ONCOLOGY

Management of Psychosocial and Sexual Complains Among Cancer Patients in the African Context: A scoping review

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ABSTRACT

Background: There is a lack of specialised psychosocial and sexual therapies for cancer patients in the African context.

Aim: This paper aims to highlight gaps in capacities of health care providers to address psychosocial and sexual needs of patients suffering from cancer disease, develop and share the proposed algorithm of psychosocial and sexual care management in the African context.

Methods: We conducted a scoping review of literature that highlights the psychosocial and sexual complications associated with cancer disease and its management, especially in the African context. A systematic search of bibliographic databases and websites including BioMed Central, PubMed Central, Taylor and Francis Online, Wiley online Library, EBSCOHOST databases using appropriate keywords on management of cancer in Africa was conducted between January 1, 2000 to March 31, 2021, using search words: 'cancer; cancer treatment; 'cancer management'; 'cancer complications'; 'psychosocial and sexual complications of cancer'. Identified publications were screened against selection criteria following the PRISMA guidelines.

Outcomes: Characteristics or psycho-social and sexual outcomes of cancer were examined and associated management charted in an excel framework with the 6 studies that met the eligibility criteria.

Results: A total of 6 studies were retrieved that met the eligibility criteria.

Clinical Translation: There is need to strengthen capacities of health care providers in the African health care system regarding the management of psychosocial and sexual complications associated with cancer disease.

Strengths and limitations: The study's utilised a rapid scoping review approach that aimed to shed some light regarding the gaps in cancer management, while also providing a much-needed solution to care for cancer survivors in the African context.

Conclusions: The study proposes a psychosocial and sexual algorithm of care to be utilised by health care providers for the management of psychosexual complications associated with cancer disease. The algorithm can assist and facilitate the integration of psychosocial and sexual cancer programs into existing health care services in primary health care facilities making it accessible to most patients. **Ramlachan P, Tammary E, Joachim O, et al. Management of Psychosocial and Sexual Complains Among Cancer Patients in the African Context: A scoping review. Sex Med 2021;XX:XXXXXX.**

Key Words: Cancer; Cancer in Africa; Sexual complications; Psychosocial and sexual management for cancer patients

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INTRODUCTION

Cancer is one of the leading chronic conditions that has drawn significant attention from the WHO at the global scale, focusing on low and middle-income countries where the burden of lifestyle and infectious diseases is high and remains the top cause of morbidity and mortality rates.[1] Based on the same report by WHO, projections indicate that the rate of new cases is set to spike by approximately 70% within the next 20 years. The WHO further reports that cancer complications were linked to 1 out of every 6 deaths in 2015, recording 8.8 million deaths. One of the worrying aspects is that about 70% of its mortality rates arise within the countries classified as low-income or middle income. Most of the African nations fall under this category, which makes cancer a significant issue of concern in the region.

Dent et al.[2] reveal that cancer and its associated complications such as psychosocial and sexual problems have increased pressure on the health care systems in African nations within the last 10 years. The authors highlight that this disease has surpassed the threats posed by other cyclic conditions in the continent, making it the present public health issue of concern. For instance, they indicate that over 60% of the Africans succumb to cancer compared to malaria, which was previously associated with high mortality in the region. Statistics also demonstrate that by the year 2030, the mortality rate will be at 70%, as revealed by age as a demographic factor alone. Jemal et al.[3] describe cancer in the African context as a concealed pandemic that is sadly worse than other globally recognised ones due to how it manifests and the complexity of its consequences. In this regard, more than 20% of the nations in Africa are staring at a uphill task of implementing interventions and programmes to combat the disease due to the complete absence of treatments and health infrastructure.[2] In fact, in other countries, the available care is either insufficient, sporadic, or limited. Such aspects depict the seriousness of cancer within this region.

