Family members		
• Family members in general	2	12.5
• First-degree relatives of women with breast cancer	1	6.3
• Husbands	1	6.3
• Micro-communities	1	6.3
• Clinicians working in a palliative care setting	1	6.3

*The total exceeds 100% as more than one population was investigated in some of the studies.

(31.3%; $n=5$), qualitative content analyses (25%; $n=4$), Tesch's approach (6.3%; $n=1$), and not clearly indicated (6.3%; $n=1$).

Discussion

To the best of our knowledge, this is the first synthesis of scholarly work done in the field of palliative care nursing focusing on cancer patients in Africa, by nurses from Africa and therefore complicates comparisons. Rhee et al. (2017) when scoping palliative care in Africa found that palliative care services increased in Africa over a period of 12 years (2006–2015) with the biggest increase in South Africa, Kenya, Uganda, and Tanzania while Botswana, Côte d'Ivoire, Egypt, Malawi, Namibia, and Nigeria also showed increases in the number of palliative care services. Considering the ever-increasing burden of cancer and the growth in palliative care services, it might be reasonable to expect that nurses added to the body of knowledge about the care of these patients and their families along with the expansion of these services. However, as seen from the current review, only 16 ($n=16$) studies could be found. This number compares negatively to the number of cancer nursing studies published between 2015 and 2019 ($n=84$) of which only 4.2% ($n=2$) focused on palliative care (Maree et al., 2021). The world review on cancer nursing output of Molassiotis et al. (2006) also paints a bleak picture. Although it was reported that 128 (21.2%) of the 619 studies included in the world review focused on patients with advanced cancer, only 0.5% of the total amount of papers originated from Africa.

What was disappointing is that 10 articles were excluded from the review as the nurses co-authoring the work did not have

or disclose an African affiliation. The same trend was seen in the African cancer nursing review published in 2021 (Maree et al., 2021). Unfortunately, the reason for this trend is unclear. As SSA still faces challenges with the integration of palliative care in cancer care and often focus on curative therapies (Ngwa et al., 2022), assistance to establish palliative care nursing and conduct research to develop contextual, evidence-based nursing practice would be more helpful than to write "about us without us" (Charlton, 2000). In addition, it is debatable if this trend is in the best interest of the patients we serve.

When considering the countries where palliative care services increased (Rhee et al., 2017), the work included in the current review originated from most, with the exception of Tanzania, Malawi, and Namibia. It was also interesting to note that the highest percentage of the studies originated from Nigeria which is in contrast to the cancer nursing research where South Africa dominated (Maree et al., 2017, 2021). However, Agom et al. (2021), when scoping the barriers to the provision and utilization of palliative care in Africa, found the same trend as approximately 40% of the 42 studies included in their review originated from Nigeria. What is notable is some of this review's studies were collaborative research between two or three countries, a trend that has not been seen in the current review. According to Wai-Chan (2017), interregional research has a higher impact, could prevent fragmentation, and help with building critical mass. Working across borders could assist Africa's nurses working in the field of cancer-related palliative care to make a greater impact, prevent the duplication of studies, and build critical mass to serve as evidence for practice.

Our study provided evidence that only one study included in the review (6.3%) was published in a journal focusing specifically on the African population. Maree et al. (2017) when scoping the African oncology nursing research between 2005 and 2014 mentioned four journals focusing on African work. Whether publishing in international journals is the best way of disseminating research findings is debatable as local and regional journals serve as a platform to publish work relevant to local populations (Murudkar, 2022). Unfortunately, the drive for publishing work in high impact international journals and disregard for local journals can hamper the dissemination of nursing research that can serve as evidence for nursing practice and improve care outcomes for cancer patients and their families.

