

## REVIEW

# Symptoms, concerns, and experiences of women living with and beyond breast cancer in Africa: A mixed-methods systematic review

Eme O. Asuquo  | Kate Absolom  | Bassey Ebenso | Mathew J. Allsop

Leeds Institute of Health Sciences, University of Leeds, Leeds, UK

**Correspondence**

Eme O. Asuquo, Leeds Institute of Health Sciences, University of Leeds, Leeds, UK.  
Email: [umeoas@leeds.ac.uk](mailto:umeoas@leeds.ac.uk)

**Abstract**

**Objective:** A mixed-methods systematic review to determine reported symptoms, concerns, and experiences of women living with and beyond breast cancer in Africa.

**Methods:** Literature searches were conducted in Medline, Embase, PsycINFO, Global Health, Web of Science, CINAHL, and the Cochrane Library. Quantitative and qualitative studies that comprised study populations of women with breast cancer from countries in Africa, detailing symptoms, concerns, and experiences of living with and beyond breast cancer were included. Inductive framework analysis was applied to organise existing literature with the Adversity, Restoration, and Compatibility framework and quality was assessed using the Mixed Methods Appraisal Tool.

**Results:** In total, 48 studies were included, comprising quantitative ( $n = 24$ ), qualitative ( $n = 23$ ) and mixed method ( $n = 1$ ) studies. Women reported multiple complex and burdensome symptoms at all stages of the breast cancer disease trajectory. Multiple pervasive factors influencing participants' experiences included a lack of cancer knowledge, being removed from decision-making, religion, and the presence and use of traditional medicines. Literature relating to benefit finding, understanding identity for the future, and broader perspectives of well-being was absent.

**Conclusions:** This review contributes insights and mapping of symptoms, concerns, and experiences of women with breast cancer in Africa. There is a great necessity to increase an understanding of the needs and experiences of women with breast cancer in Africa following cancer treatment, stages of remission, and longer-term monitoring and follow-up. This is required to ensure access to prompt and timely clinical and individualized supportive care for women with breast cancer in Africa.

**KEYWORDS**

Africa, breast cancer, cancer, experiences, mixed methods, oncology, quality of life, survivorship, symptoms, systematic review

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2024 The Authors. Psycho-Oncology published by John Wiley & Sons Ltd.

## 1 | BACKGROUND

Across the continent of Africa, there was an estimated cancer incidence of 1.2 million new cases and 763,843 deaths in 2022, projected to rise to 2.1 million cases and 1.4 million deaths by 2040.<sup>1</sup> Projections suggest that within 10 years, more than half of all new cancer cases will occur in low and middle-income countries.<sup>2,3</sup> The most common cancer worldwide is breast cancer, which continues to have a large impact on cancer deaths globally.<sup>4</sup> In Africa, breast cancer was the most common cancer in 2022, with an estimated 198,553 cases and 91,252 deaths, with rates projected to double by 2040.<sup>1</sup> Increases in breast cancer incidences in Africa are associated with changing economic and cultural trends across the region, including women having fewer children or having children later, reductions in activity levels, changing diets, alcohol consumption, and using skin lighteners and hormone modulators in skincare and hair products, all of which are breast cancer risk factors.<sup>2,3,5,6</sup> This is combined with increasing evidence of genetic predispositions and gene-environmental interactions leading to increased risk of breast cancer, although further research is required that is specific to countries in Africa.<sup>7,8</sup> Furthermore, cancer care in Africa is characterised by late-stage clinical presentation, limited funding, and restricted access to curative therapies.<sup>9–13</sup> These factors contribute to high mortality rates from breast cancer in the region,<sup>3</sup> with late presentation itself driven by multiple factors, including a lack of or unaffordability of screening services.<sup>14,15</sup>

Despite the high prevalence of breast cancer in Africa, there remains an urgent need for research to guide effective breast cancer control strategies.<sup>16</sup> Recently a pathway has been derived from qualitative research to depict the trajectory of breast cancer.<sup>17</sup> The pathway includes stages of cancer experienced by patients from pre-diagnosis to survivorship and, for some women, recurrence. Survivorship in the context of the cancer pathway is aligned with the remission of disease following a period of treatment. However, in Africa and more broadly low and middle-income countries, notions of survivorship remain an emerging phase of the cancer pathway. In Africa, health systems have limited capacity to provide access to quality, long-term health care.<sup>18</sup> This includes the physical, mental, emotional, social, and financial effects of cancer that begin at diagnosis and continue through treatment and beyond.<sup>19</sup> An individual is considered a cancer survivor from the time of diagnosis, and throughout the rest of his or her life, inclusive of people living with, and free of, cancer.<sup>19</sup> Survivorship experiences also include issues relating to follow-up care (including regular health and wellness check-ups), late effects of treatment, cancer recurrence, secondary cancers, and quality of life,<sup>19</sup> alongside care and support provided by family members, friends, and caregivers.<sup>19</sup> These factors, alongside the multi-factorial nature of the experience of living with cancer, have sought to be captured in a recently developed ARC (Adversity, Restoration, and Compatibility) Framework.<sup>20</sup> The ARC framework is an overarching synthesis of how people make sense of their cancer experience that can be used as a tool to define and operationalise the term living with and beyond cancer and can guide the development of supportive cancer care services.

Understanding and developing cancer care in Africa is a research priority<sup>21</sup> yet there is currently limited research to understand the experience of those living with and beyond cancer in this region.<sup>22,23</sup> In particular, to the best of our knowledge, there has been no synthesis of the existing literature on living with and beyond breast cancer in Africa. This is of particular importance given a strong gender dimension underpinning, for example, cancer stigma which can lead to discriminatory attitudes that prevent women from accessing cancer services.<sup>24</sup> This review sought to:

- Synthesise existing literature on the physical and experiential aspects of living with breast cancer in Africa.
- Draw together evidence outlining the symptoms, concerns and experiences of women living with and beyond breast cancer in Africa.
- Guide locally appropriate responses and advocacy to ensure that women with breast cancer have access to clinical and supportive care to maximise the length and quality of their lives.

## 2 | METHODS

This systematic review was registered on the OSF platform (<https://doi.org/10.17605/OSF.IO/YSB3F>). While originally planned as a scoping review, the review extended to a more comprehensive, systematic review. Aligned with this approach, the review findings are reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.<sup>25</sup>

### 2.1 | Selection criteria

Our review sought to identify and synthesise reported symptoms, concerns, and experiences of women living with and beyond breast cancer in Africa, alongside determining the extent of research approaches used, and the methodological quality of existing primary data. Initial scoping searches determined low numbers of published research, so eligibility criteria remained broad (as specified in Table 1).

### 2.2 | Search strategy

A search strategy was developed using a combination of keywords and medical subject headings with search terms developed around the topics of 'breast cancer', 'Africa', 'living with or experience' or 'survivor'. Search strategies were optimised to identify literature within each of the following databases: MEDLINE (Ovid), EMBASE (Ovid), PsycINFO, Global Health, Scopus, Web of Science, CINAHL, and the Cochrane Library and searches were carried out in May 2021 and updated in February 2023. Key search terms were developed around each of the search elements outlined in Table 1 (see Supplementary Files 1 and 2 for the full search strategies), with support from an information specialist at the University of Leeds.

## 2.3 | Data extraction and analysis

Literature identified from databases was exported to Endnote reference management software and duplicates were removed. Title and abstracts were screened (EOA), with discussion with a second reviewer (MJA) where there was uncertainty around inclusion. The full-text review was undertaken by two reviewers (EOA and MJA) with disagreements around the inclusion of a study decided by two additional reviewers (KA and BE). Data extraction for included articles was completed using Microsoft Excel.