A study by Gakunga, Parkin, and African Cancer Registry Network[4] revealed that cancer cases have been on the rise in Africa because of a gradually ageing population and rapid population growth. Similar findings were reported by Jemal et al.[3] in their research about the burden of cancer cases on the continent. They added that the population of Africa is projected to increase by over 50% between the years 2010 and 2030, raising the numbers from around 1.03 billion people to over 1.52 billion. Vanderpuye et al.[5] also add that about 1.06 new cases are reported annually. The figure is expected to rise by nearly 102%, giving an estimated 2.12 million cases by 2040. During the same period, the population of the elderly over 60 years will also record a 90% increase rate to approximately 105 from 55 million. Based on reviews by the 2 studies, this advanced age is a significant risk factor for the emergence of cancer cases across the globe. These projections face additional complications from the rapid behavioral changes related to economic transitions. For instance, the region is at a higher risk for increased rates of smoking. According to WHO,[1] tobacco smoking is ranked atop all other risk factors for the disease, with estimates depicting that it causes over 22% of the mortality rates. In this regard, the increasing shift in practices through the adoption of risky lifestyle behaviours such as smoking increases the vulnerability of Africans to Cancer. Other risk factors of concern within the African context comprise alcohol consumption, diminished physical activities, obesity, and HIV/AIDs pandemic in Sub-Saharan Africa[6] Blackadar[7] supports this observation by expounding on the causes of cancers and clarifying that their impacts are universal unless respective governments minimise them through appropriate regulations. His exploration of the history of causes of cancer is consistent with Adebamowo and Akarolo-Anthony's[6] findings that 30%-40% of cancer cases are attributable to dietary factors and related elements such as sedentary lifestyle and increased body weight. Due to the increased burden of cancer diseases, there are complications on how the disease affects other aspects of life, including mental, social, and sexual, which may also need to be addressed.

Barbera et al.[8] report that cancer and its treatment procedures trigger different forms of sexual complications among both men and women. The author indicates that while some pharmacological treatments and surgeries can have little to no effect on sexuality, others leave life-long side effects. Based on Carter et al.,[9] some of the prevalent cancer-related sexual challenges comprise erectile dysfunction in men. At the same time, in women, the common ones include arousal disorders, diminished desire, and pain. Other common issues to both genders include reduced response, body image, intimacy and relationship problems, reduced overall satisfaction and functioning, genital atrophy, and vasomotor issues.[8] The severity of complications varies depending on the individual and sometimes gender.

This study aims to highlight gaps in capacities of health care providers to address psychosocial and sexual needs of patients suffering from cancer disease, develop and share the proposed algorithm of psychosocial and sexual care management in the African context.. Psychosocial and sexual problems in cancer patients are a significant concern that healthcare providers may not be able to address due to the absence of psychosocial and sexual counselling training. According to Stefan,[10] additional barriers for health care providers to offer psychosocial and sexual counselling include a lack of competence and training on this, low ratio of care provider to the number of patients, and a lack of infrastructure. For instance, a study evaluating the adequacy of oncologists in Africa revealed limited data around this capacity of health care services because the oncologists are few. However, literature within sub-Saharan Africa non-inclusive of South Africa indicates that 2 or fewer oncologists serve approximately 100,000 patients indicating the absence of appropriate personnel. Thus, this situation demonstrates that for sexual complications, which require specific psychosocial and sexual therapy is rarely offered due to low capacity. Such services are offered mainly by non-clinicians with little training in this area. Maree and Fitch[11] support this observation by adding that in a study

investigating the care of sexual problems among cancer patients in African and Canadian contexts, experts in the former reported minimal formal education in the management of sexuality within the cancer context. Moreover, professionals did not express awareness or existence of specific policies or therapeutic frameworks on managing psychosocial and sexual complications among cancer patients, hence it remains a critical challenge. There is, therefore, a need to address the gaps in capacities of health care professionals in the provision of psychosocial and sexual therapy for cancer patients in Africa.

MATERIALS AND METHODS

This research employed a rapid scoping review methodology, an appropriate method to provide a rapid review of evidence about the need to highlight psychosocial and sexual management for African cancer patients. A systematic search of bibliographic databases and websites including BioMed Central, PubMed Central, Taylor and Francis Online, Wiley online Library, EBSCOHOST databases using appropriate keywords on the management of cancer in Africa was conducted between January 1, 2000 to December 31, 2020, using search words: 'cancer; cancer treatment;' 'cancer management;' 'cancer complications;' 'psychosocial and sexual complications of cancer.' Identified publications were screened against selection criteria following the PRISMA guidelines. Characteristics or psycho-social and sexual outcomes of cancer were examined, associated management identified using an excel data charting framework. The gaps identified from the scoping review necessitated developing an algorithm of psychosocial and sexual care. The search was also limited to sources available online Figure 1.

