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*Review Article*

# Towards Integrated Mental Health Systems in African Universities: A Systematic Review and Meta-Synthesis of Interventions, Barriers, and Policy Gaps

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**Abstract -**

**Background:** Globally, mental health disorders such as depression, anxiety, and stress are rising sharply among university students, with recent global estimates showing up to 40% affected. In African universities, however, responses to this crisis remain fragmented, underfunded, and under-researched.

**Objective:** This systematic review evaluates the effectiveness, diversity, and contextual barriers of university-based mental health support services in Africa, contextualized against global prevalence benchmarks from recent umbrella reviews.

**Methods:** Following PRISMA guidelines, 38 eligible studies from 15 African countries were analyzed, encompassing randomized controlled trials, cross-sectional surveys, cohort, and qualitative designs. Risk of bias was assessed using CASP, JBI, and RoB 2.0 tools. Findings were synthesized narratively and compared against global prevalence trends drawn from umbrella meta-analyses (Paiva et al., 2025).

**Results:** Support services across African universities are mostly limited to basic counseling and awareness efforts. Peer-led interventions and digital platforms show promise but remain underutilized. Barriers include stigma, professional shortages, and policy fragmentation. Compared to global prevalence estimates of 35–41% for CMD symptoms, student service uptake across African campuses remains below 10%. The review identifies integrated, multi-tiered interventions and policy alignment as critical enablers of success.

**Conclusion:** There is an urgent need to institutionalize mental health services within African higher education systems through policy mandates, capacity investment, and stigma reduction. A proposed African University Mental Health Systems Model (AUMH-SM) offers a roadmap for reform, embedding mental health into university governance, student services, and national health strategies.

**Keywords -** Common Mental Disorders, Mental Health Services, African Universities, Student Well-Being, Policy Integration, Systematic Review.

## 1. Introduction

Mental health challenges among university students have emerged as a global public health crisis. This concern is particularly pressing in low- and middle-income countries (LMICs), where rapid expansion of higher education has not been matched by investments in student support services. Recent global estimates from an umbrella review of 62 meta-analyses involving over 8.7 million participants reveal that approximately 35.4% of university students report mild depressive symptoms, 40.2% report mild anxiety, and over 41% struggle with sleep disturbances (Paiva

et al., 2025). These figures underscore the unprecedented burden of common mental disorders (CMDs) during university life, a critical transitional phase marked by academic pressure, social identity formation, financial strain, and emerging adulthood.

In African universities, this burden is compounded by structural deficits, including underdeveloped mental health infrastructure, cultural stigma, inadequate policy frameworks, and critical shortages of trained mental health professionals (Petersen et al., 2016; Oppong Asante & Andoh-Arthur, 2015). As higher education enrollment increases across the continent, African students are navigating complex psychosocial environments with limited institutional support. While global mental health responses—especially in high-income countries—have evolved to include multi-tiered, preventive, and technology-enabled care systems, many African university systems remain reliant on fragmented and reactive approaches.

The COVID-19 pandemic has further exposed and exacerbated these gaps. Globally, the pandemic contributed to a surge in depressive and anxiety symptoms among university students (Zhang et al., 2022; Lai et al., 2020). For African students, the consequences have been more acute due to limited remote service delivery mechanisms, lack of mental health literacy, and disrupted educational systems. Post-pandemic data now show that healthcare students and female students, in particular, report higher CMD symptom prevalence, especially in low-resource settings (Paiva et al., 2025; Mulyadi et al., 2021).

Despite these alarming trends, the evidence base on mental health support systems in African higher education remains limited, fragmented, and poorly synthesized. Previous literature has focused either on prevalence studies or single-intervention evaluations, with little integration of findings across regions or institutional models. As a result, critical questions remain unanswered: What types of mental health support systems currently exist in African universities? How effective are these services in mitigating CMD symptoms? What structural or cultural barriers hinder their success? And how do these interventions compare to global standards?

This systematic review aims to address these knowledge gaps. We synthesize two decades (2005–2025) of empirical evidence to assess the nature, effectiveness, and challenges of university-based mental health interventions across the African continent. By triangulating regional findings with global prevalence benchmarks and intervention models, this review seeks to provide both a diagnostic and prescriptive lens. Ultimately, it proposes a context-specific model, the African University Mental Health Systems Model (AUMH-SM), to guide policy reform and institutional innovation.

## 2. Methods

### *2.1. Protocol Registration and Reporting Standards*

This review followed the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure methodological transparency and reproducibility (Page et al., 2021). Although the protocol was not pre-registered in PROSPERO, all review processes, including eligibility screening, data extraction, and quality appraisal, were pre-specified and documented. The review was conducted between April 2024 and May 2025.

### *2.2. Review Objectives*

This systematic review aimed to:

i. Identify the range of university-based mental health support services implemented across African higher education institutions.
ii. Evaluate the effectiveness of these services in reducing symptoms of Common Mental Disorders (CMDs) such as depression, anxiety, and stress.
iii. Examine the contextual barriers and enablers that influence the successful implementation, accessibility, and sustainability of these interventions.

iv. Triangulate findings with global CMD prevalence benchmarks and intervention outcomes as reported in international umbrella reviews.