## 2.4 | Assessment of risk of bias in the included studies

The quality of the included studies was assessed using the 2018 version of the Mixed Methods Appraisal Tool (MMAT).<sup>25</sup> This tool is used to assess the methodological quality of five categories of studies: qualitative, quantitative randomized controlled trials, quantitative non-randomized, quantitative descriptive, and mixed methods. For each study design, there was a methodological quality checklist consisting of 5 items. All the items were categorised as either 'Yes' 'No', or 'Can't tell'. Two authors (EOA and MJA) assessed the risk of bias in the included studies and differences were resolved through discussion. Quality appraisal was not used to determine study inclusion.

TABLE 1 Eligibility criteria.

Search element	Inclusion criteria	Exclusion criteria
Population	<ul style="list-style-type: none"> <li>Studies that involved research reporting experiences of women in African countries, or where data relating to African countries can be extracted</li> <li>Studies that included women with breast cancer</li> </ul>	<ul style="list-style-type: none"> <li>Studies that focused on cancers other than breast cancer</li> <li>Studies where breast cancer data cannot be disaggregated</li> <li>Studies focused on the natural sciences relating to breast cancers (e.g., genetic risk factors)</li> <li>Studies focusing on the diagnosis of breast cancers</li> </ul>
Intervention	<i>None applied</i>	<i>None applied</i>
Outcomes	<ul style="list-style-type: none"> <li>Studies reporting on symptoms, concerns and experiences of women living with and beyond breast cancer</li> </ul>	<i>None applied</i>
Study type	<ul style="list-style-type: none"> <li>Primary data (quantitative, qualitative, and mixed methods studies)</li> <li>Studies published in English</li> </ul>	<ul style="list-style-type: none"> <li>Systematic reviews, grey literature, conference papers, opinions, editorials, theses, dissertations, and unpublished studies</li> </ul>

TABLE 2 The ARC framework.<sup>20</sup>

Adversity: realizing cancer	Restoration: readjusting to life with cancer	Compatibility reconciling cancer
Life changing impact of diagnosis	Disease knowledge and experience	Benefit finding
Disclosing and talking about cancer	Changes in outlook	Offering peer support and willingness to help others
Shifts in relationship	Confidence in Healthcare	Identity for the future
Impact of treatment	Appraising illness and values in life	Broader perspectives of wellbeing
Hope for the future	Lifestyle changes	
Pathway to diagnosis	Importance of social support	
Effects of symptoms		
Lack of support		

## 2.5 | Data analysis

Narrative synthesis was used to derive the key findings across quantitative and qualitative studies.<sup>26</sup> An inductive framework analysis was applied to align the study findings of the quantitative and qualitative studies with the ARC (Adversity, Restoration, Compatibility) framework.<sup>20</sup> The ARC framework is built from studies of personal experience, questioning the notion of chronicity associated with living with and beyond cancer and is a conceptual framework intended to translate the experience of living with and beyond cancer into meaningful insights for shaping supportive cancer care. The key components of the ARC Framework, including sub-domains under each theme, are outlined in Table 2. In addition, a summary of the key findings across the quantitative and qualitative ARC synthesis was used to provide a high-level overview of the key symptoms, concerns and experiences reported across studies (see Supplementary File 3).

## 3 | RESULTS

### 3.1 | Characteristics of included studies

A total of 13,788 studies were identified. Following the removal of 4016 duplicates, 9772 studies had their titles and abstracts reviewed, from which 206 studies were included for full-text review. Of these,

42 were found to be conference papers, and 158 did not meet the inclusion criteria and were excluded (see Figure 1).

In total, 48 studies were included, comprising quantitative<sup>28-51</sup> ( $n = 24$ ), qualitative<sup>52-74</sup> ( $n = 23$ ) and mixed methods<sup>75</sup> ( $n = 1$ ) studies. All included studies were published between 1998 and 2022 and represented data from countries ( $n = 10$ ) in Africa and covered the five regions of Africa (central, eastern, southern, western, and northern) with at least one study from each region. Their distribution includes West Africa (Nigeria ( $n = 12$ ) (quantitative studies ( $n = 4$ )<sup>33,35,41,50</sup>), (qualitative studies ( $n = 8$ )<sup>53-56,58,60,66,71</sup>); Ghana ( $n = 11$ ) (quantitative studies ( $n = 6$ )<sup>31,32,36,39,48,51</sup>), (qualitative studies ( $n = 5$ )<sup>57,61,63,69,72</sup>); Mali ( $n = 1$ ) (quantitative studies ( $n = 1$ )<sup>29</sup>); Central or Middle Africa (Cameroon ( $n = 1$ ) (quantitative studies ( $n = 1$ )<sup>28</sup>), Southern Africa (South Africa ( $n = 9$ ) (quantitative studies ( $n = 1$ )<sup>34</sup>), (qualitative studies ( $n = 8$ )<sup>59,62,64,65,67,68,70,73</sup>)), East Africa (Ethiopia ( $n = 9$ ) (quantitative studies ( $n = 7$ )<sup>30,37,40,42,44,46,47</sup>) (qualitative studies ( $n = 1$ )<sup>74</sup>) (mixed method studies ( $n = 1$ )<sup>75</sup>); Zambia ( $n = 1$ ) (qualitative studies ( $n = 1$ )<sup>52</sup>); Kenya ( $n = 1$ ) (quantitative studies ( $n = 1$ )<sup>49</sup>) and North Africa (Sudan ( $n = 2$ ) (quantitative studies ( $n = 2$ )<sup>38,45</sup>); Morocco ( $n = 1$ ) (quantitative studies ( $n = 1$ )<sup>43</sup>)). The mean age of participants reported across studies ranged from 39.9 to 58.5 years, with participant ages ranging from 21 to 99 years. For studies where the stage of cancer was reported, it was common for participants to predominantly report living with either stage 3 or 4. The included mixed methods study adopted a systematic qualitative participatory approach as such findings fit into

the qualitative studies and there was no need to also analyse it as a quantitative study. The sample size of the studies is as follows: for the qualitative studies they ranged between 3 and 32 participants per study, the mixed methods study involved 69 participants, while the quantitative study ranged between 60 and 1463 participants (Supplementary File 7: Table 3).

### 3.2 | Quality of included studies

Broadly, most included studies fulfilled the criteria outlined in the MMAT tool. All 23 qualitative studies and the only mixed methods study fulfilled all the criteria. Only one of the 24 quantitative studies, had a high risk of non-response bias. Also, for three of the 24 quantitative studies, we could not determine if the sample size was representative of the target population (see Supplementary File 4).

