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SYSTEMATIC REVIEW

Evidence on Genitourinary Syndrome of Menopause in Africa: A Systematic Review and Narrative Synthesis of Symptom-Based Studies and Care Gaps

[version 1; peer review: awaiting peer review]

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Abstract

Background

Genitourinary syndrome of menopause (GSM) encompasses a spectrum of vulvovaginal, sexual, and urinary symptoms associated with estrogen deficiency and is increasingly recognized as a major contributor to morbidity among midlife and older women. While global evidence suggests that GSM is highly prevalent, data from African populations remain fragmented, often reported as isolated symptoms rather than a unified clinical syndrome. This limits understanding of burden, context, and healthcare needs across the continent.

Methods

Based on PRISMA 2020 and SWiM recommendations, a systematic review with narrative synthesis was performed to investigate evidence on GSM and other urogenital symptoms in Africa. PubMed/MEDLINE, Scopus, Web of Science and African Journals Online were searched,

and manual searches were used to supplement them. Only primary studies performed in African populations that reported either formally defined GSM or menopause-related urogenital symptoms were eligible.

Results

Eleven articles were included and most of them were cross-sectional studies in Ghana, Nigeria, Ethiopia, and Zimbabwe. GSM was only explicitly defined in one study, which reported a prevalence of 46.8%. Most studies relied on proxy symptom measures, with vaginal dryness ranging from 7.2% to 71.4%, sexual symptoms reported in approximately 40–90% of participants, and urinary symptoms varying widely depending on measurement approach. High heterogeneity was noted, which was motivated by the difference in the population of the studies, instruments, and sociocultural contexts.

Conclusions

Evidence on GSM in Africa is limited, heterogeneous, and geographically concentrated, with most studies relying on symptom-based proxies rather than standardized definitions. Nevertheless, irrespective of these shortcomings, the impact of menopause-associated urogenital symptoms seems to be massive and generally in line with world trends. Addressing this gap requires standardized measurement approaches, expanded research across underrepresented regions, and integration of menopause care into health systems, with attention to sociocultural factors influencing symptom reporting and care-seeking.

Keywords
Genitourinary syndrome of menopause, Menopause, Urogenital symptoms, Vaginal dryness, Sexual dysfunction, Urinary symptoms, Africa, Prevalence, Sociocultural factors, Healthcare access, Narrative synthesis, Systematic review

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List of Abbreviations

GSM: Genitourinary Syndrome of Menopause
MRS: Menopause Rating Scale
PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SWiM: Synthesis Without Meta-analysis
JBI: Joanna Briggs Institute
QoL: Quality of Life
MHT: Menopausal Hormone Therapy
LMICs: Low- and Middle-Income Countries
AJOL: African Journals Online
FGD: Focus Group Discussion
HIV: Human Immunodeficiency Virus
WHO: World Health Organization

Introduction

Menopause is an increasingly important component of women's health globally, particularly in low- and middle-income settings where improvements in life expectancy mean that many women now live for several decades after the cessation of menstruation.[1,2] Despite this demographic transition, menopause-related health concerns remain unevenly prioritized within clinical practice and public health systems.[3,4] As noted by the World Health Organization, vaginal dryness, dyspareunia, and urinary issues are typical symptoms of menopause that can significantly worsen the quality of life, sexual activity, intimate relations, and psychosocial functioning.[5–7] Nevertheless, clinical identification and treatment of these symptoms are not consistent, especially in low-resource contexts.[2–6,8] At a global level, the presence of at least one GSM-related symptom has been reported in roughly one third to three quarters of postmenopausal women, with estimates ranging from about 27–84%.[1,9–11]

Genitourinary syndrome of menopause (GSM) has emerged as a clinically important framework that integrates vulvovaginal, sexual, and lower urinary tract symptoms associated with estrogen deficiency into a single, progressive condition.[9,10,12,13] This terminology, introduced by the International Society for the Study of Women's Sexual Health and the North American Menopause Society to replace narrower constructs such as "vulvovaginal atrophy," reflects a broader understanding of the anatomical, functional, and quality-of-life consequences of menopausal urogenital changes.[2,10,12,13] GSM is currently being widely considered as a chronic illness that can occur to up to half of postmenopausal women and that can have cumulative consequences on sexual functioning as well as relationships with partners and general well-being when unidentified or untreated. Nevertheless, this terminology was being adopted in the scientific literature comparatively recently, and its adoption has been uneven throughout the world.[10,13]

In African settings, this temporal shift in terminology presents a fundamental challenge for evidence synthesis. The majority of the primary research on menopause carried out in Africa predates the use of GSM nomenclature and, instead, describes isolated or clustered symptoms like vaginal dryness, dyspareunia, urinary frequency, bladder issues, or generic urogenital symptoms.[2,6,14] As shown in the existing evidence base on African populations, there is only one study to explicitly operationalize GSM with both symptom and clinical measures, with a prevalence of 46.8% in a tertiary reproductive-health context in Ghana.[6] Conversely, most research studies have been based on symptom-based measures like Menopause Rating Scale or non-validated survey scales, which generate heterogeneous estimates of individual symptoms (like vaginal dryness, which has been estimated to be between approximately 7 percent and over 70 percent among different populations and contexts).[4,8,9]

Such dependency on proxy symptom report brings critical methodological and conceptual issues. While symptom-based data provide valuable insight into the burden of menopause-related urogenital morbidity, they are not equivalent to formally defined GSM. Combining this type of data indiscriminately is prone to cause construct inflation, where different symptom patterns are viewed as being indicative of one clinical syndrome.[15] On the other hand, limiting the scope of the analysis to those studies that explicitly involve the use of GSM terminology would grossly underestimate the available evidence in Africa and the available evidence would mask patterns that are clinically relevant. A middle ground, in this case, is that direct GSM evidence and proxy symptom-based studies need to be explicitly differentiated, and that their respective contributions to the overall evidence base should be carefully regarded.