A literature search was conducted in different databases to increase relevant published papers focusing on cancer disease and its associated sexual complications in the African context. Some of the significant databases of focus comprised of PubMed, Science Direct and Biomed databases. The researcher used specific search phrases such as 'cancer and sexuality,' 'Sexual dysfunctions or disorder in cancer,' 'cancer treatment and management in Africa,' 'and cancer psychosocial and sexual care in Africa.' Figure 2

RESULTS

Data were extracted from studies regarding author, year of study, title, geographical location, study type, study design, study method, sample, settings, purpose design findings and study reference. These were studies that were completed between the year 2000 to December 31, 2020.

Their full texts were available online and in English. The settings of the studies varied, with some being in communities, health facilities, households, among others. A total of 6 studies were retrieved that were conducted in the Africa region Table 1. Majority of the studies (n = 4) were conducted in South Africa, followed by Tunisia (n = 1) and 1 in Nigeria (Figure 2). All studies were primary studies that utilized quantitative (n = 1), qualitative (n = 3) and prospective observational methodologies (n = 1).

Our study found out that there is need to provide the psychosocial and sexual impacts on cancer survivors in Africa with a very limited number of studies investigating the psychosocial and sexual complications among cancer patients and those in remission. Only 1 study in South Africa conducted the study among community populations living in the rural areas, while the rest of the studies used patients recruited from health facilities who were undergoing treatment or had completed treatment for various forms of cancer.

Two studies were on patients' with breast cancer, 1 study on cervical cancer, 1 study on prostate cancer and the other did not specify the type of cancer but looked at the general relationship aspects and sexuality post cancer treatment. The patients had been treated with surgery, radiotherapy, chemotherapy alone or in combination.

The study in Nigeria, revealed that 6 months after surgery, the survey responses revealed that 67.9% of women felt inadequate as women because of the mastectomy that they had

Item	Inclusion Criteria	Exclusion Criteria
Geographical Location	African study	Any other studies with populations and geographically outside Africa
Language	English	Non-English literature
Publication date	1st January 2000 – 31st December 2020	Pre 2000 literature
Publication Format	Research studies and student thesis	Theoretical notes
Aim of Study	The studies investigating cancer disease and associated sexual problems	Studies that did not specifically investigate sexual health outcomes of Cancer
Study Design	All study types, designs and methodologies including primary and secondary studies with clear methodologies	N/A

Figure 1. The inclusion and exclusion criteria used in the scoping review method.