### 3.3 | Summary of findings from the quantitative research

Quantitative studies were largely conducted in tertiary, teaching or government hospitals or a combination.<sup>28-51</sup> The aim of studies varied from those determining: (i) the quality of life of breast cancer patients<sup>40,41,43,45</sup> (typically explored using the Functional Assessment of Cancer Therapy-Breast,<sup>41,50</sup> European Organisation for Research

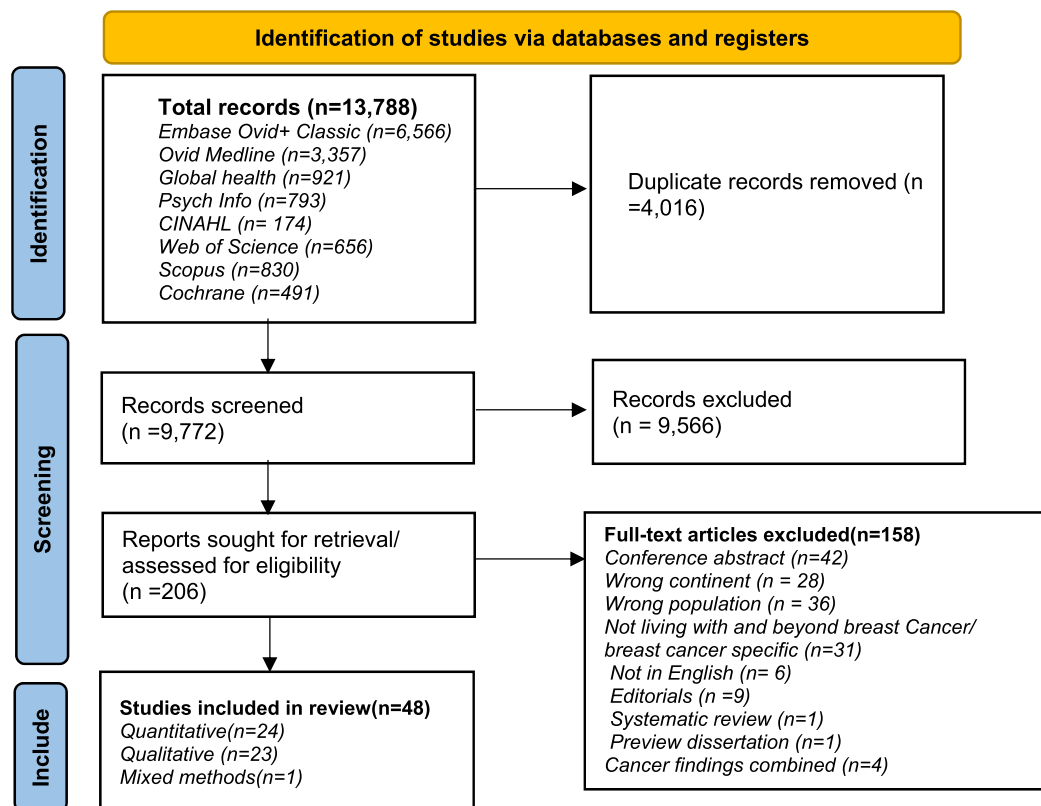


FIGURE 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow chart.<sup>27</sup>

and Treatment of Cancer for cancer and breast cancer patients respectively (EORTC QLQ-C30 and EORTC QLQ-BR23),<sup>37,38,43,44</sup> the Brief-COPE,<sup>32,50</sup> and the Mini-Mental Adjustment to Cancer Scale,<sup>35</sup> see (Supplementary File 7: Table 3), (ii) coping strategies of women with breast cancer,<sup>32,46,50</sup> (iii) psychological, psychosocial concerns, information needs, unmet needs, and fears,<sup>31,33-36,39,42,47-49</sup> and (iv) women's experiences with the health systems.<sup>28-30,51</sup> Findings from studies are presented below, aligned with the ARC framework (see Supplementary File 5).

### 3.3.1 | Adversity: Realising cancer

Delays in a breast cancer diagnosis ranging from more than 3-12 months were common, including instances of more than 2 years. Delays were associated with health system factors (i.e., inaccurate diagnosis by health care provider, non-referral to oncologists, no specialists available, no appointments/long waiting times) and individual factors (i.e., fear of cancer and surgery, lack of knowledge of signs and symptoms, preference for complementary and alternative medicine (CAM), the cost of treatment, and distance to a health facility).<sup>28-31,41</sup> Many women used more than one type of CAM with almost half of them using it before seeking medical care.<sup>28-31</sup> Participants reported feelings of being worried, frightened, shocked about their diagnosis, afraid of death, depressed and anxious about their illness.<sup>31-36,42</sup> Across studies, participants also reported being fearful of cancer spreading to other parts of their bodies, reoccurrence, type of treatment and treatment side effects/adverse effects, cost of treatment and not having enough money for treatment, distance and transport to treatment, stigmatisation, in addition to body image fears, loss of self-esteem, feeling less feminine, worries about their families and their marriages ending in divorce, job loss and missing appointments.<sup>28,30-36,39</sup>

During and after treatment, commonly experienced physical symptoms included fatigue, trouble sleeping, pain, burnout, sexual dysfunction, appetite loss, diarrhoea, constipation, nausea, and vomiting, alongside worry relating to body image and hair loss.<sup>32,37,38,40,42</sup> Studies reported that women generally had low quality-of-life scores across multiple domains during treatment cycles<sup>37,38,41,44</sup> and that younger women, in particular, were likely to experience reduced emotional well-being.<sup>41</sup> For participants accessing healthcare, instances of health workers lacking empathy were reported, indicating adequate emotional support was not received, alongside a lack of information about their treatment (pre and post).<sup>31,35,39,43,45-47,49</sup> Commonly reported needs of participants across studies included those relating to information (e.g., diagnostic, treatment and management information, physical care information, psychosocial information, and disease-specific and prognosis information),<sup>35,39,47-49</sup> sexuality,<sup>35,39</sup> psychological health<sup>49</sup> and religion.<sup>35,39</sup> Many studies showed that most of the women had financial issues and were unable to pay for treatment, transport, and other costs associated with their cancer.<sup>30,38,39,43,45,46</sup>

### 3.3.2 | Restoration: Readjusting life with cancer

Participants strived for normalcy after cancer using active and passive coping strategies.<sup>32,45,46,50</sup> In one study, religious coping was the most commonly used active coping strategy.<sup>32</sup> Support was gotten from one or multiple sources (e.g., children, spouses, family, friends, religious bodies, churches, the community, employers, and support groups). Support included financial, companionship (e.g., to hospital appointments), emotional (e.g., religious organisations) and psychological and counselling support from health care providers.<sup>31-33,42,45</sup> As regards confidence in healthcare, women who had a good relationship with their doctor and were involved in decision-making regarding their treatment had higher overall quality of life.<sup>51</sup>

### 3.3.3 | Compatibility: Reconciling cancer

There was a lack of literature that aligned with the compatibility construct of the ARC Framework.

## 3.4 | Summary of findings from the qualitative research

Qualitative studies were conducted across a range of settings including tertiary, teaching and government hospitals,<sup>52,54-59,61-66,68-70,72,73,75</sup> non-governmental organisations,<sup>60,67</sup> private hospitals<sup>53,71</sup> and the community.<sup>74</sup> Studies sought to understand the lived experiences of women with breast cancer<sup>52,53,55,57,61-63,65,66,72,75,76</sup> including cultural and social influences and support received and from whom,<sup>54,60,64,67,71,73,74</sup> alongside understanding patterns of initial symptoms and their management.<sup>56,58,59,68,69</sup> (Supplementary File 7: Table 3). The findings of studies as aligned with the ARC framework are presented below (see Supplementary File 6).