In addition to the definition challenges, the current African studies show that urogenital symptoms related to menopause are all placed in intricate sociocultural situations. Which influence not only the experience of symptoms but also their reporting.[6,14,16] A range of Nigerian, Ethiopian, and Ghanaian studies refer to menopause as a normal aging process, without the need to intervene, and a significant percentage of women believe that symptoms are unavoidable and cannot

be treated.[6,14,16] Additional qualitative and survey data indicate that stigma and privacy issues as well as cultural norms about sexuality are factors that limit disclosure of genital and sexual symptoms, not only in surveys but in clinical consultations too.[1,4,14] In rural and low-resource settings, factors such as widowhood, changing family roles, and economic constraints may further influence coping strategies and access to care.[16]

These sociocultural influences are exacerbated by health-system factors. In various African contexts, the literature indicates a low rate of medical consultation of menopausal symptoms, and in some cases, some women consult informal health practitioners (patent drug sellers) more than formal healthcare professionals.[6,14] Awareness and utilization of menopause-specific treatments, including menopausal hormone therapy or local estrogen, are consistently low, with several studies reporting little or no current use among surveyed populations.[8] These findings indicate that the urogenital morbidity associated with menopause can be under-reported and under-treated in current healthcare systems and is a sign of clinical training, patient education, and service provision gaps.

When combined, these trends suggest that the apparent lack of GSM-specific studies in Africa is not merely a reflection of insufficient avenues of study, but they also have underlying problems with terms and measurement, sociocultural interpretation, and health-system capacity.[15] Notably, this lack of formal GSM research cannot be interpreted as low burden, but instead it is an indicator of under-characterization in the current research paradigm. It is thus necessary to have a critical and systematically structured synthesis capable of incorporating both direct and proxy evidence whilst keeping conceptual clarity and methodological transparency.

This review aims to synthesize African primary evidence on genitourinary syndrome of menopause and closely related menopause-associated urogenital symptoms. Specifically, it examines the prevalence and patterns of reported symptoms, explores sociocultural factors influencing symptom interpretation and disclosure, and identifies healthcare system gaps in recognition and management. Given the heterogeneity in study designs, populations, and outcome definitions, a systematic review with narrative synthesis was undertaken to provide a transparent and methodologically appropriate account of the available evidence.

Methods

This review was conducted as a systematic review with narrative synthesis to examine African evidence on genitourinary syndrome of menopause (GSM) and closely related menopause-associated urogenital symptoms. The review was performed in accordance with the PRISMA 2020 reporting framework, and synthesis was organized in accordance with the principles of the Synthesis Without Meta-analysis (SWiM) guideline due to the estimated heterogeneity of the study populations, the definitions of outcomes, and methods of their measurement.

Information sources and search strategy.

A comprehensive search strategy was developed to identify relevant studies across multiple electronic databases, including PubMed/MEDLINE, Scopus, Web of Science Core Collection, and African Journals Online (AJOL). The search included controlled vocabulary and free-text terms in three main domains: menopause-related words, GSM and urogenital symptom words, and Africa-specific geographic words. The search of the literature was conducted until 20 March 2026. To be relevant to the current state of clinical knowledge and to capture the shift in terminology that took place before the formalization of genitourinary syndrome of menopause (GSM), the search was limited to articles published since January 2010 and until April 2026. This time frame was selected to include both pre- and post-GSM terminology studies while maintaining consistency with modern definitions and reporting practices.

Search terms were customized to each database and contained: genitourinary syndrome of menopause, vaginal dryness, dyspareunia, urogenital symptoms, urinary symptoms and sexual problems in combination with menopause-related terms and country-specific African identifiers. There were no limitations on the date so that pre-GSM terminology studies could be captured.

To improve the retrieval of regionally indexed studies, additional strategies involved, manual searching of reference lists, citation tracking and selective search of regional journals and repositories. These measures were taken in order to reduce publication and indexing bias, which has been identified as a limitation of African health research. Grey literature (theses, institutional reports and documents held in repositories) was deemed to be eligible where it satisfied the predetermined inclusion criteria as well as it offered extractable primary data about menopause-related urogenital symptoms or other outcomes pertinent to sociocultural or health-system outcomes, but it was not the primary source on which prevalence estimates were made.