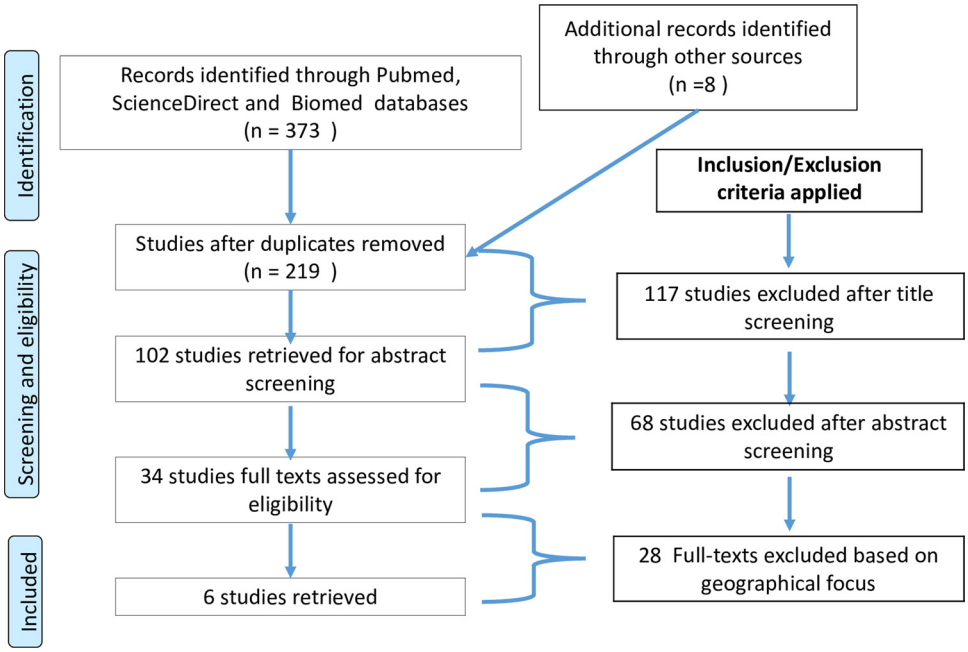

Figure 2. Preferred reporting items for systematic reviews and meta-analyses (PRISMA) flow diagram of retrieved studies.

undergone and that 79.0% experienced a decrease in the frequency of conjugal relations.[12] The same study revealed that 38.3% of participants reported being divorced and/or separated from their husbands 3 years after primary breast cancer treatment.

The study from South Africa revealed that participants reported erectile dysfunction as the most common sexual dysfunction experienced, feelings of sexual and emotional detachment from their spouses and they feel guilty when they were unable to achieve intimacy with their partners that sometimes manifested in feelings of inadequacy and frustration.[13]

Another study indicates that the majority of the women (94.6%; n = 139) experienced sexual dysfunction, which persisted over time. The most affected domains in sexual function were arousal and desire, while satisfaction was the least affected

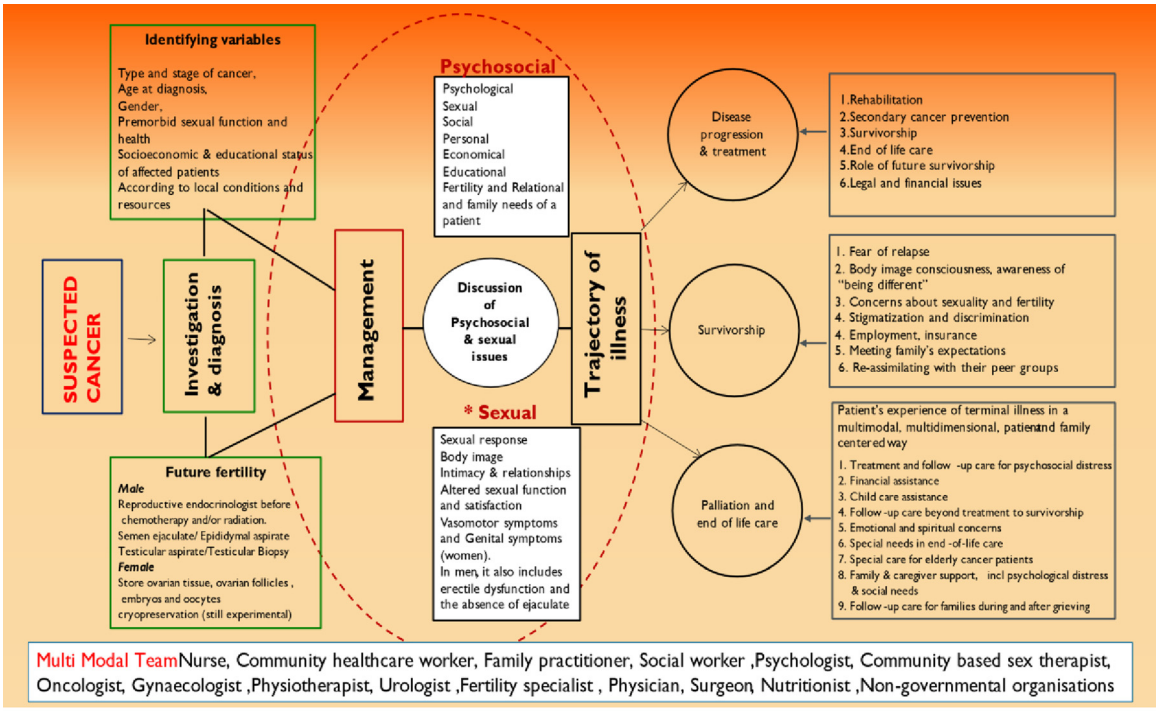

Figure 3. Algorithm of psychosocial and sexual care for cancer survivors.