### 3.4.1 | Adversity: Realising cancer

Many women did not realise changes in their breasts could be signs of breast cancer and the lack of knowledge about signs and symptoms of breast cancer contributed to delays in receiving a diagnosis,<sup>52-56,66,75</sup> along with the distance to the cancer centre as many women lived far away.<sup>59</sup> Breast cancer symptoms worsened before women began to seek information about their disease and identify healthcare providers.<sup>56,58,75</sup> Some women blamed themselves for not seeking healthcare earlier; listening instead to what they subsequently viewed as poor advice from family, friends, and pastors.<sup>52,55,56,58,64,66,71</sup> Across some studies, women believed that breast cancer was a disease inflicted by an enemy, a spiritual attack, also called an arrow, and could only be treated with traditional medicine.<sup>54,56,58</sup> Traditional approaches were also thought to be better for their pain and extending life<sup>73,74</sup> and often they did not

inform their healthcare providers that they were using CAM.<sup>73</sup> In addition, many women attended churches and prayer houses, assuming their breast cancer to have a spiritual cause or be a charm, with some refusing medical treatment, instead fasting, praying, drinking holy water, and using holy mud or soil, only engaging with cancer treatments when their cancer had progressed.<sup>58,60,65,75</sup> In a study conducted in Ethiopia, breast cancer was reported to potentially be caused by *mich* (an Ethiopian ethnomedical category roughly equivalent to 'bad air').<sup>75</sup>

Studies commonly reported experiencing health service-related barriers to appropriate care (e.g., health professionals misdiagnosing their breast cancer, even after multiple attendances at health facilities<sup>52,54–56,59–61,63,64</sup>). Additional barriers contributing to delays in accessing care included language barriers where English was not a first language and the need for translators to communicate with health professionals.<sup>59</sup> Furthermore, many women who had no formal education were unable to read information pamphlets about breast cancer<sup>59</sup> and were unsure of the relevance of information sought online.<sup>66</sup>

A diagnosis of breast cancer changed the lives of women, with fear of death and distress about possible treatment processes commonplace. Participant accounts include experiences of emotional turmoil, shock, depression, sadness, and disbelief.<sup>52,53,56,57,60–63,65–67,75</sup> Many participants subsequently realised that many of their initial views about breast cancer were not correct (e.g., it only affects older women,<sup>53</sup> is untreatable,<sup>75</sup> associated with dying<sup>52,56,61,75</sup>). Women also reported uncertainty around the impact of breast removal and treatment(s) on the remainder of their lives, whether the cancer would spread,<sup>77</sup> concerns about recurrence<sup>68</sup> and feeling cancer is a shameful and dangerous disease.<sup>60,61,63,68</sup>

Many women did not feel comfortable revealing their cancer diagnosis to others because of fears of stigma and perceptions about breast cancer and were selective with disclosure. Where a cancer diagnosis was disclosed, many participants reported feeling stigmatised by their family, community, and church<sup>52,56,57,61,62,64,71,72</sup>; in one study a family believed breast cancer to be contagious and prevented a participant from feeding her son and provided her with a different set of plates and cutlery.<sup>61</sup>

Before commencing treatment, many women felt there was a need to get cancer out of them, with fear that it would otherwise take over them and they would have no control of it.<sup>65</sup> During treatment, many women experienced symptoms and side effects, including fatigue, nausea and vomiting, loss of appetite, altered food taste, diarrhoea or constipation, skin discolouration, loss of nails, swollen feet, bloated, oral mucositis, anorexia, alopecia, sore mouth, weight gain or loss, pruritus vulvae, insomnia or drowsiness, and dysphagia.<sup>52,55,57,62,72,75</sup> Symptoms and the experience of living with cancer were pervasive in participants' lives. Wives and mothers were no longer able to perform their roles,<sup>52,57,62,68,71</sup> sexual activities were affected by the loss of libido and cessation of menses in some premenopausal women,<sup>66</sup> and participants reported feeling angry and aggressive.<sup>66</sup> Participants reported feeling a mix of being incomplete, no longer feeling like women, unfeminine, abnormal, alien, uncomfortable and artificial, parts of them lost and their new

post-cancer bodies as foreign and not part of them.<sup>52,55,57–59,63,65,70</sup> Many participants avoided social interactions because they did not want to have to explain changes to their bodies.<sup>60,72</sup> Despite some women feeling despair, many expressed hopes that they will not die from breast cancer, often citing faith in God and a greater appreciation of 'God's gift of life'.<sup>54–56,67,68,71</sup> Many women did not report receiving adequate support from their healthcare providers and were not fully informed about their diagnosis, treatment, and post-treatment options. Many felt their doctors had told them about their diagnosis and treatment in a causal manner and they were not permitted to participate in treatment decisions.<sup>52,53,55,59,60,63,65,66,72</sup>

### 3.4.2 | Restoration: Readjusting life with cancer

Some women tried to normalize their experiences, comparing them to other diseases.<sup>65,68</sup> Across numerous studies, participants drew on religion to cope with their disease, with faith in God increasing for some women.<sup>54,55,60,67–71</sup> Adaptation to the sequelae of breast cancer included wearing a wig,<sup>61,68</sup> alongside those who had undergone a mastectomy using folded rags, handkerchiefs, and gauze in their brassier to act as a breast prosthesis.<sup>61</sup> Social support played a role in helping women cope with their cancer. Women received support in cash and kind from members of their community, religious organizations, workplaces, and the health facilities that they attended.<sup>52–56,60,62,66–72</sup>

### 3.4.3 | Compatibility: Reconciling cancer

Many women felt there had been benefits to their cancer experience. They reported spiritual and personal growth and that they were special and chosen for a purpose, enabling them to have a more positive experience with God.<sup>68,70</sup> Women reported feeling they had become wiser and stronger and better able to cope with the fear and distress that come with breast cancer, alongside having a better appreciation of life.<sup>65,68</sup> Another approach to reconciling their experience of cancer was downward social comparison<sup>68</sup> comparing their own experiences to other women in worse situations with a cancer diagnosis.<sup>68</sup> Women reported that their experience enabled them to empathise with and encourage other women with cancer, whilst encouraging women without cancer to engage in preventative measures and engage with breast cancer screening services.<sup>65,68</sup>

## 4 | DISCUSSION

This study draws together evidence on symptoms, concerns, and experiences across all phases of the cancer trajectory for women living with and beyond breast cancer in Africa. These include the need to address a lack of knowledge about breast cancer among women and health providers, alongside its signs and symptoms. The lack of awareness on the part of women and health providers



resulted in numerous personal and health system delays in diagnosis and treatment. Many women felt uninformed about important aspects of their care and treatment at the pre- and post-treatment phases and were not satisfied with their relationship with their healthcare providers. Participants across the included studies commonly reported shock at their diagnosis and a need for psychological and social support. Support was often sought from partners, family, and communities, including financial and spiritual support. Multiple factors were identified that influenced participants' behaviour and decision-making, including religion and spirituality, body image, stigma and discrimination, and cultural beliefs about the causes and transmissibility of breast cancer. Several studies outlined participants who used traditional medicines, with some participants using these in combination with Western medication. The findings from this review can be used to explore how health services can adapt and develop breast cancer survivorship care in Africa to meet the multitude of symptoms and concerns highlighted in this review.