Eligibility criteria

1. The inclusion criteria were as follows:

2. Conducted in an African setting;

3. Primary empirical studies (quantitative, qualitative, or mixed methods);

4. Perimenopausal, postmenopausal, or midlife women were included;

5. Reported either:
    a. explicitly defined GSM using symptom-based and/or clinical criteria; or

    b. menopause-related urogenital symptoms (e.g., vaginal dryness, dyspareunia, urinary symptoms, sexual dysfunction) taken as proxies of GSM;

6. Data on the prevalence of symptoms, symptom patterns, sociocultural factors, care-seeking, or healthcare system characteristics reported.

Studies were excluded if they were reviews, editorials, non-African studies, intervention-only studies without extractable baseline data, or lacked relevant urogenital or health-system outcomes.

In order to overcome the conceptual heterogeneity, the included studies were categorized into two predefined groups:

a. Direct GSM studies, and

b. Proxy symptom-based studies.

Synthesis and interpretation were guided by this classification.

Study selection

All the identified records passed through two-step screening consisting of title and abstract screening and full-text screening. Two reviewers conducted screening using pre-defined eligibility criteria. Any discrepancies were agreed upon by discussion and where needed, a third reviewer was involved and inter-reviewer agreement was determined qualitatively.

Data extraction

A standardized, pilot-tested extraction form was used to extract the data. Variables that were extracted were characteristics of the study (author, year, country, design, setting), population characteristics, definition of menopausal status, measurement instruments, prevalence, frequency of symptoms, sociocultural, patterns of care seeking, and health-system indicators.

One reviewer carried out data extraction, which was independently checked by a second reviewer to guarantee accuracy and completeness.

Quality appraisal

Methodological quality was assessed using the Joanna Briggs Institute (JBI) critical appraisal tools appropriate to study design, including the JBI checklist for analytical cross-sectional studies and the JBI qualitative assessment tool.

Quality assessment was based on sampling, validity of measurement, confounding control and clarity of reporting. Study quality was not used as a basis for exclusion but informed the interpretation of findings within the narrative synthesis.

Data synthesis

Considering a high degree of heterogeneity in the populations of the studies, the definitions of outcomes, and the measurement tools, quantitative meta-analysis was not conducted. Rather, an organized narrative synthesis was involved with SWiM principles. The quality of the studies was factored in interpretation whereby more weight was given to the results of high-quality studies.

Research was categorized in four domains of analysis:

1. Direct GSM burden and prevalence.
2. Proxy urogenital symptom burden
3. Sociocultural determinants of symptom experience and reporting
4. Gaps in healthcare access and system levels.

Within each domain, findings were compared across studies to identify patterns, consistencies, and sources of heterogeneity. The differences between prevailing estimates were explained in terms of study design, population characteristics, symptom measures tool and denominators.

Protocol registration
This review was not prospectively registered on PROSPERO. To improve the transparency, all methodological processes, such as eligibility criteria, search strategies, screening decisions, and synthesis approach, are clearly reported in line with PRISMA 2020 guidelines.

Statistical analysis
All analyses were performed using R software (version 4.5.2) with the meta and metafor packages.

Results
Study selection and characteristics
A total of 51 records were identified through database and supplementary searches, of which 38 were screened after duplicate removal. Nineteen full-text articles were assessed for eligibility, and 11 studies met inclusion criteria for the core narrative synthesis. Details are presented in the study characteristics table (Table 1) and the PRISMA flow diagram (Figure 1).

Geographical distribution of studies and methodology
The geographic coverage of the studies included was not evenly spread with evidence being concentrated in a few countries. Findings were located in Ghana and Nigeria (West Africa), Ethiopia (East Africa), and Zimbabwe (Southern Africa), and significant parts of the continent, such as North Africa, Central Africa, and most of the Francophone countries, had little to no extractable evidence in the context of this review.

West African evidence was dominated by Ghanaian and Nigerian studies, including the only study that directly operationalized genitourinary syndrome of menopause (GSM) using both symptom-based and clinical criteria. By comparison, the majority of Nigerian research involved community- or clinic-based research on symptom clusters with non-standardized or modified measures. In East Africa, much of the evidence was based on Ethiopian studies using the Menopause Rating Scale (MRS) both in community and facility. Evidence in Southern Africa was sparse and only one Zimbabwe study was devoted to the severity of symptoms and contextual influences, such as HIV status and quality-of-life outcomes.

The methodological approaches in all regions were diverse, with the majority of the studies based on cross-sectional designs and self-reported measures of symptoms. Only one of the studies included clinical examination in the definition of GSM and the rest used proxy measures, like vaginal dryness, urinary symptoms or sexual dysfunction. This difference in methods of measurement leads to differences in the reported prevalence and precludes comparability across settings.

The geographic and methodological distribution of included studies is illustrated in Figure 2, which highlights both the concentration of evidence in a small number of countries and the substantial gaps across large regions of the continent.

Direct GSM evidence
Only one eligible study directly assessed GSM using a composite of symptoms and genital examination findings. This tertiary-clinic study in Ghana showed a total prevalence of 46.8% GSM, and a prevalence with an upward trend based on the reproductive stages of the women, including premenopausal or postmenopausal women. Vaginal symptoms were more common in this study compared to urinary symptoms and GSM was linked to decreased sexual activity and low quality of life.

