

A SCOPING REVIEW PROTOCOL ON THE EFFECT OF GYNAECOLOGICAL CANCERS: THEIR DIAGNOSES AND MANAGEMENT ON THE MENTAL HEALTH OF AFFECTED WOMEN IN SUB-SAHARAN AFRICA

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ABSTRACT

Introduction: Mental health describes an individual's emotional, psychological, and social well-being. The diagnosis of precancers and cancers may result in different mental health manifestations. This review will examine the existing evidence on the effects of diagnosis, management, and prognosis of the four common gynaecological malignancies (ovarian, endometrial, cervical cancer, and endometrial trophoblastic neoplasia) and two precursor lesions (pre-malignant lesions of the cervix and hydatidiform mole) on the mental health of affected women in Sub-Saharan Africa (SSA).

Materials & Methods: Electronic databases will be thoroughly searched, all potentially eligible studies will be downloaded and reviewed, and the data mapping will be done to present the study findings.

Conclusion: The outcome of this scoping review may showcase existing information, gaps in knowledge, and the future direction of research on mental health problems associated with common gynaecological cancers in SSA.

Keywords: Gynaecological cancers, Precancers, Pre-malignant lesions, Mental health

INTRODUCTION

The global cancer burden is rising with an increasing number of women being diagnosed with gynaecological cancers; nearly 20 million new cases of cancers are diagnosed yearly, and about 10 million cancer-related deaths occur each year.¹⁻⁴ Sub-Saharan Africa (SSA) has the highest age-adjusted mortality rates for many cancers including gynaecological cancers.^{2,5} The cancer burden in sub-Saharan Africa is expected to increase and almost double by 2040.⁶ High mortality rates are often associated with cancers in SSA due to late presentation and suboptimal healthcare facilities among other factors. This often implies that a diagnosis of cancer is interpreted as a death sentence.⁷⁻¹⁰

Gynecological cancers contribute a large proportion of the cancer burden globally. Ovarian cancer has an annual incidence of over 300,000 cases globally and contributes to about 200,000 cancer-related deaths.¹¹ About 400,000 cases of endometrial cancers are diagnosed each year with nearly 100,000 cancer-related

deaths.¹² Cervical cancer has an annual incidence of about 600,000 and over 300,000 cancer-related deaths.¹³ In most cases, cervical cancer is preceded by a well-understood pre-malignant lesion which may persist for 10 – 20 years.¹⁴ Gestational trophoblastic disease is a spectrum of placenta-related pathologies ranging from benign molar pregnancies to neoplastic choriocarcinoma and placenta site trophoblastic neoplasia; molar pregnancies are known precursors of choriocarcinoma.¹⁵

Mental health describes an individual's emotional, psychological, and social well-being. According to the World Health Organization (WHO), mental health is "a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to his or her community."¹⁶ Examples of mental health disorders include anxiety disorders (such as panic disorders, and generalized anxiety disorders),

post-traumatic stress disorders, social phobias (specific phobias and obsessive-compulsive disorders), and mood disorders (major depressive disorders and dysthymia), etc.¹⁷

The diagnosis of cancer and/or precancer often results in psychological distress or other wide range of mental ill health manifestations to the patient and their family.¹⁸ The mental health of women and girls with gynaecological cancers in high-income countries is receiving attention and is being documented.^{19,20} It has been shown that at least 20% of women with gynecological cancers may have significant mental illness,²¹ whereas some studies have shown a higher incidence of 44% with major depressive episodes being the most common.²² Interventions are being made through various initiatives, programs, and organized support systems.^{23,24} Chow *et al.* reported the impact of theory-driven psycho-educational intervention on the mental and sexual health of women with gynecological cancers. The culturally appropriate psycho-education intervention was made up of four sessions and given over 12-week intervals in China.²⁵