It was interesting to note that the studies included in the current review were primarily qualitative. This is in contrast with what was found in the reviews on cancer nursing research where the majority of the work was quantitative (Maree et al., 2017, 2021; Molassiotis et al., 2006). Broeder and Donze (2020) purport that quantitative evidence supports scientific personal and experiential knowledge needed for nursing practice while qualitative research supports the art of nursing practice leading to an understanding of the whole patient as an individual. Thus, both approaches are needed to guide evidence-based nursing care.

Of concern is that only a third of the studies included in the review included patients with advanced cancer while family members and caregivers were the populations with the highest

percentage of the studies. Also, the only symptom investigated was pain and also not from a patient perspective. The focus of the studies diverts from primary palliative nursing described by Rosa et al. (2020), as managing pain and other symptoms and the treatment of adverse effects, assessing the needs of the patients/families as well as their values and coping abilities and support at the end of life into bereavement.

What was also missing among the studies included in the current review are studies focusing on psychosocial, spiritual, end of life care and studies testing nursing interventions to improve care outcomes. Tuominen et al. (2019), when investigating the effectiveness of educational, psychosocial and interventions to support patient coping, found the interventions had positive effects on symptom severity, uncertainty, spiritual well-being, cancer-related fatigue, sleep, anxiety distress, dyspnea, and functional ability. In addition, Doorenbos et al. (2013), in a meta-analysis of studies focusing on hope in cancer patients, concluded that the interventions included in their study had a positive influence on hope. Intervention studies are of great importance to improve the lives of patients living with advanced cancer, especially in Africa, where many patients and their families do not have access to palliative anticancer treatment and medicines used in palliative care and are unable to afford cancer care as they live in poverty. However, before embarking on interventions, baseline data are needed to ensure whatever the intervention focuses on, addresses the palliative care needs of the patients and/or their families, and is not based on perceived needs.

Study Limitations

Our study has various strengths. We included studies with different designs, developed a tool for mapping the evidence, and used an iterative process to enhance the rigor of the study. We also worked systematically and followed a replicable, transparent process (Levac et al., 2016). However, our study is not without limitations. We used a traditional scoping review method and selected specific keywords, databases, and included work published in the English language only. Therefore, it is possible that the review did not include the total body of work conducted in Africa by Africa's nurses. In addition, using "nursing" as a keyword and not being able to confirm the occupations of some authors could have led to inter-professional work being omitted. Yet, we believe this scoping review represents the work conducted by Africa's nursing scholars, can serve as baseline and can guide future research.

Conclusion and Recommendations

Sixteen articles, conducted in eight African countries, were included in the review; the highest percentage was from Nigeria. The studies were primarily qualitative and focused on family members and/or caregivers. Pain was the only symptom investigated and none of the studies investigated psychosocial and spiritual issues and end-of-life care. Studies focusing on these topics as well as symptoms are urgently needed as are studies testing nursing interventions to improve patient outcomes and those of the family. Interregional research and involving partners with experience in a greater variety of studies such as mixed methods, quasi-experimental, experimental, and intervention studies could assist with building the current evidence.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – J.E.M.; Design – J.E.M., S.A.M.B., O.M.; Supervision – J.E.M.; Resources – J.E.M.; Materials – J.E.M., S.A.M.B., O.M.; Data Collection and/or Processing – J.E.M., O.M.; Analysis and/or Interpretation – J.E.M., S.A.M.B., O.M.; Literature Review – J.E.M.; Writing – J.E.M., S.A.M.B., O.M.; Critical Review – S.A.M.B., O.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