Table 1. **Study Characteristics of Included Studies.**

Article ID	Country	Setting	Study Design	Sample Size	Menopausal Definition	Measurement Tool	GSM Classification	Study Quality
[6]Adomako 2024	Ghana	Tertiary clinic	Analytic cross-sectional	378	Menstrual pattern (pre-, peri-, post-)	DIVA + clinical signs	**Direct GSM**	JBI 7/8
[17]Setorglo 2012	Ghana	Urban community	Cross-sectional	280	≥45 years menopausal	Symptom survey	Proxy	JBI 5/8
[18]Odiari 2012	Ghana	Community	Qualitative	34	Menopausal women	Interviews	Proxy (contextual)	JBI 7/10
[19]OlaOlorun 2009	Nigeria	Urban community	Cross-sectional	1,189	Age 40–60	MRS	Proxy	JBI 7/8
[20]Agwu 2008	Nigeria	Rural community	Cross-sectional + FGD	186	Postmenopausal	Questionnaire + FGD	Proxy	JBI 5/8
[21]Dienye 2013	Nigeria	Hospital clinic	Cross-sectional	385	Menopausal women	Modified MRS	Proxy	JBI 6/8
[22]Akindele 2023	Nigeria	Facility (semi-urban)	Cross-sectional	250	Postmenopausal	Questionnaire	Proxy	JBI 5/8
[16]Yisma 2017	Ethiopia	Urban community	Multi-stage cross-sectional	226	Peri/ postmenopausal	MRS	Proxy	JBI 7/8
[23]Asfaw 2024	Ethiopia	Gynecology clinics	Cross-sectional	296	Age 40–60	MRS + MHT	Proxy	JBI 7/8
[24]Namara 2025	Ethiopia	Community	Cross-sectional	437	Postmenopausal	MRS	Proxy	JBI 7/8
[25]Madanhire 2023	Zimbabwe	Urban/HIV clinics	Cross-sectional	378	Clinical staging	MRS-II	Proxy	JBI 8/8

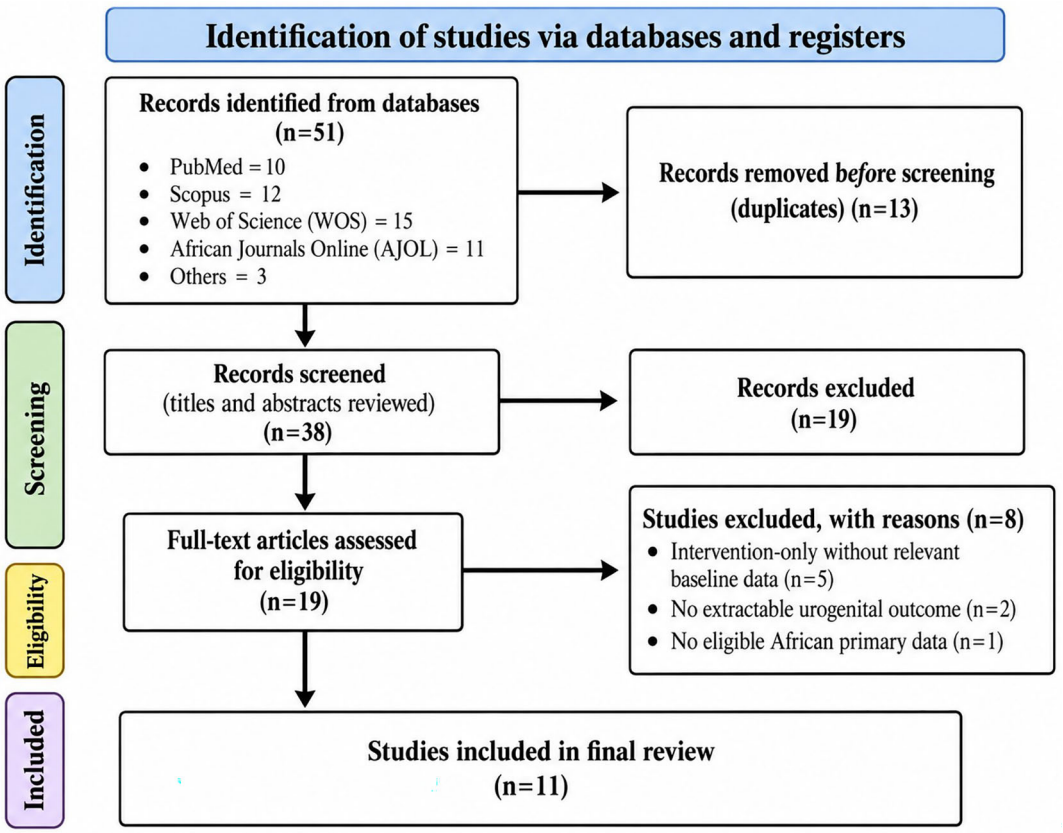


Figure 1. PRISMA flow diagram. Included studies were predominantly cross-sectional in design and geographically concentrated in Ghana, Nigeria, Ethiopia, and Zimbabwe, with limited representation from other African regions. Only one study directly operationalized the genitourinary syndrome of menopause (GSM) based on symptom-based as well as clinical criteria, whereas the other studies examined menopause-related urogenital symptoms with proxy measures, such as the Menopause Rating Scale (MRS), structured questionnaires, or qualitative interviews. The quality of the whole study was moderate, and the most frequent limitations were a single-site sample, the use of self-reported symptoms, and irregular methods of measurement.