Chieffo *et al.* also described psycho-oncology intervention sessions with a reduction in attending distress, depression, and anxiety among women with gynaecological cancers in Italy.²⁵ Prior to intervention, a high prevalence of anxiety and depression (36.6% and 37.4% respectively) was noted among these women in Italy.²⁵ Even with such well-established systems in developed nations, mental health problems among patients with cancers result in a high financial burden and remain fraught with myriads of challenges.^{26–28}

In SSA, the integration of mental health assessment of women diagnosed with gynaecological cancer has not been adopted because of the paucity of experts and professionals skilled in performing these roles. Rather, most institutions often offer cancer care based on the clinical assessment of the disease progression, and mental illnesses complicating gynaecological cancers may often go unnoticed. Quality of life including mental health assessment is an important precursor for survivorship after cancer diagnosis in addition to the stage of the disease.^{29,30} The level of existing knowledge of the effects of gynaecological cancers on the mental health of affected individuals in Sub-Saharan Africa remains low.

Aim: This scoping review aims to examine the existing evidence regarding the effects of four gynaecological cancers and two precursor lesions and their management on the mental health status of these women in Sub-Saharan Africa.

MATERIALS AND METHODS

The five-stage approach specified by Arksey and O'Malley will be used.³¹ The framework outlines the following steps for the conduct of scoping reviews: “(a) identifying the research question, (b) identifying relevant studies, (c) selecting studies, (d) charting the data, and (e) collating, summarizing and reporting the results.”³¹ The review will also be following the Preferred Reporting Items for Systematic Review and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR). The study will be carried out over 4 weeks.

The five stages described and specifically adapted for this scoping literature review are further outlined below:

Stage 1: Identification of the research questions

The research questions are:

1. What are the mental health issues among women who are diagnosed with and treated for premalignant lesions of the cervix and hydatidiform mole in sub-Saharan Africa?
2. What are the mental health issues that result from the diagnoses of four gynaecological cancers (cervical, ovarian, endometrial cancer, and gestational trophoblastic neoplasia) among affected women?
3. What are the mental health issues that result from the different modalities of treatment of these precursor lesions and gynaecological cancers among affected women?
4. What are the mental health issues that result from the outcome of treatment and prognoses of these precursor lesions and gynaecological cancers among affected women?
5. What interventions exist to address mental health issues when recognized among women with gynecological cancers and premalignant lesions in sub-Saharan Africa?

Stage 2: Identification of relevant literature

An initial search was performed to determine the extent of existing publications on the association between each of the gynaecological cancers and mental health. After, confirming that there were no ongoing or completed reviews addressing the mental health issues of women with gynaecologic cancers and precancers in Sub-Saharan Africa, we developed a detailed search strategy including the selection of databases. The search strategy was refined by using controlled vocabulary such as MeSH (Medical Subject Headings) terms. A healthcare librarian from the University Of Ibadan College Of Medicine was consulted for guidance on the search strategy of electronic databases.

Daily searches of the electronic databases will be made for one month by two independent observers using the same keywords.

Search criteria

The literature search strategy was discussed with some gynaecological oncologists and a psycho-oncologist. An initial test of the search terms will be conducted on PubMed and Google Scholar to refine the terms, and the search strategy will be modified for all other proposed databases. The search will be made for the four gynaecological cancers (individually and collectively) and premalignant lesions of the cervix and hydatidiform mole, precisely the mental health of affected women in Sub-Saharan Africa. Papers published on diagnoses, management, outcomes and prognoses of gynaecological cancers will be reviewed for each of the following topics: Mental health, anxiety, depression, psychological response, panic, despair, hopelessness, suicide, and denial. Specific Medical Subject Headings (MeSH) and free text terms for "mental health" in combination with each of the common gynaecological cancers and precancers will also be used. Some of the search terms will include "gynaecological cancer", "Precancer", "Premalignant lesion", "radiotherapy", "mental health", "radical pelvic surgery" etc. African country names and truncated terms such as 'sub-Saharan * Africa' 'west* or east* Africa' will also be used to ensure that articles indexed using African country-specific names or regional terms are retrieved.