A dominant theme throughout the studies was a lack of information and support. This caused delays for most of the women before diagnosis and continued to hinder access to timely care following treatment. These delays continue to be a major factor hampering breast cancer survival in Africa and low and middle-income countries beyond the region.<sup>78</sup> For those accessing treatment, concerns about reoccurrence were common, with no reporting of post-treatment planning. To prepare women for active treatment to long-term survivorship, the Commission on Cancer and the Institute of Medicine outline that women should have a survivorship care plan.<sup>79</sup> This involves providing people with a complete treatment summary and a comprehensive plan for follow-up for those completing their primary cancer treatment. A Survivorship Care Plan would also be provided to the patient's primary care providers. Such a plan would inform patients (and their providers) of the long-term effects of cancer and its treatment, identify psychosocial support resources in their communities, and provide guidance on follow-up care, prevention, and health maintenance.<sup>19,79</sup> Survivorship Care Plans are very welcome by patients but not all healthcare systems are willing and able to implement them,<sup>80,81</sup> and they are underdeveloped in the context of low- and middle-income countries.<sup>82,83</sup> This is particularly problematic post-treatment, where a need for survivorship education increases, with long-term treatment effects and limited training in their management across the healthcare workforce.<sup>84–86</sup> The adaptation and implementation of patient-centred approaches that prioritize each patient's individual needs, and seek to support timely communication and guidance to women with breast cancer, their families and the health workers who care for them should be explored in future breast cancer research in Africa.<sup>87,88</sup>

The application of the ARC framework guided the organisation and mapping of symptoms, concerns, and experiences of women with breast cancer in Africa. By aligning existing literature with the ARC framework, it is possible to identify gaps in the evidence base. Broadly, the ARC framework themes of adversity and restoration captured the foci of most qualitative studies included in the review. Notably, literature outlining findings relevant to the *Compatibility*

theme was lacking. This suggests limited literature relating to benefit finding, understanding identity for the future, and broader perspectives of wellbeing. This may be a product of oncology care in Africa, where presentation is often advanced, intense symptom management is required, and limited provision constrains access to palliative care.<sup>89,90</sup> The ARC Framework provided a useful template for organising the literature within this review but may require augmentation to reflect the experiences of women with breast cancer in Africa. Possible additional subthemes might include sociocultural beliefs, intersectionality, the use of CAM, and language barriers faced when accessing health facilities.

## 4.1 | Clinical implications

This review has synthesised existing literature on the physical and experiential aspects of living with breast cancer in Africa. Drawn together, this evidence can inform the planning of service responses alongside advocacy to ensure that women with breast cancer receive access to clinical and supportive care that can maximise the length and quality of their lives. This study has highlighted areas that can be explored, including the role of cancer survivorship plans to support the identification of needs and targeting of support for women with breast cancer. In addition, key areas to target future intervention development include (i) providing tailored, context-appropriate information across the whole disease trajectory to address knowledge and information needs; (ii) exploring communication skills and approaches for health workers supporting women with breast cancer that include considerations of post-treatment management, and (iii) increasing the availability and accessibility of psychosocial support for women with breast cancer across all stages of the disease trajectory. An understanding of women's experiences of living with and beyond breast cancer in Africa is key to ensuring that the needs of all women irrespective of their location are considered in the development of clinical care and services in Africa.

## 4.2 | Study limitations

A comprehensive search strategy across multiple research databases was used. However, there is a possibility that eligible studies may have been unintentionally excluded, particularly those relating to post-treatment management and support for women with breast cancer. In Africa, cancer care for women with breast cancer post-treatment, including aspects such as longer-term management, monitoring, and recurrence, appears to be lacking in the literature. Terminology around survivorship and its meaning is evolving in Africa.<sup>91</sup> While efforts were made to ensure the search strategies included all relevant terms, they may not have captured the full extent of the literature reporting relevant evidence relating to the evolving notion of breast cancer survivorship in the region. In addition, the findings were limited to the experiences of women in 10 countries in Africa. Whilst representing countries from each of the five major geographical regions of Africa, we

cannot generalise findings to the entire region. Two elements of our approach need to be considered concerning the review findings. Firstly, the review limited studies to those in the English language, so we may not fully report the breadth of findings available across the research literature. Secondly, due to resource constraints, we did not include searches of grey literature, which may have helped to reduce publication bias and increased the comprehensiveness and balance of the evidence presented.

### 4.3 | Conclusions

This review contributes insights and mapping of the symptoms, concerns, and experiences of women with breast cancer in Africa. Multiple informational, psychological, and social needs and areas for the development of care for women living with and beyond breast cancer in Africa were identified, notably during the post-treatment phase. Understanding the needs and priorities of women with breast cancer in Africa will help to ensure quality survivorship care and that every woman with breast cancer receives the right care and support to maximise the length and quality of their life.

### AUTHOR CONTRIBUTIONS

Eme O. Asuquo (EOA) drafted the manuscript, which was reviewed and supplemented by the co-authors Mathew J. Allsop (MJA), Kate Absalom (KA), and Bassey Ebenso (EB). EOA, MJA, KA, and BE made substantial contributions to the conception of this work. EOA and MJA were involved in the data searching, data extraction and quality assessment. The final version of the manuscript was approved by all authors.

### ACKNOWLEDGEMENTS

The authors would like to thank Judy Wright for her input and advice during the development of the search strategy. Eme O. Asuquo was supported by a Tertiary Education Trust Fund (TETFund) Scholarship. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

### CONFLICT OF INTEREST STATEMENT

The authors have no conflict of interest to declare.

### DATA AVAILABILITY STATEMENT

The data that supports the findings of this study are available in the Supplementary Material of this article.

### ORCID

Eme O. Asuquo  <https://orcid.org/0000-0002-2321-2730>

Kate Absalom  <https://orcid.org/0000-0002-5477-6643>

### REFERENCES

- World Health Organization. Global Cancer Observatory: Africa; 2024. <https://gco.iarc.who.int/media/globocan/factsheets/populations/903-africa-fact-sheet.pdf>
- Heer E, Harper A, Escandor N, Sung H, McCormack V, Fidler-Benaoudia MM. Global burden and trends in premenopausal and postmenopausal breast cancer: a population-based study. *Lancet Glob Health*. 2020;8(8):e1027-e1037. [https://doi.org/10.1016/s2214-109x\(20\)30215-1](https://doi.org/10.1016/s2214-109x(20)30215-1)
- Sung H, Ferlay J, Siegel RL, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA A Cancer J Clin*. 2021;71(3):209-249. <https://doi.org/10.3322/caac.21660>
- Arnold M, Morgan E, Rungay H, et al. Current and future burden of breast cancer: global statistics for 2020 and 2040. *Breast*. 2022;66:15-23. <https://doi.org/10.1016/j.breast.2022.08.010>
- Joko-Fru WY, Jedy-Agba E, Korir A, et al. The evolving epidemic of breast cancer in sub-Saharan Africa: results from the African Cancer Registry Network. *Int J Cancer*. 2020;147(8):2131-2141. <https://doi.org/10.1002/ijc.33014>
- Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2018;68(6):394-424. <https://doi.org/10.3322/caac.21492>
- Abbad AB, Baba H, Dehbi H, et al. Genetics of breast cancer in African populations: a literature review. *Global Health Epidemiol Genom*. 2018;3:e8. <https://doi.org/10.1017/ghg.2018.8>
- Zouré AA, Bambara HA, Sawadogo A, Bakri Y, Simpore J. BRCA1 and BRCA2 gene mutations in breast cancer among west African women. *Afr J Biomed Res*. 2018;21:7-10.
- Shah SC, Kayamba V, Peek RM, Jr., Heimburger D. Cancer control in low- and middle-income countries: is it time to consider screening? *J Glob Oncol*. 2019;5:1-8. <https://doi.org/10.1200/jgo.18.00200>
- Sanuade OA, Ayettey H, Hewlett S, et al. Understanding the causes of breast cancer treatment delays at a teaching hospital in Ghana. *J Health Psychol*. 2021;26(3):357-366. <https://doi.org/10.1177/1359105318814152>
- Oguntola AS, Adeoti ML, Akanbi O. Non-Adherence to the Use of Tamoxifen in the First Year by the Breast Cancer Patients in an African Population. *East Cent Afr J Surg*. 2011;16(1):eISSN: 2073-9990.
- Frie KG, Samoura H, Diop S, et al. Why do women with breast cancer get diagnosed and treated late in sub-Saharan Africa? Perspectives from women and patients in Bamako, Mali. *Breast Care*. 2018;13(1):39-43. <https://doi.org/10.1159/000481087>
- Salisu WJ, Varaei S, Seylani K, Mirlashari J. Limited access to care for persons with breast cancer in Africa: a systematic review. *Eur J Oncol Nurs*. 2021;50:101867. <https://doi.org/10.1016/j.ejon.2020.101867>
- Sullivan R, Alatisse OI, Anderson BO, et al. Global cancer surgery: delivering safe, affordable, and timely cancer surgery. *Lancet Oncol*. 2015;16(11):1193-1224. [https://doi.org/10.1016/s1470-2045\(15\)00223-5](https://doi.org/10.1016/s1470-2045(15)00223-5)
- Justin I, Chiamaka I, Chidinma I, Ijeoma M, Obiagele M. Factors influencing non-adherence to chemotherapy: perspective of Nigerian breast cancer survivors. *Nurs Pract Today*. 2019;6(1):41-48. <https://doi.org/10.18502/npt.v6i1.392>
- Pace LE, Shulman LN. Breast cancer in sub-Saharan Africa: challenges and opportunities to reduce mortality. *Oncol*. 2016;21(6):739-744. <https://doi.org/10.1634/theoncologist.2015-0429>
- Smit A, Coetzee BJ, Roomaney R, Bradshaw M, Swartz L. Women's stories of living with breast cancer: a systematic review and meta-synthesis of qualitative evidence. *Soc Sci Med*. 2019;222:231-245. <https://doi.org/10.1016/j.socscimed.2019.01.020>
- Jones CE, Maben J, Lucas G, Davies EA, Jack RH, Ream E. Barriers to early diagnosis of symptomatic breast cancer: a qualitative study of Black African, Black Caribbean and White British women living in the UK. *BMJ Open*. 2015;5(3):e006944. <https://doi.org/10.1136/bmjopen-2014-006944>
- Maria Hewitt SG, Stovall E, eds. *Institute of Medicine and National Research Council. From Cancer Patient to Cancer Survivor: Lost in*