No further African research that would fit formal GSM diagnostic criteria were found, meaning that current, continent-wide prevalence estimates of GSM cannot be made using standardized definitions.

Proxy urogenital symptom burden

Most of the evidence included was based on symptom-based assessments in the absence of widespread GSM-specific studies. Across studies using MRS-type instruments, urogenital symptom prevalence ranged from 30.5% in community-based samples to 58.4% in clinic-based populations. The prevalence of overall menopausal symptom burden was high, with studies estimating it as 84.5 percent in an urban Nigerian community sample, to 89.9 percent in a sample of clinic patients in Ethiopia (see Table 2) .

Sexual complaints and urinary symptoms were also prominent yet had a significant amount of variability. Urinary symptom prevalence ranged from 7.79% in aggregated symptom measures to over 50% when specific symptoms such as urinary frequency were examined. In several studies, sexual issues were reported in around 40–41 percent of subjects, but higher rates were found in those that employed broader constructs like loss of libido. These results suggest that the prevalence of symptoms is extremely dependent on the method of measurement and the definition of outcomes.

Patterns and heterogeneity of symptoms

Across studies, menopause-related symptom profiles were heterogeneous and frequently involved multiple domains. Musculoskeletal symptoms and fatigue tended to occur with vasomotor and urogenital symptoms, and urogenital symptoms became more prominent in postmenopausal women.

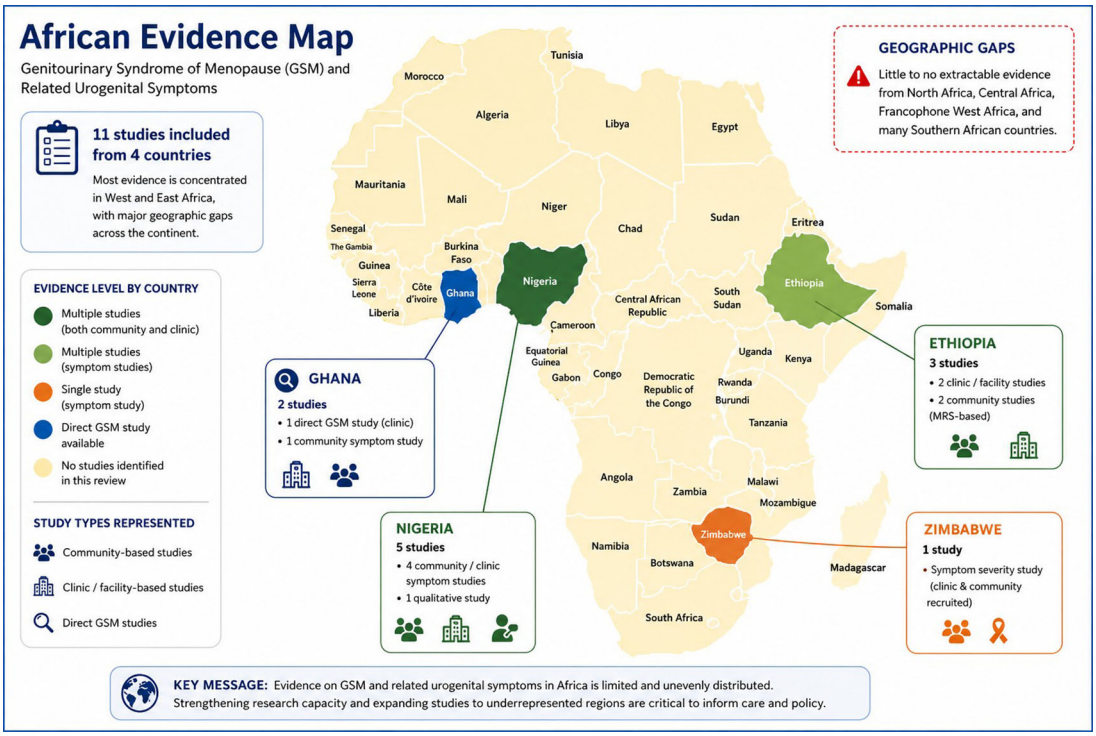


Figure 2. Geographic distribution of included studies across Africa, highlighting concentration in Ghana, Nigeria, Ethiopia, and Zimbabwe and absence of data from large regions of the continent.

Table 2. Prevalence and patterns of urogenital symptoms and care-seeking behaviors.