References

- African Palliative Care Association (2023). *What is palliative care?*
- Agom, D. A., Onyeka, T. C., Iheanacho, P. N., & Ominyin, J. (2021). Barriers to the provision and utilization of palliative care in Africa: A rapid scoping review. *Indian Journal of Palliative Care, 27*(1), 3–17. [\[CrossRef\]](#)
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19–32. [\[CrossRef\]](#)
- Boyle, P., Ngoma, T., Sullivan, R., & Brawley, O. (2019). Cancer in Africa: The way forward. *Ecancermedicalscience, 13*, 953–953. [\[CrossRef\]](#)
- Brant, J. M., Al-Zadjali, M., Al-Sinawi, F., Mushani, T., Maloney-Newton, S., Berger, A. M., & Fink, R. (2021). Palliative care nursing development in the Middle East and northeast Africa: Lessons from Oman. *Journal of Cancer Education, 36*(1), 69–77. [\[CrossRef\]](#)
- Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians, 68*(6), 394–424. [\[CrossRef\]](#)
- Brittanica (2022). *Africa continent*.
- Broeder, J. L., & Donze, A. (2010). The role of qualitative research in evidence-based practice. *Neonatal Network, 29*(3), 197–202. [\[CrossRef\]](#)
- Charlton, J. I. (2000). *Nothing about us without us: Disability oppression and empowerment*. University of California Press.
- Doorenbos, A. Z., Juntasopeepun, P., Eaton, L. H., Rue, T., Hong, E., & Coenen, A. (2013). Palliative care nursing interventions in Thailand. *Journal of Transcultural Nursing, 24*(4), 332–339. [\[CrossRef\]](#)
- Hospice Palliative Care Association of South Africa (2020). *Palliative Care*.
- International Agency for Research on Cancer, & World Health Organization (2021). *Cancer today: Population fact sheets*.
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science, 5*(1), 69. [\[CrossRef\]](#)
- Luyirika, E., Lohman, D., Ali, Z., Atieno, M., Mahenge, A., Mmbando, P., Muinga, E., Musyoki, D., Mwesiga, M. D., Namisango, E., Nosim, P., Opio, G., Pardy, S., Ruzima, A., Skowronska, E., Uhagaze, B., Zalwango, J., & Aluso, A., Musyoki, D., Mwesiga, M. D., Namisango, E., Nosim, P., Opio, G., Pardy, S., Ruzima, A., Skowronska, E., Uhagaze, B., Zalwango, J., & Aluso, A. (2022). Progress update: Palliative care development between 2017 and 2020 in five African countries. *Journal of Pain and Symptom Management, 63*(5), 729–736. [\[CrossRef\]](#)
- Maree, J. E., Herbert, V., & Huiskamp, A. A. (2017). Cancer nursing research output in Africa 2005 to 2014: An integrative review. *Cancer Nursing, 40*(1), E36–E44. [\[CrossRef\]](#)
- Maree, J. E., Khutjwe, J. V., Swart, N. C., & Maree, J. E. (2021). Cancer nursing research output in Africa 2015 to 2019. A scoping review. *International Journal of Africa Nursing Sciences, 15*, 100381. [\[CrossRef\]](#)
- Molassiotis, A., Gibson, F., Kelly, D., Richardson, A., Dabbour, R., Ahmad, A. M., & Kearney, N. (2006). A systematic review of worldwide cancer nursing research: 1994 to 2003. *Cancer Nursing, 29*(6), 431–440. [\[CrossRef\]](#)
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology, 18*(1), 143. [\[CrossRef\]](#)
- Murudkar, S. (2022). *Why publishing in national journals is also a great choice!*
- New World Encyclopedia (2020). *Sub-Saharan Africa*.