Table 1. Synthesis of the psychosocial and sexual complications associated with cancer in Africa

	Journal and source	Authors	Title	County/Region	Target group	Source of data	Type of study
1	Psycho-Oncology 19: 893–897 (2010). DOI: 10.1002/ pon.1675	Odigie, V.I, Rika Tanak, Yusufu L.M.,, Dawotola D. A., and Marko Margariton	Psychosocial effects of mastectomy on married African women	North-western Nigeria	81 consenting married African women treated with unilateral total mastectomy secondary to operable breast cancer	Primary	Prospective Observational Study
2	Health SA Gesondheid ISSN: (Online) 2071-9736, (Print) 1025-9848 2018	Matheko N. Phahlamohlaka, Sibusiso Mdletshe, and Heather Lawrence	Psychosexual experiences of men following radiotherapy for prostate cancer	Johannesburg, South Africa	Walking patients who completed radical pelvic radiation within the past 6 to 18 months and who underwent a radical EBRT 3 dimensional (3D) treatment plan and willing to share their sexual experiences with the researcher.	Primary	Case Study
3	Asian Pac J Cancer Prev, 21 (2), 349-354. 2019	Abhishek Shankar, Jaineet Patil, Anil Luther, Kavita Mandrelle, Abhijit Chakraborty, Anusha Dubey, Deepak Saini, Ram Pukar Bharat, Deepak Abrol, Sachidanand Jee Bharati, Veronika Bentard	Sexual Dysfunction in Carcinoma Cervix: Assessment in Post Treated Cases by LENTSOMA Scale	Johannesburg, South Africa	Women who were 18 years and older who had completed curative treatment for cervical cancer	Primary	Cross-Sectional Study
4	University of Witwatersrand, Jo'burg	Imoleayo Elizabeth Fakunle	Sexual function in women after cervical cancer treatment at an academic hospital in Johannesburg, SA	South Africa	147 women with carcinoma of the cervix	Primary	Cross-Sectional Study design
5	European Psychiatry, 26, 1550. 2016 doi:10.1016/s0924-9338(11)73254-0	Mnif L., Masmoudi J., CharfiN., Baati I., Guermazi M., and Jaoua A.	Impact of Breast Cancer on sexuality: What's about the Tunisian women?	Tunisia	50 patients who were in remission for at least 3 months after initial treatment of breast cancer, and 50 healthy women	Primary	Case-Control Study
6	European Journal of Cancer Care 22, 459–467. 2013	Maree J.E., MOSALO A., and Wright S.C.D	It depends on how the relationship was before you became ill': Black South African women's experiences of life partner support through the trajectory of cervical cancer	South Africa	Black women predominantly older than 40, married, functionally illiterate, and mostly living in rural areas with no more than 2 children	Primary	Case Study

domain. Pain experienced during sexual activity after treatment persisted as time progressed.[14]

Another study in South Africa revealed that patients had poor sexual functioning and sexual satisfaction and the mean scores of 45.3% and 43.9% respectively as revealed by the Female Sexual Functioning Index tools that assessed their sexual functions. Additionally, women with menopausal status and sexual difficulties associated with the partner were significantly related to poorer sexual satisfaction. The same study also revealed that some of the women experienced anxiety and depression and that sexual satisfaction was statistically associated with the presence of anxiety symptoms.[15]

The only study that investigated community-level cancer patients on remission revealed that they stopped having sex with their partners after beginning to experience cancer complications such as vaginal bleeding, which affected their sexual relationships Table 1.[16]

Discussion: The Adverse Effects of Cancer on Psychosocial and Sexual Lives of Patients

These findings reveal that there have been psychosocial and sexual complications associated with cancer and possibly its treatment among patients suffering from various types of cancers in Africa. These complications range from individual or personal self and body image aspects, anxiety, depression, and even interpersonal negative impacts, subsequently impacting their psychosocial and sexual health.