Study	GSM/ Symptom Prevalence	Vaginal Dryness (%)	Sexual Symptoms (%)	Urinary Symptoms (%)	Key Sociocultural Findings	Care-Seeking Patterns
[6]Adomako 2024	GSM: 46.8%	57%	46.4%	34.5%	Less frequent sex linked to higher GSM	Not reported
[17]Setorglo 2012	Not stated	71.4%	Not specified	Not specified	52.5% saw symptoms as unavoidable	10.7% sought care
[18]Odiari 2012	N/A	Not quantified	Not quantified	Not quantified	Self-management, non-hormonal approaches	Mixed formal/ informal
[19]OlaOlorun 2009	Any symptom: 84.5%	Not specified	40.4%	Not specified	Occupation influences symptom burden	Not reported
[20]Agwu 2008	Not clear	35.5%	Not specified	38.7%	Widowhood, empty-nest worsen coping	Not reported
[21]Dienye 2013	Severity-based	Not specified	92.47% (libido loss)	7.79%	Not emphasized	Drug sellers 51.4%, health workers 44.7%

Table 2. *Continued*

Study	GSM/ Symptom Prevalence	Vaginal Dryness (%)	Sexual Symptoms (%)	Urinary Symptoms (%)	Key Sociocultural Findings	Care-Seeking Patterns
[22]Akindele 2023	High prevalence (not quantified)	7.2%	~42%	52.8%	Sexual norms influence interpretation	44% visited doctors
[16]Yisma 2017	Urogenital: 30.5%	64%	27%	26.1%	Limited awareness/ discussion	Not collected
[23]Asfaw 2024	Any symptom: 89.9%	27% (sexually active)	41.3%	39.2%	Lower income linked to higher burden	~20.3% sought care
[24]Namara 2025	Severe: 30.4%	36.4%	41.0%	33.2%	69.8% poor knowledge; stigma	Not reported
[25]Madanhire 2023	Severity varies (HIV-linked)	Not specified	~33–50%	Not specified	HIV, poverty increase burden	Not primary focus

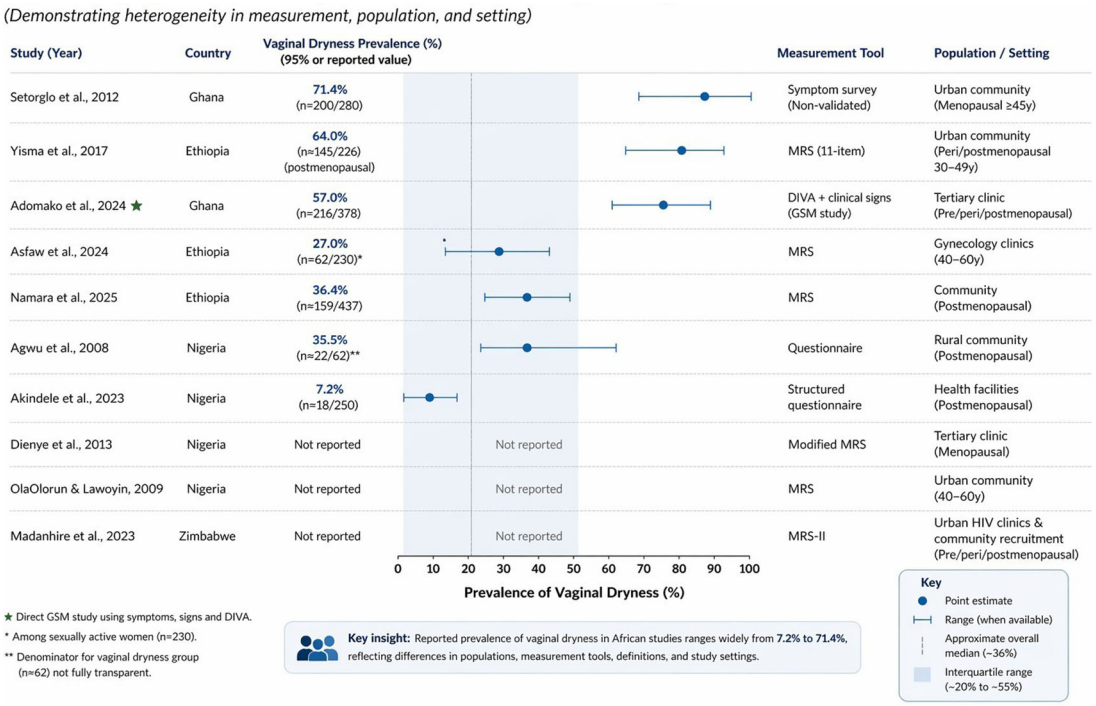


Figure 3. Variability in reported prevalence of vaginal dryness across included studies, illustrating substantial heterogeneity.

The difference in the reported symptom burden was due to a number of factors, which involve differences in study population (community based versus clinic-based), the distribution of menopausal stage, measurement tools and sociocultural factors that influence symptom reporting. Specifically, those studies which limited the analysis to women who were sexually active provided different prevalence rates of vaginal symptoms than those which included all the participants. These sources of heterogeneity did not allow any meaningful quantitative pooling of prevalence estimates.

Table 3. Healthcare system gaps across studies.

Domain	Evidence Pattern
Awareness	Generally low; many women unaware of treatment options
Care-seeking	Often <50%, sometimes <30%
First contact	Informal providers (e.g., drug sellers) common
Hormone therapy use	Extremely low or absent
Clinical screening	Not routinely implemented
Sexual health discussion	Rare in clinical settings

Variability and heterogeneity of symptoms (Table 2 and Figure 3)

There was significant variation in reported prevalence of menopause-related urogenital symptoms across the studies included, especially vaginal dryness. Prevalence estimates have been reported as low as 7.2% in a Nigerian facility-based study and 71.4% in an urban Ghanaian survey with intermediate estimates in Ethiopian and rural Nigeria populations. This broad spectrum represents variations in the populations studied, such as community versus clinic-based, and distribution of menopausal stage, and other inclusion criteria, such as being restricted to sexually active women. Moreover, differences in measurement methods, such as the application of standardized measures, such as the Menopause Rating Scale (MRS), as opposed to non-validated symptom questionnaires, led to disparities in prevalence reports.