- Ngwa, W., Addai, B. W., Adewole, I., Ainsworth, V., Alaro, J., Alatise, O. I., Ali, Z., Anderson, B. O., Anorlu, R., Avery, S., Barango, P., Bih, N., Booth, C. M., Brawley, O. W., Dangou, J. M., Denny, L., Dent, J., Elmore, S. N. C., Elzawawy, A., Gashumba, D., et al. (2022). Cancer in sub-Saharan Africa: A lancet oncology commission. *Lancet Oncology, 23*(6), e251–e312. [\[CrossRef\]](#)
- O'Brien, K. K., Colquhoun, H., Levac, D., Baxter, L., Tricco, A. C., Straus, S., Wickerson, L., Nayar, A., Moher, D., & O'Malley, L. (2016). Advancing scoping study methodology: A web-based survey and consultation of perceptions on terminology, definition and methodological steps. *BMC Health Services Research, 16*, 1–12.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., McGuinness, L. A., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. [\[CrossRef\]](#)
- Radbruch, L., De Lima, L., Knaul, F., Wenk, R., Ali, Z., Bhatnagar, S., Blanchard, C., Bruera, E., Buitrago, R., Burla, C., Callaway, M., Munyoro, E. C., Centeno, C., Cleary, J., Connor, S., Davaasuren, O., Downing, J., Foley, K., Goh, C., Gomez-Garcia, W., et al. (2020). Redefining palliative care—A new consensus-based definition. *Journal of Pain and Symptom Management, 60*(4), 754–764. [\[CrossRef\]](#)
- Rhee, J. Y., Garralda, E., Namisango, E., Luyirika, E., de Lima, L., Powell, R. A., Robinson, C. A., & Centeno, C. (2018). Factors affecting palliative care development in Africa: In-country experts' perceptions in seven countries. *Journal of Pain and Symptom Management, 55*(5), 1313–1320.e2. [\[CrossRef\]](#)
- Rhee, J. Y., Garralda, E., Torrado, C., Blanco, S., Ayala, I., Namisango, E., Luyirika, E., de Lima, L., Powell, R. A., & Centeno, C. (2017). Palliative care in Africa: A scoping review from 2005–16. *Lancet Oncology, 18*(9), e522–e531. [\[CrossRef\]](#)
- Rosa, W. E., Finlayson, C. S., & Ferrell, B. R. (2020). The cancer nurse as primary palliative care agent during COVID-19. *Cancer Nursing, 43*(6), 431–432. [\[CrossRef\]](#)
- Sargeant, J. M., & O'Connor, A. M. (2020). Scoping reviews, systematic reviews, and meta-analysis: Applications in veterinary medicine. *Frontiers in Veterinary Science, 7*, 11. [\[CrossRef\]](#)
- Sucharew, H., & Macaluso, M. (2019a). Methods for research evidence synthesis: The scoping review approach. *Journal of Hospital Medicine, 14*(7), 416–418. [\[CrossRef\]](#)
- Tuominen, L., Stolt, M., Meretoja, R., & Leino-Kilpi, H. (2019). Effectiveness of nursing interventions among patients with cancer: An overview of systematic reviews. *Journal of Clinical Nursing, 28*(13–14), (2401–2419). [\[CrossRef\]](#)
- Verdejo, C., Tapia-Benavente, L., Schuller-Martínez, B., Vergara-Merino, L., Vargas-Peirano, M., & Silva-Dreyer, A. M. (2021). What you need to know about scoping reviews. *Medwave, 21*(2), e8144. [\[CrossRef\]](#)
- Wai-Chan, S. (2017). *International research collaboration creates higher impact*. SAGE Publications.
- World Health Organization (2020). *Palliative Care*.
- World Health Organization African region (2022). *World Cancer Day, 2022*.
- Zubizarreta, E. H., Fidarova, E., Healy, B., & Rosenblatt, E. (2015). Need for radiotherapy in low and middle income countries – The silent crisis continues. *Clinical Oncology, 27*(2), 107–114. [\[CrossRef\]](#)