Stage 3: Study selection

The study selection steps suggested for review of clinical trials by Higgins and Deek.³² will be adapted for use which include the following steps: (1) merge all references into a reference management database and remove duplicates, (2) examine titles and abstracts for obviously irrelevant studies for exclusion, (3) review of full papers to identify eligible papers; (4) contact authors for additional details about the study where necessary to determine eligibility, and (5) make final decisions for study inclusion.³²

Inclusion criteria

All primary studies (e.g., experimental and observational studies – prospective, retrospective, and cross-sectional) addressing mental health issues of women with the four gynaecological cancers and premalignant diseases of the cervix and hydatidiform moles conducted in the sub-Saharan Africa sub-region will be included. Such studies must be available on electronic platforms published in English language or available in English language translations regardless of their timing (date of conduct/publication) and

publication status (whether published or not) will be selected.

Exclusion criteria

Studies with outcomes of interest not specific to mental health concerns of women with the stated four gynaecological cancers and premalignant lesions of the cervix and hydatidiform moles will be excluded. Studies not specific to them will also be excluded. Isolated case reports will be excluded.

Stage 4: Data extraction and charting of the data

The data extraction will be done with the aid of the data extraction form (Table 1) as shown below:

Stage 5. Collating, synthesizing, summarizing, and reporting the results

Data mapping and reporting.

We will follow the PRISMA-ScR guidelines for the review and use a chart for recording the flow of data through the stages of the study selection process based on these guidelines. The reviewers will summarize each study using Table 1 to represent the information in a well-structured format and the summaries will be reviewed and mapped to answer the research questions outlined above.

Data analysis

The data analysis will involve mapping of data extracted to identify knowledge gaps in each of the domains of mental health assessment (Anxiety, Depression, low self-esteem, Quality of Life, etc) Table 1 will be used to demonstrate the existing knowledge relating to the mental health issues of women and girls with four selected gynaecological cancers and two gynaecological precancers in sub-Saharan Africa and the data will be charted as demonstrated by the same

Table 1: Data extraction form

Study Details
Site
Premalignant lesion of cancer/ hydatidiform mole
Category (research question addressed)
Author(s)
Publication year
Title
Aims or research questions
Study design
Country
Study population
Sample size
Key findings
Other findings
Study limitations
Conclusions
Additional comments

table. The available data will also be synthesized and a narrative synthesis will be used to present summaries of existing knowledge and identified gaps in mental health assessment associated with diagnoses and treatment of these gynaecological cancers and precancers in sub-Saharan Africa among affected women.

Dissemination of results

The findings of this scoping review shall be made available to the scientific community through publication in a reputable journal and presentation at conferences.

Limitations

This review may not be able to cover other ongoing studies/programs on the same subject. The review will not be able to determine causality and strength of evidence of the association between mental health problems and gynaecological cancers. We will not be able to assess the quality of evidence as this is not under the purview of a scoping review. It is plausible that the eligible primary studies are likely to be heterogeneous in design due to the wide scope of this review and we do not intend to determine pooled estimates as in systematic review with meta-analysis. Also, a preliminary search has demonstrated paucity of existing knowledge on this subject in Sub-Saharan Africa and this may result in having too few eligible articles for review. Furthermore, we are limiting our search strategy to published papers or reports in the English language, this may limit the interpretation of our findings. We may also miss publications that did not expressly use the domains of mental health status we described as their definition.

CONCLUSION

The rising burden of gynaecological cancers and precancers in Sub-Saharan Africa might be affecting the mental health of women diagnosed and treated for these cancers and precancers. It is necessary to map out the existing information to demonstrate possible missing gaps in knowledge and practices. This information could be a basis to strengthen the role of Psycho-oncology as a sub-discipline in Cancer management, and the future direction of related research endeavours.

Data Availability Statement

Not applicable.

Conflicts of Interest

The authors declare that there are no competing interests.

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