- Transition. The National Academies Press. 2006. <https://doi.org/10.17226/11468>
20. Le Boutillier C, Archer S, Barry C, King A, Mansfield L, Urch C. Conceptual framework for living with and beyond cancer: a systematic review and narrative synthesis. *Psycho Oncol*. 2019;28(5):948-959. <https://doi.org/10.1002/pon.5046>
  21. Wilfred N, Addai BW, Adewole I, et al. Cancer in sub-Saharan Africa: a Lancet oncology Commission. *Lancet Oncol*. 2022;23(6):e251-e312. [https://doi.org/10.1016/s1470-2045\(21\)00720-8](https://doi.org/10.1016/s1470-2045(21)00720-8)
  22. Ganz PA, Yip CH, Gralow JR, et al. Supportive care after curative treatment for breast cancer (survivorship care): resource allocations in low- and middle-income countries. A Breast Health Global Initiative 2013 consensus statement. *Breast*. 2013;22(5):606-615. <https://doi.org/10.1016/j.breast.2013.07.049>
  23. Mutebi M, Edge J. Stigma, survivorship and solutions: addressing the challenges of living with breast cancer in low-resource areas. *S Afr Med J*. 2014;104(5):383-385. <https://doi.org/10.7196/samj.8253>
  24. Johnson SE, Bauer F, Idris LA. Cancer in sub-Saharan Africa: key research and action gaps. *Lancet Oncol*. 2022;23(6):703-705. [https://doi.org/10.1016/s1470-2045\(22\)00185-1](https://doi.org/10.1016/s1470-2045(22)00185-1)
  25. Hong QN, Gonzalez-Reyes A, Pluye P. Improving the usefulness of a tool for appraising the quality of qualitative, quantitative and mixed methods studies, the Mixed Methods Appraisal Tool (MMAT). *J Eval Clin Pract*. 2018;24(3):459-467. <https://doi.org/10.1111/jep.12884>
  26. Popay J, Roberts H, Sowden A, et al. Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A Product from the ESRC Methods Programme; 2006:1-92.
  27. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *PLoS Med*. 2021;18(3):e1003583. <https://doi.org/10.1371/journal.pmed.1003583>
  28. Price AJ, Ndom P, Atenguena E, Mambou Nouemssi JP, Ryder RW. Cancer care challenges in developing countries. *Cancer*. 2012;118(14):3627-3635. <https://doi.org/10.1002/ncr.26681>
  29. Frie KG, Wienke A, Kamate B, et al. Factors associated with time to first healthcare visit, diagnosis and treatment, and their impact on survival among breast cancer patients in Mali. *PLoS One*. 2018;13(11):e0207928. <https://doi.org/10.1371/journal.pone.0207928>
  30. Teshome B, Trabitzsch J, Afework T, et al. Perceived barriers to timely treatment initiation and social support status among women with breast cancer in Ethiopia. *PLoS One*. 2021;16(9):e0257163. <https://doi.org/10.1371/journal.pone.0257163>
  31. Clegg-Lampsey JNA, Dakubo JCB, Attobra YN. Psychosocial aspects of breast cancer treatment in Accra, Ghana. *East Afr Med J*. 2009;86(7):348-353. <https://doi.org/10.4314/eamj.v86i7.54152>
  32. Boatema Benson R, Cobbold B, Opoku Boamah E, Akuoko CP, Boateng D. Challenges, coping strategies, and social support among breast cancer patients in Ghana. *Adv Public Health*. 2020;2020(4817932):1-11. <https://doi.org/10.1155/2020/4817932>
  33. Ohaeri JU, Campbell OB, Ilesanmi AO, Ohaeri BM. Psychosocial concerns of Nigerian women with breast and cervical cancer. *Psycho Oncol*. 1998;7(6):494-501. [https://doi.org/10.1002/\(sici\)1099-1611\(199811/12\)7:6<494::aid-pon331>3.3.co;2-n](https://doi.org/10.1002/(sici)1099-1611(199811/12)7:6<494::aid-pon331>3.3.co;2-n)
  34. Rayne S, Wright K, Kruger D, Benn C-A, Schnippel K, Firnhaber C. Fear of treatments surpasses demographic and socioeconomic factors in affecting patients with breast cancer in Urban South Africa. *J Glob Oncol*. 2017;3(2):125-134. <https://doi.org/10.1200/jgo.2015.002691>
  35. Fatiregun O, Sowunmi AC, Habeebu M, et al. Prevalence and correlates of unmet supportive needs of Nigerian patients with cancer. *J Glob Oncol*. 2019;5:1-9. <https://doi.org/10.1200/jgo.19.00043>
  36. Anim-Sampong AM, Vanderpuye V, Botwe BO, Anim-Sampong S. Psychosocial impact of mastectomy on female breast cancer patients presenting at an academic radiotherapy oncology centre in Ghana. *J Radiother Pract*. 2021;20(3):306-315. <https://doi.org/10.1017/s146039692000045x>
  37. Hassen AM, Hussien FM, Taye G, Gizaw M. Quality of life and associated factors among patients with breast cancer under chemotherapy at Tikur Anbessa specialized hospital, Addis Ababa, Ethiopia. *PLoS One*. 2019;14(9):e0222629. <https://doi.org/10.1371/journal.pone.0222629>
  38. Aldaak M, Suliman HM, Abd-Elgadir EE, Abdoon IH. Impact of anticancer therapy on the quality of life of Sudanese patients with breast cancer at Khartoum oncology hospital. *BMC Wom Health*. 2022;22(1):448. <https://doi.org/10.1186/s12905-022-02041-0>
  39. Akuoko CP, Chambers S, Yates P. Supportive care needs of women with advanced breast cancer in Ghana. *Eur J Oncol Nurs*. 2022;58:102142. <https://doi.org/10.1016/j.ejon.2022.102142>
  40. Getu MA, Chen C, Wang P, Kantelhardt EJ, Addissie A. Quality of life and its influencing factors among breast cancer patients at Tikur Anbessa specialised hospital, Addis Ababa, Ethiopia. *BMC Cancer*. 2022;22(1):897. <https://doi.org/10.1186/s12885-022-09921-6>
  41. Okoli C, Anyanwu SNC, Ochomma AO, et al. Assessing the quality of life of patients with breast cancer treated in a tertiary hospital in a resource-poor country. *World J Surg*. 2019;43(1):44-51. <https://doi.org/10.1007/s00268-018-4772-x>
  42. Wondimagegnehu A, Abebe W, Abraha A, Teferra S. Depression and social support among breast cancer patients in Addis Ababa, Ethiopia. *BMC Cancer*. 2019;19(1):836. <https://doi.org/10.1186/s12885-019-6007-4>
  43. Traore BM, El Fakir S, Charaka H, et al. Evolution of quality of life in patients with breast cancer during the first year of follow-up in Morocco. *BMC Cancer*. 2018;18(1):109. <https://doi.org/10.1186/s12885-018-4008-3>
  44. Gadisa DA, Wang S-H, Yimer G. The impact of AC and AC-T chemotherapy's toxicities on quality of life among women with breast cancer in Ethiopia: a prospective patient-reported outcomes study. *Breast Cancer*. 2021;13:107-132. <https://doi.org/10.2147/bctt.s289014>
  45. Awadalla AW, Ohaeri JU, Gholoum A, Jacob A, Khalid AOA, Hamad HMA. Factors associated with quality of life of outpatients with breast cancer and gynecologic cancers and their family caregivers: a controlled study. *BMC Cancer*. 2007;7(1):102. <https://doi.org/10.1186/1471-2407-7-102>
  46. Kelkil BA, Atnafu NT, Dinegde NG, Wassie M. Coping strategies of stress and its associated factors among breast cancer patients in Tikur Anbessa specialized hospital, Ethiopia: institution-based cross-sectional study. *BMC Wom Health*. 2022;22(1):252. <https://doi.org/10.1186/s12905-022-01792-0>
  47. Legese B, Addissie A, Gizaw M, Tigneh W, Yilma T. Information needs of breast cancer patients attending care at Tikur Anbessa specialized hospital: a descriptive study. *Cancer Manag Res*. 2021;13:277-286. <https://doi.org/10.2147/cmar.s264526>
  48. Boadi B, Banji GT, Adzobu P, Okyere S. Information needs of breast cancer patients and how educational status influence their information needs in Ghana. *J Librarian Inf Sci*. 2020;53(4):686-698. <https://doi.org/10.1177/0961000620981611>
  49. Shaikh AJ, Dhillion N, Shah J, et al. Supporting Kenyan women with advanced breast cancer through a network and assessing their needs and quality of life. *Support Care Cancer*. 2022;30(2):1557-1567. <https://doi.org/10.1007/s00520-021-06539-5>
  50. Elumelu TN, Asuzu CC, Akin-Odanye EO. Impact of active coping, religion and acceptance on quality of life of patients with breast cancer in the department of radiotherapy, UCH, Ibadan. *BMJ Support Palliat Care*. 2015;5(2):175-180. <https://doi.org/10.1136/bmjspcare-2012-000409>
  51. Kugbey N, Asante KO, Meyer-Weitz A. Doctor-patient relationship mediates the effects of shared decision making on health-related quality of life among women living with breast cancer. *S Afr J Psychol*. 2019;49(3):364-375. <https://doi.org/10.1177/0081246318801159>
  52. Maree JE, Mulonda J. "My experience has been a terrible one, something I could not run away from": Zambian women's experiences of