Supplementary Table 1.
Details of the Articles Included in the Review (n=16)

No	Author (year) Country Where the Study Was Conducted	Journal	Purpose	Design	Population/Unit of Analysis		Data Collection Method	Major Findings
					(Sampling)	Sample Size		
1	Ndiok and Ncama (2021) Nigeria	International Journal of Nursing Practice	To identify barriers and benefits in establishing a model for integration of palliative care of cancer patients in daily clinical practice in tertiary health institutions	Interpretive paradigm	Four stakeholders and 19 nurse managers from two settings (Purposive sampling) n=23	In-depth interviews and focus group discussion (Semi-structured interview guides) Thematic analysis	Barriers identified in relation to integrating palliative care in daily clinical practice included lack of hospital policies about palliative care activities, cultural influences, denial or rejection of diagnosis by patients, inappropriate attitude of health care workers, patients failing to keep check-up appointments and financial implications of setting up a dedicated palliative care team.	
2	Akpan-Idiok et al., (2020) Nigeria	World Journal of Clinical Oncology	To determine the burden experienced and coping strategies among caregivers of advanced cancer patients	Descriptive cross-sectional	Informal family caregivers providing services to patients diagnosed with advanced cancer receiving treatment (Convenience sampling)	Not clear	Most of the caregivers experienced a severe and moderate burden of care, 46% and 37.2% respectively. A strong association between caregivers' level of burden and coping strategies ($P = 0.030$) was found.	
3	Kusi et al., (2020) Ghana	PLOS ONE	To explore and describe the caregiving motivations and experiences among family caregivers of patients living with advanced breast cancer.	Exploratory descriptive phenomenological	n=250 Caregivers of women diagnosed with advanced breast cancer (Purposive sampling) n=15	(Researcher- developed structured questionnaire, Zarit Burden Interview, modified Coping Orientation to Problems Experienced (COPE) Inventory) Descriptive statistics In-depth, semi- structured qualitative interviews (Semi-structured interview guide) Thematic analysis	Family caregivers were the key agents for the management of symptoms such as a malignant wound, pain, and lymphedema in the home due to a lack of formal support services.	
4	Mensah et al., (2020) Ghana	Supportive Care in Cancer	To explore the experiences of husbands of women diagnosed with advanced breast cancer, highlighting their stressors and the resources they rely on to cope	Exploratory descriptive qualitative	Husbands of women diagnosed with advanced breast cancer (Purposive sampling) n=15	In-depth interviews (Semi-structured interview guide) Thematic analysis	The burdens associated with the husband's primary caregiving roles threatened the marriage, their relationships with others, work, and finances. Coping mechanisms included acceptance, marital obligation and commitment to marital vows, social support, and spirituality.	

(Continued)

Supplementary Table 1.
Details of the Articles Included in the Review (n=16) (Continued)

No	Author (year) Country Where the Study Was Conducted	Journal	Purpose	Design	Population/Unit of Analysis		Data Collection Method	Major Findings
					(Sampling)	Sample Size		
5	Onsongo, L (2020) Kenya	Pain Management Nursing	To explore barriers to cancer pain management among nurses caring for oncology patients in Kenya	Focused ethnographic	Nurses working in both the oncology and private units providing direct care to cancer patients (Purposive, snowball sampling) n=25	Semi-structured interviews and observations (Not clear) Qualitative content analyses	Organizational, cognitive, professional and patient/family related barriers to cancer pain management were noted. Barriers such as lack of accessibility to pain management guidelines and training, professional collaboration, restrictive dispensing guidelines, and opioid related fears were identified.	
6	Bonsu and Ncama (2019) Ghana	PLOS ONE	To develop a model to facilitate the integration of breast cancer prevention and early detection into cancer palliative care	Not clear	Women diagnosed with advanced breast cancer, their first degree relatives, micro-communities and clinicians working in a palliative care setting total sample (Purposive sampling) n=102	Interviews Questionnaire Thematic analysis and descriptive statistics	Six key concepts synthesized from the data were used to develop the model: initiate and sustain breast cancer prevention and early detection program, collaboration of health professionals, patients, families and micro- communities, conducive environment of the health care facility and needed resources, actions, services, and lastly diffusing innovation into the community through agents.	
7	Kizza and Maritz (2019) Uganda	Supportive care in cancer	To assess family caregivers' (FCGs) knowledge and self-efficacy levels (SE) for pain management among advanced cancer patients while at home in a resource- limited setting.	Descriptive cross sectional survey	Family care givers of advanced cancer patients (Not clear) n=284	Interviewer-administ ered questionnaire (Chronic Pain Self-efficacy Scale) Descriptive statistics	The majority of the FCGs had low knowledge (52.1%), but expressed higher SE (52.5%). Poor self-rated health was significantly associated with low knowledge levels (OR = 1.75; 95% CI 1.024–2.978, p = 0.041). SE was significantly associated with perceiving a low impact of caregiving on health (OR = 1.55; 95% CI 1.074–2.239, p = 0.019), hours of caregiving per week (OR = 0.52; 95% CI 0.315–0.854; p = 0.01) and receiving organisational support (OR = 0.388; 95% CI 0.222–0.679; p = 0.001).	