Of the various studies retrieved, it is clear that the impact of cancer on the short- and long-term consequences of the disease on sexual functioning is expected irrespective of gender. Carter et al.[9] reported that cancer significantly impacted the overall quality of life, sexuality, and reproduction by triggering problems such as infertility, sexual dysfunction, or even lymphedema. Similarly, Schover et al.[17] add that sexual dysfunction is common after treating pelvic malignancies among both genders. Both studies agree that the emergence of this problem is a consequence of damaged blood vessels, nerves, destabilisation of hormones that regulate sexual function. In the same context, gender-specific studies revealed that women's sexuality is significantly impacted after surgeries such as mastectomy because they impact their body image, a critical aesthetic factor.[18,19] Maguire[20] study, second this observation by underlining the sexual complications related to cervical cancer treatment and how critical psychosocial care is for the sexual recovery of the patients. The findings of his study concurs with that of a study focusing on the epidemiology of prostate cancer by Bashir[21] revealed that cancer's effects on sexuality impacts both men and women alike.

The Role of Healthcare Providers in Management of Psychosocial and Sexual Problems for Cancer Survivors

The study has highlighted the impact of cancer disease on patients' psychosocial and sexual lives, and hence it is imperative that health care providers are equipped to manage these impacts.

Some of the social impacts revealed throughout literature study include the social dimension of the disease. One study's results reveal that delayed or incomplete diagnosis is common in the African context compared to other developed regions of the world.[2] However, patients' health awareness and financial capability play a significant role. Healthcare providers should also advance their vigilance to ensure that they provide appropriate medical care. Analysis from Stefan's[10] work demonstrates that the treatment outcomes are significantly dependent on the healthcare team's proactiveness in not only diagnosing cancers early but also applying the correct treatment approaches timely. Such aspects have been proven to tremendously boost the rate of recovery of all related complications of cancers and on quality of life including sexual aspects.

Evidence demonstrates that sexual problems in cancer can be alleviated by incorporating treatment modalities adjusted to the African settings. The resource by Dizon, Suzin and McIlvenna[18] provides compelling information that sexual health, although recognised as a pivotal element in the survival of women who have cancer, it is sparingly addressed, and in most cases ignored. Moreover, Finocchario-Kessler et al.'s[22] present similar observations while exploring various cancer treatments and preventions. Such drawbacks are capped by Maree and Fitch's[23] revelation that within the African context, initiating conversations about their sexuality during and post-cancer treatment remains rare among the healthcare providers due to the underlying cultural and traditional practice barriers. However, Boyle et al. 's[24] challenge the healthcare system as a unit to treat all the cancers that can be treated and comprehensively highlight and address the associated long-term complications such as sexual health. In this perspective, trends reveal that healthcare providers should take the imitative to discuss psycho-social and sexual aspects of the illness and create a safe space to conduct sexual health and psychosocial counselling as an integral component of cancer treatment in both men and women.

Additional findings indicate that implementing interventions for sexual health after cancer treatment by care providers should also be sex and case-based.[8] The authors emphasise that the experts should remain aware of the various topics of concern such as body image, sexual response, intimacy and relationships, the comprehensive sexual function and sense of satisfaction, symptoms of the genitals, and vasomotor. All these elements must be adapted for each patient and vary depending on sex. In this regard, analysis of concepts presented by Bober et al.[25] affirms the importance of a standardised checklist or a guidance model for facilitating the healthcare providers in initiating the discussions about such a sensitive issue in the African context.

Similarly, Carter et al.'s[26] indicate that such professional requirements should not be optional irrespective of the region. Instead, it should be a systematic protocol for addressing the sexual health of all cancer patients across the globe.