- advanced breast cancer. *Int J Afr Nurs Sci.* 2015;3:24-30. <https://doi.org/10.1016/j.ijans.2015.07.001>
53. Adejoh SO, Olorunlana A. Managing breast cancer: echoes from patients in Lagos, Nigeria. *J Cancer Educ.* 2017;32(4):892-900. <https://doi.org/10.1007/s13187-016-1058-6>
  54. Amoo EO, Samuel GW, Olawole-Isaac A, Ajayi MP, Allo T, Adekeye O. Spousal desertion and coping strategies among ever-married women with breast cancer in Kwara and Ogun States Nigeria. *Open Access Macedonian J Med Sci.* 2020;8(E):271-279. <https://doi.org/10.3889/oamjms.2020.3538>
  55. Anarado AN, Nwaneri AC, Ezeome ER, Ofi OB, Ogbolu Y. Experiences and desired nursing assistance of women on out-patient breast cancer chemotherapy in Southeastern Nigeria. *Psycho Oncol.* 2017;26(3):385-391. <https://doi.org/10.1002/pon.4034>
  56. Agatha Ogunkorode R, Holtslander L, Ferguson L, Maree JE, Anonson J, Ramsden VR. Factors influencing the health-seeking behaviors of women with advanced stages of breast cancer in Southwestern Nigeria: an interpretive description study. *Int J Afr Nurs Sci.* 2021;14:100273. <https://doi.org/10.1016/j.ijans.2020.100273>
  57. Kugbey N, Meyer-Weitz A, Asante KO, Yarney J, Vanderpuye V. Lived experiences of women receiving medical treatments for breast cancer in Ghana: a qualitative study. *Sage Open.* 2021;11(3):9.
  58. Ogunkorode A, Holtslander L, Ferguson L, Maree JE, Anonson J, Ramsden VR. Seeking divine intervention to manage the advanced stages of breast cancer in Southwestern Nigeria. *Cancer Nurs.* 2020;44(3):E163-E169. <https://doi.org/10.1097/ncc.00000000000000789>
  59. Zwane D. Are their voices being heard? An exploration of female breast cancer communication in Kwa Zulu Natal, South Africa. *Health Care Women Int.* 2020;42(7-9):1-20. <https://doi.org/10.1080/07399332.2020.1802726>
  60. Nwakasi C, Esiaka D, Pawlowicz A, Chidebe RCW, Oyinlola O, Mahmoud K. "He [the doctor] said I should go and wait for my death:" Dualities in care and support access among female cancer survivors. *J Cancer Pol.* 2022;35:100374. <https://doi.org/10.1016/j.jcpo.2022.100374>
  61. Iddrisu M, Aziato L, Ohene LA. Socioeconomic impact of breast cancer on young women in Ghana: a qualitative study. *Nurs Open.* 2021;8(1):29-38. <https://doi.org/10.1002/nop2.590>
  62. Stecher NE, Cohen MA, Myburgh EJ. Experiences of women in survivorship following mastectomy in the Cape Metropole. *S Afr J Surg.* 2019;57(1):19-23. <https://doi.org/10.17159/2078-5151/2019/v57n1a2746>
  63. Iddrisu M, Aziato L, Dedey F. Psychological and physical effects of breast cancer diagnosis and treatment on young Ghanaian women: a qualitative study. *BMC Psychiatr.* 2020;20(1):353. <https://doi.org/10.1186/s12888-020-02760-4>
  64. Zwane D. "Our beauty is in our breasts": a culture-centered approach to understanding cancer perceptions in Kwa Zulu Natal, South Africa. *Qual Health Res.* 2021;31(1):148-159. <https://doi.org/10.1177/1049732320960417>
  65. Gorven A, du Plessis L. Corporeal posttraumatic growth as a result of breast cancer: an interpretative phenomenological analysis. *J Humanist Psychol.* 2021;61(4):561-590. <https://doi.org/10.1177/0022167818761997>
  66. Akingbade O, Adediran V, Somoye IE, Alade AS, Chow KM. Perceived feasibility and usefulness of mHealth interventions for psychoeducational support among Nigerian women receiving chemotherapy for breast cancer: a focus group study. *Support Care Cancer.* 2022;30(12):9723-9734. <https://doi.org/10.1007/s00520-022-07403-w>
  67. Van Wyk J, Carbonatto C. The social functioning of women with breast cancer in the context of the life world: a social work perspective. *Soc Work.* 2016;52(3):439-458. <https://doi.org/10.15270/52-3-518>
  68. Gallagher-Squires C, Roomaney R, Kagee A. Cognitive coping strategies of South African women in breast cancer care. *S Afr J Psychol.* 2020;51(4):485-495. <https://doi.org/10.1177/0081246320961761>
  69. Iddrisu M, Aziato L, Dedey F. A qualitative study on coping strategies of young women living with breast cancer in Ghana. *Int J Afr Nurs Sci.* 2019;11:100173. <https://doi.org/10.1016/j.ijans.2019.100173>
  70. Smit A, Coetzee B, Roomaney R, Swartz L. Understanding the subjective experiences of south African women with recurrent breast cancer: a qualitative study. *J Health Psychol.* 2021;13591053211002236.
  71. Adejoh SO, Adejayan A, Olorunlana A. Patients' experiences of family members' reactions to diagnosis of breast cancer and support in the management of breast cancer in Lagos, Nigeria. *Palliat Support Care.* 2020;19(5):1-6. <https://doi.org/10.1017/s147895152000070x>
  72. Kudjawa S, Agyeman-Yeboah J. Experiences of women with breast cancer undergoing chemotherapy: a study at Ho Teaching Hospital, Ghana. *Nurs Open.* 2021;8(6):3161-3169. <https://doi.org/10.1002/nop2.1029>
  73. Githaiga JN, Swartz L. Therapeutic pluralism and the politics of disclosure: breast cancer patients' experiences in public healthcare. *Afr Health Sci.* 2022;22(4):77-86. <https://doi.org/10.4314/ahs.v22i4.11>
  74. Mekonnen AG, Gebeyehu BT, Woldearegay M. Experience of patients with breast cancer with traditional treatment and healers' understanding of causes and manifestations of breast cancer in North Shewa zone, Ethiopia: a phenomenological study. *BMJ Open.* 2022;12(12):e063726. <https://doi.org/10.1136/bmjopen-2022-063726>
  75. De Ver Dye T, Bogale S, Hobden C, et al. A mixed-method assessment of beliefs and practice around breast cancer in Ethiopia: implications for public health programming and cancer control. *Glob Public Health.* 2011;6(7):719-731. <https://doi.org/10.1080/17441692.2010.510479>
  76. Smit A, Coetzee B, Roomaney R, Swartz L. Understanding the subjective experiences of South African women with recurrent breast cancer: a qualitative study. *J Health Psychol.* 2022;27(8):1959-1970. <https://doi.org/10.1177/13591053211002236>
  77. Wooyoung Kim A, Kaiser B, Bosire E, Shahbazian K, Mendenhall E. Idioms of resilience among cancer patients in urban South Africa: an anthropological heuristic for the study of culture and resilience. *Transcult Psychiatr.* 2019;56(4):720-747. <https://doi.org/10.1177/1363461519858798>
  78. Rivera-Franco MM, Leon-Rodríguez E. Delays in breast cancer detection and treatment in developing countries. *Breast Cancer Basic Clin Res.* 2018;12:117822341775267. <https://doi.org/10.1177/1178223417752677>
  79. Institute of Medicine National Cancer Policy Forum Workshop. Survivorship care planning: implementing the survivorship care plan. In: Hewitt M, Ganz PA, eds. *Implementing Cancer Survivorship Care Planning: Workshop Summary.* The National Academies Press; 2007:5-30.
  80. Lewis-Thames MW, Strayhorn SM, Molina Y, Nolan TS. The use of survivorship care plans by female racial and ethnic minority breast cancer survivors: a systematic review. *J Cancer Surviv.* 2020;14(6):806-825. <https://doi.org/10.1007/s11764-020-00894-8>
  81. Joshi A, Larkins S, Evans R, Moodley N, Brown A, Sabesan S. Use and impact of breast cancer survivorship care plans: a systematic review. *Breast Cancer.* 2021;28(6):1292-1317. <https://doi.org/10.1007/s12282-021-01267-4>
  82. Garton EM, Ali Z, Cira MK, et al. An analysis of survivorship care strategies in national cancer control plans in Africa. *J Cancer Surviv.* 2023;17(3):634-645. <https://doi.org/10.1007/s11764-022-01320-x>