Figure 3 demonstrates the prevalence of vaginal dryness distribution among the studies and shows the degree of heterogeneity in the estimates reported. The observed variability, spanning more than a tenfold difference between the lowest and highest reported values, underscores the influence of methodological and contextual factors on symptom reporting and limits the comparability of prevalence estimates across settings.

This degree of heterogeneity precluded meaningful quantitative pooling of prevalence estimates and supports the use of a narrative synthesis approach for interpreting symptom burden across studies.

Sociocultural determinants

Sociocultural findings were consistent across multiple settings. A number of studies documented that menopause was not generally considered a medical condition but a natural aging process and many women did not seek professional medical attention to treat the symptoms. Qualitative and mixed-methods studies indicated that symptom perception and management were influenced by information sources, cultural norms, and social roles.

Coping strategies were found to differ with factors like widowhood, shifting family structures and financial limitations. In addition, stigma and privacy surrounding sexual health were reported as potential contributors to underreporting of genital and sexual symptoms. One study identified increased symptom severity to be linked with broader structural factors, such as HIV status, food insecurity, and unemployment, indicating that both biological and social determinants play a role in menopause-related morbidity.

Healthcare access and system gaps

Healthcare-seeking for menopause-related symptoms was consistently low across studies (table 3). Only a third of women who experienced climacteric symptoms in a study in Nigeria sought hospital attention and other study reported a higher rate of consultation with the vendors of patent drugs than with medical practitioners. In Ethiopian clinic-based studies, about a fifth of women indicated that they sought professional care.

There was poor awareness and little use of menopause-specific treatments. Several studies found no recent menopausal hormone therapy use and several populations were not very aware of such treatment. These results indicate that urogenital symptoms associated with menopause are not recognized and dealt with in an organized health care setting.

Moreover, a number of studies also pointed at the lack of systematic screening or counseling programs on menopause-related disorders, such as GSM, in the everyday clinical practice. This integration failure was observed in primary care, gynecological environments, and chronic disease set-ups.

Discussion

Principal findings in global context

This review provides the first structured synthesis of GSM-related evidence in Africa. Our report shows that the evidence on genitourinary syndrome of menopause (GSM) in Africa is extremely limited, methodologically heterogeneous, and geographically fragmented, with only a single study directly operationalizing GSM using combined symptom and clinical criteria.[6] Our report shows that the evidence on genitourinary syndrome of menopause (GSM) in Africa is extremely limited, methodologically heterogeneous, and geographically fragmented, with only a single study directly operationalizing GSM using combined symptom and clinical criteria.[6] On the contrary, international findings suggest that GSM is widespread among the population, and pooled prevalence rates are about 55.1% in postmenopausal women, as well as that there is a high level of symptom burden during menopausal phases.[8,15,26]

When juxtaposed with this international context, the Ghanaian estimate of 46.8% GSM prevalence seems more widely aligned with international trends.[6,26] The lack of further GSM-specified studies on the continent, however, does not allow any meaningful regional comparison and may indicate that the seemingly low burden is merely under-characterized.

At the symptom level, the wide range observed in this review—particularly for vaginal dryness (7.2%–71.4%)—mirrors global variability, where prevalence ranges from 13% to 87% across studies and settings. This intersection implies that African results are not unique but are influenced by the identical mixture of biological, methodological, and sociocultural factors which are observed worldwide.

GSM as a syndromic construct: implications for African evidence

A key insight from this review is the importance of recognizing GSM as a syndromic condition defined by clusters of genital, sexual, and urinary symptoms, rather than isolated complaints.[9,27] Vaginal dryness, dyspareunia, lack of lubrication, and urinary symptoms are all fundamental elements in international literature that often co-occur, and many women often experience more than one of them at a time.[28,29]

This syndromic framework, however, is mostly missing in African studies. Rather, symptoms are described either individually or as a subset of more general menopausal symptom scales, which restricts the potential to reflect the multidimensionality of GSM. This fragmentation also helps to drive under-recognition and underestimation of burden since single-symptom reporting does not capture the cumulative effects of multiple co-occurring symptoms on quality of life and sexual health.

Importantly, the reliance on proxy symptom data—while necessary—introduces a structural limitation in interpretation. There are no standardized definitions or approved GSM-specific instruments that have been tailored to the African situation thus it is unclear whether there is variability or whether the variability is due to epidemiological differences or variation in the methods. This is consistent with the international demands of a better diagnostic clarity and culturally sensitive measurement instruments.[9,15]

Explaining heterogeneity: beyond measurement to context

Although methodological variation is an important cause of heterogeneity, contextual factors are also proposed in this review to be equally important causes of heterogeneity. Sociocultural data shows that menopause is most commonly viewed as a natural and unavoidable stage of life, thus many women tend to normalize the symptoms and do not seek medical attention.[17,20] The trend is similar to other international contexts where the symptoms associated with menopause are not reported extensively because of normalization, stigma, and ignorance.[30,31]