(Continued)

Supplementary Table 1.
Details of the Articles Included in the Review (n=16) (Continued)

No	Author (year) Country Where the Study Was Conducted	Journal	Purpose	Design	Population/Unit of Analysis		Data Collection Method		Major Findings
					(Sampling) Sample Size	Analyses	(Instrument) Analyses	Analyses	
8	Ndiok and Neama (2019) Nigeria	Scandinavian Journal of Caring Science	To examine the effect of home visiting and resources for instituting the programme as a follow-up strategy in integration of palliative care in daily clinical practice by nurses caring for cancer patients in Nigeria, and on how it can be used to improve care for cancer patients.	Qualitative	Nurse managers and cancer patients (Purposive sampling) n=30	Focus group discussion and interviews (Interview guide) Qualitative content analysis	Participants agreed that visiting cancer patients would ease many problems commonly encountered by patients. Most patients requested that home visiting nurses should also deliver their medication. A need for resources included hospital policies, adequate staff strength, staff commitment and funding were identified.		
9	Maree and Potgieter (2018) South Africa	Asia-Pacific Journal of Oncology Nursing	To describe the perspectives and experiences of South African nurses caring for patients receiving palliative chemotherapy	Qualitative descriptive	Nurses (Purposive sampling) n=11	Qualitative interviews (Not clear) Qualitative content analyses	The participants believed that patients consenting to palliative chemotherapy were clinging to false hope. They were also of the opinion that family members pressurize patients to consent to treatment. The participants experienced palliative chemotherapy positively, especially when an improvement in the patients' quality of life or pain relief was evident.		
10	Ndiok and Neama (2018) Nigeria	Scandinavian Journal of Caring Science	To assess the care needs of oncology in-patients and clinic attendees or families in two tertiary health institutions.	Descriptive survey	Patients or family member representatives of patients diagnosed with cancer between January 2014 and September 2016 (Not clear) n=429	Not clear	The most common needs of patients were information on possibilities of treatment and side effects (92.8%), diagnosis (91.6%), testing (91.1%) and physical symptoms (90.9%). Other needs, were psychological, spiritual and financial needs, related to factors causing distress to patients and their families.		

(Continued)

Supplementary Table 1.
Details of the Articles Included in the Review (n=16) (Continued)