83. Romero Y, Trapani D, Johnson S, et al. National cancer control plans: a global analysis. *Lancet Oncol*. 2018;19(10):e546-e555. [https://doi.org/10.1016/s1470-2045\(18\)30681-8](https://doi.org/10.1016/s1470-2045(18)30681-8)
84. Altre R, Chou F-Y. Nursing students' knowledge and attitude toward cancer survivorship. *J Cancer Educ*. 2022;37(5):1312-1321. <https://doi.org/10.1007/s13187-020-01953-5>
85. Institute of Medicine National Cancer Policy Forum. Solutions to the oncology workforce shortage. In: *Ensuring Quality Cancer Care through the Oncology Workforce: Sustaining Care in the 21st Century: Workshop Summary*. National Academies Press; 2009.
86. Grant M, Economou D, Ferrell B, Uman G. Educating health care professionals to provide institutional changes in cancer survivorship care. *J Cancer Educ*. 2012;27(2):226-232. <https://doi.org/10.1007/s13187-012-0314-7>
87. Iyer R, Ring A. Breast cancer survivorship: key issues and priorities of care. *Br J Gen Pract*. 2017;67(656):140-141. <https://doi.org/10.3399/bjgp17x689845>
88. Mead KH, Raskin S, Willis A, et al. Identifying patients' priorities for quality survivorship: conceptualizing a patient-centered approach to survivorship care. *J Cancer Surviv*. 2020;14(6):939-958. <https://doi.org/10.1007/s11764-020-00905-8>
89. Cain JM, Denny L. Palliative care in women's cancer care: global challenges and advances. *Int J Gynecol Obstet*. 2018;143(S2):153-158. <https://doi.org/10.1002/ijgo.12624>
90. Bahnassy AA, Abdellateif MS, Zekri A-RN. Cancer in Africa: is it a genetic or environmental health problem? *Front Oncol*. 2020;10(2508). <https://doi.org/10.3389/fonc.2020.604214>
91. Asuquo E, Salako O, Mbangsi T, et al. *Breast Cancer Survivorship in Nigeria: The Experience of Survivors and Need for Development of Supportive Care*. Oxford University Press; 2022.

## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Asuquo EO, Absolom K, Ebenso B, Allsop MJ. Symptoms, concerns, and experiences of women living with and beyond breast cancer in Africa: a mixed-methods systematic review. *Psychooncology*. 2024;e6342. <https://doi.org/10.1002/pon.6342>