Cultural norms surrounding sexuality further shape symptom reporting. In both African and international research, genital and sexual symptoms are often discussed as confidential or taboo, which contributes to the unwillingness to disclose them to clinicians.[18,32,33] Women tend to seek informal support, including family support or internet resources, and only resort to professional help when symptoms are acute.[34,35]

These dynamics suggest that observed variability in prevalence is not merely a methodological artifact but reflects interaction between biological processes and sociocultural filters. In settings where menopause is positively reframed or where information and support are accessible, women report greater acceptance and agency in symptom management.[36,37]

Health system constraints and missed clinical opportunities

This review has results that are consistent with international evidence to indicate that GSM is persistently underdiagnosed and undertreated, even in well-resource environments.[9,29,38] In Africa, these issues are further compounded by low levels of awareness, restricted access to care and lack of organized menopause care.

Patient-level barriers—such as normalization of symptoms, embarrassment, and fear of treatment—are compounded by provider-level factors, including limited training and failure to proactively inquire about symptoms.[39,40] At the system level, the lack of integration of menopause care into primary healthcare pathways, absence of routine screening, and limited availability of treatment options further restrict access to care.[8,41]

These multilevel barriers suggest that GSM is not simply under-researched but is structurally deprioritized within health systems, resulting in missed opportunities for early identification and management. The intersection of patient, provider and system level barriers highlights the necessity of context-specific and integrated approaches to menopause care.

Geographic inequities and evidence gaps

One of the striking findings in this review is the geographic clustering of evidence to a few countries, and vast areas of Africa are still unrepresented. The trend is also reflective of world-wide trends whereby menopause research is more often done in high-income contexts and African populations are underrepresented in epidemiological and clinical research.[8,36,42]

The main evidence gaps are a lack of population prevalence studies, insufficient data on the severity and quality of life of symptoms, and a lack of information about the route of care and the use of treatment options. In addition, African populations are rarely included in the development and validation of GSM measurement tools, raising concerns about cultural validity and measurement equivalence.

These gaps suggest the necessity of strategic research agenda to broaden geographical coverage, enhance the quality of methods, and to produce context-specific evidence.

Implications for policy, practice, and research

This review has various implications in terms of action:

1. Clinical practice
    - Routine opportunistic screening for urogenital symptoms should be integrated into primary care and reproductive health services.
    - Proactive inquiry methods must be embraced by the clinicians since most women fail to report the symptoms voluntarily.
2. Health systems
    - National reproductive health and non-communicable disease frameworks should include menopause care including GSM.
    - Development of context-appropriate clinical pathways for diagnosis and management is needed.
3. Public health and education
    - Targeted awareness campaigns should address normalization, stigma, and misconceptions about menopause and GSM.
    - Community based interventions: Interventions should be based on the existing social networks to enhance information dissemination and care seeking behavior.
4. Research priorities
    - Carry out multicounty, population-based studies to determine representative prevalence estimates.
    - Develop and test culturally relevant GSM measurement instruments.

- Explore access to treatment, adherence, and outcomes in African contexts.
- Increase research in underrepresented areas, such as Francophone and Central Africa.

Strengths and limitations

This review offers a synthesis of evidence on African GSM and associated symptoms in a comprehensive, methodologically clear and transparent way, incorporating epidemiological, sociocultural, and health-system perspectives. It tackles one important conceptual issue in the literature by clearly differentiating between GSM-defined and proxy symptom studies.

Nevertheless, a number of limitations should be considered. The evidence base is limited and cross-sectional research mainly predominates, restricting causal inference. Use of proxy symptom data poses a risk of misclassification and limits comparability between studies. The geographic representation is small, which minimizes the generalizability. Moreover, the use of different measurement instruments and definitions makes synthesis and interpretation difficult. Lastly, direct comparative analysis between African and non-African populations is not done even though the findings were put into perspective by utilizing global literature.

Conclusion

GSM and related urogenital symptoms appear to be common among African women, with prevalence patterns broadly consistent with global evidence. The absence of standardized definitions, geographic coverage, and high methodological heterogeneity, however, limit interpretation. Addressing these gaps will require coordinated efforts to improve measurement, expand research, and integrate menopause care into health systems, with careful attention to sociocultural context and barriers to care.

Consent to participate

Not applicable. This study is a systematic review and meta-analysis based exclusively on previously published studies and did not involve collection of primary data from human participants.

Consent for publication

Not applicable.

Ethical approval

Ethical approval was obtained from the Research Ethics Committee of Kampala International University with registration number- **KIU-2025-1839.**

Data availability

Figshare. *Supplementary Materials for: "Evidence on Genitourinary Syndrome of Menopause in Africa: A Systematic Review and Narrative Synthesis of Symptom-Based Studies and Care Gaps".* https://doi.org/10.6084/m9.figshare.32394117.v1.[43]

This project contains the following underlying data:

- PRISMA 2020 checklist.
- Full database search strategies
- Included studies
- Prisma flow chart
- Screening Log

All data analysed during this study are included in the published article, its supplementary information files, and the figshare repository listed above.[43] The datasets used for the review were derived from publicly available studies cited in the reference list.

Data are available under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) license.

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