No	Author (year) Country Where the Study Was Conducted	Journal	Purpose	Design	Population/Unit of Analysis		Data Collection Method	Major Findings
					(Sampling)	Sample Size		
11	Potgieter and Maree (2018) South Africa	International Journal of Palliative Nursing	To describe what motivates cancer patients, treated at a private cancer care centre in Port Elizabeth, South Africa, to undergo palliative chemotherapy and how the patients and their families experienced this treatment	Descriptive qualitative	Cancer patients (Purposive sampling) n=22	In-depth interviews (Not clear) Qualitative content analysis	Despite experiencing severe side effects from the treatment, participants thought that their quality of life improved as a result of the treatment. Family members supported the patients' decisions to undergo palliative chemotherapy. The family members were aware that the sick person experienced side effects, but it does not appear they were aware of the full extent of this problem.	
12	Combrink and Maree (2016) South Africa	Journal of Hospice & Palliative Nursing	To explore how patients treated at a private cancer care setting in the Southern Cape region of South Africa and their families experience the transition from palliation with anticancer treatment to palliation without anticancer treatment.	Exploratory qualitative	Cancer patients and their families (Purposive sampling) n=22	In-depth interviews (One opening question) Tesch's approach	The patients and their families experienced shock and severe suffering. Both the patients and families experienced various losses. They also had to cope with high symptom burdens, including uncontrolled pain. Some patients and family members were able to accept their own or their family member's impending death, whereas others hoped for the miracle of cure.	
13	Lazenby et al (2016) Botswana	Cancer Nursing	To describe symptom burden and functional dependencies of cancer patients using the Memorial Symptom Assessment ScaleYShort Form (MSAS-SF) and Enforced Social Dependency Scale (ESDS)	Cross-sectional	Cancer patients (Convenience) n=100	Researcher administered questionnaires (Memorial Symptom Assessment ScaleYShort Form (MSAS-SF) and Enforced Social Dependency Scale (ESDS)) Descriptive statistics	Sixty-four reported pain; 54, neuropathies; 51, weight loss; and 51, hunger. Most distressing symptoms were weight loss, body image, skin changes, and pain. Recreational/social role was most affected by cancer. Cronbach's for both the MSAS-SF and ESDS was .91. Variations in means for MSAS-SF and ESDS were associated with ECOG grade 2 (P G .05); the ECOG moderately correlated (0.35) with MSAS-SF (P G .01). No associations with human immunodeficiency virus status were found.	

(Continued)

Supplementary Table 1.
Details of the Articles Included in the Review (n=16) (Continued)

No	Author (year) Country Where the Study Was Conducted	Journal	Purpose	Design	Population/Unit of Analysis		Data Collection Method	Major Findings
					(Sampling)	Sample Size		
14	Lakew et al. (2015) Ethiopia	BMC Research notes	To assess the knowledge, accessibility and utilization of palliative care services for adult cancer patients by their perspective	Cross sectional	Adult cancer patients	n=384	Face-to-face interviews (Pretested Amharic version questionnaire) Not clear	More than 62.2 % respondents had previous knowledge for cancer PC services. About 9 out of 10 (89.8 %) respondents reported problems on accessibility of PC services. However, 69% had palliative care services from the centre.
15	Tamannai et al. (2015) Cameroon	International Journal of Palliative Nursing	To gain a better understanding of the needs of patients and their families visited by a children's palliative care nurse in Cameroon and to identify aspects of the service that can be improved	Qualitative	Patients with Burkett's Lymphoma, caregivers and nurses (Not clear) n=12		Semi-structured interviews (Topic guides) Thematic analyses	Financial aid, general disease improvement and prayers were the directly expressed needs of service recipients. Specialist training in children's PC was the main need expressed by the nurses. Open communication about clinical status and treatment failure, more detailed counselling, more distraction for patients and respite for carers were identified as underlying needs.
16.	Akpan-Idiok and Anarado (2014) Nigeria	Pan-African Medical Journal	To study the informal caregivers' perceptions of burden of caregiving to cancer patients attending University of Calabar Teaching Hospital, Calabar	Cross-sectional descriptive survey	Cancer caregivers (Purposive sampling)	n=210	Not clear (A researcher developed questionnaire and standardized Zarit Burden Interview scale (ZBIS)) Descriptive statistics	The burden levels experienced by the caregivers were as follows: severe (46.2%), moderate (36.2%) and trivial of no burden (17.6%). The forms of burden experienced were physical (43.4%), psychological (43.3%), financial (41.1%) and social (46.7%), quite frequently and nearly always. Psychological and social forms of burden had the highest weighted score of 228 in terms of magnitude of burden.