This study highlights the plight of cancer survivorsand gaps in health care management in Africa, such as sexual problems related to the disease, and psychosocial and sexual counselling needs to be provided within the primary health care and African cancer centres. Due to the different types of cancers, how they affect the patients and their manifestations, treatment approaches can have different sexual consequences. Moreover, other systematic factors also influence the availability, adequacy, and effectiveness of sexual-oriented treatment in the various care facilities in the region.

Evidence shows that although efforts are underway to open cancer centres in areas African countries, the capacities of health care professionals to handle the psychosocial and sexual counselling remains low.[13] A study conducted in South Africa revealed that most patients were not provided with any counselling around sexual health problems related to cancer treatments. Such a finding is consistent with Maree and Fitch's[11] findings that generalised the unavailability of discussions packaged as therapies for addressing sexual problems in the African cancer facilities due to cultural and traditional complications. Phahlamohlaka et al.[13] further state that the absence of care continuity due to interaction by different care providers complicates the ability to initiate such conversations since no relationships develop between the care providers and the patients. Such a challenge is a direct outcome of the skewed ratio between the number of specialised care providers for every 100,000 patients, which stands at less than 2 in the continent, as reported by Stefan.[10]

The study also uncovered that despite the few instances where sexual issues are tackled, healthcare experts in African cancer centres require both support and training for seamless initiation of successful discussions and management related to psychosocial and sexual complications of cancer disease on patients. There must be guidelines that support the diagnosis and management of psychosocial and sexual impacts of cancer survivors that integrate a systematic approach utilising multidisciplinary inputs.[17] Healthcare professionals should assess the effects of medical and surgical treatment on the sexuality of breast cancer survivors. Evidence indicates the need for making such capacity strengthening holistic and grounded on cultural sensitivities to unearth underlying psychosocial and sexual complications associated with the disease. Such an approach would prevent the care providers from being led by their own misconceptions and pre-judgments that increase the patients' unmet needs, rendering the counselling ineffective in the process. For this reason, the study saw it fit to propose an algorithm of psychosocial and sexual care for cancer survivors living in Africa where this competence is lacking Figure 3.

Overall, the lack of qualified human resource in Africa in the treatment of cancer and sexual complications negatively impacts psychosocial and sexual counselling efforts in African cancer centres. This model is thus intended to support caregiving by health care providers of all levels by providing guidelines on the standard of care designed to address this critical component in the region. The Algorithm highlights the processes and aspects that should be discussed by health care providers from the point of cancer diagnosis and the trajectory of illness. These should take into consideration the psychosocial and sexual impacts of the disease. Ultimately, management is geared towards supporting the phases of disease progression and treatment, survivorship, palliation and end of life care.

CONCLUSION

This paper proposes that the psychosocial and sexual care of cancer patients should be undertaken by a multi-modal team of health care providers eg, Nurses, Community healthcare workers, Oncologists, Gynecologists, Physiotherapists, Family practitioners, Urologists, Psychologist, Social workers

The study recommends that cancer care centres integrate the proposed Algorithm of care to enhance the quality of psychosocial and sexual counselling for holistic care. Such an initiative will underscore the importance of sexual health for all cancer patients in the region and reduce unmet needs.

The facilities should also prioritise the education and training of all healthcare providers because the study proves that a gap in knowledge and awareness of effective strategies to facilitate this care exists in the African context.

The paper underscores the need for promoting psychosocial and sexual counselling and management of cancer patients. Psychosocial counselling for cancer patients should take into consideration the critical impact on their sexuality, such as sexual response, body image, intimacy, relationships, and other related symptoms. The Algorithm of psychosocial and sexual care for cancer patients, is thus a culmination of a collation of various global guidelines for cancer care and s meant to be a teaching tool for health care providers in Africa and beyond. The implications of disseminating and utilizing this proposed algorithm is that it can assist and facilitate the integration of psychosocial and sexual cancer programs into existing health care services in primary health care facilities making it accessible to more cancer patients in the African context.

STUDY LIMITATIONS

This is a rapid scoping review study limited in scope as its inclusion criteria was specified in time and language as it reviewed available online publications in English. The study thus highlights the gap in evidence around the subject area of psychological and sexual complications for cancer survivors in Africa.

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STATEMENT OF AUTHORSHIP

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