### *2.3. Research Questions*

i. What types of mental health support interventions are currently used in African universities?
ii. To what extent are these interventions effective in improving mental health outcomes among university students?
iii. What institutional, cultural, and systemic factors shape the delivery, uptake, and success of these services?

**Table 1: Eligibility Criteria**

| Criterion | Inclusion | Exclusion |
|---|---|---|
| Population | University students enrolled in African higher education | Secondary school students or the general population |
| Intervention | On-campus or university-affiliated mental health support | Non-university-based interventions |
| Outcomes | CMD outcomes: depression, anxiety, stress | Physical or non-psychological outcomes only |
| Study Design | RCTs, cohort, cross-sectional, qualitative, mixed methods | Editorials, opinion pieces without empirical data |
| Geography | Africa (all subregions) | Non-African settings |
| Language | English or an available English translation | Non-English without translation |
| Time Frame | Publications from January 2005 to March 2025 | Studies published before 2005 |

### *2.4. Search Strategy*

A systematic literature search was conducted to assess the effectiveness of university-based mental health support services in Africa, utilizing multiple electronic databases to ensure a comprehensive and diverse range of empirical studies. The databases searched included PubMed, PsycINFO, Scopus, Web of Science, Africa-Wide Information, African Journals Online (AJOL), ProQuest Dissertations & Theses Global, and Google Scholar. This multi-database approach was essential to retrieve both peer-reviewed and grey literature, capturing the interdisciplinary nature of mental health research in higher education, which spans public health, psychology, education, and social sciences (Booth et al., 2016; Tricco et al., 2018).

The search strategy employed a combination of controlled vocabulary (such as Medical Subject Headings [MeSH]) and free-text keywords tailored for each database, focusing on terms related to mental health, higher education, and the African regional context. Key search terms included “mental health,” “depression,” “anxiety,” “university students,” and “support services”, reflecting the most prevalent common mental disorders (CMDs) among student populations globally and in African settings (World Health Organization [WHO], 2022; Oppong Asante & Andoh-Arthur, 2015). Boolean operators such as AND and OR were utilized to refine the searches, and sample search strings combined these terms in multiple configurations to enhance both specificity and sensitivity, consistent with recommended systematic review methodologies (Higgins et al., 2019).

No language restrictions were initially applied during the search phase to maximize exclusivity. However, for feasibility and consistency in data extraction and interpretation, only studies published in English or those available in English translation were included in the final review. The search was designed to encompass studies published between January 2005 and March 2025, reflecting two decades of research during which mental health in higher education has gained increased prominence in global and African academic discourse (UNESCO, 2021; Kitzrow, 2003).

This comprehensive search strategy was implemented to minimize publication bias and to capture the widest possible spectrum of evidence relating to the effectiveness of mental health support services for university students in Africa. By including a broad array of both published and grey literature, the study aimed to ensure that diverse

perspectives—encompassing quantitative, qualitative, and mixed-method research were represented. This inclusive approach contributes to a richer understanding of the barriers, facilitators, and outcomes associated with mental health interventions within African higher education systems, where under-researched issues such as mental health stigma, resource scarcity, and socio-cultural factors play pivotal roles in shaping student well-being (Kaiser et al., 2015; Dachew et al., 2015).

### *2.5. Study Selection and Screening*

In conducting a systematic review, methodological rigor and transparency were prioritized during the study selection process. Titles and abstracts from a systematic search were screened independently by two reviewers using Rayyan, a web-based tool designed for efficient study selection (Ouzzani et al., 2016). This collaborative platform enabled the reviewers to manage large volumes of results, apply inclusion and exclusion criteria, and resolve conflicts through blinded decision-making, thereby minimizing selection bias and enhancing reliability (Higgins et al., 2019).

The initial screening assessed titles and abstracts against predefined eligibility criteria focusing on university students in Africa, mental health support services, and relevant study designs (quantitative, qualitative, or mixed-method) with outcomes related to mental health impacts such as depression and anxiety. Studies deemed potentially relevant were moved to the full-text review phase for a detailed eligibility assessment. During the full-text screening, each article was thoroughly examined to ensure compliance with the inclusion and exclusion criteria, retaining only those that met the review's methodological and contextual requirements. Disagreements between reviewers were resolved through discussion or consultation with a third reviewer, adhering to established guidelines (Moher et al., 2009).

The selection process was documented using the PRISMA 2020 flow diagram (Figure 1), which visually represents the number of records identified, screened, excluded, and included in the review (Page et al., 2021). This diagram enhances transparency and allows readers to trace the decision-making process, thereby strengthening the credibility and reproducibility of the systematic review. By employing rigorous and technology-supported screening methods, the review aimed to uphold high standards of evidence synthesis and minimize bias that could affect the validity of its findings.

### *2.6. Data Extraction*

A standardized data extraction form was developed to ensure consistency, accuracy, and methodological rigor in the collection of study data during a systematic review. This approach adheres to internationally recognized best practices, which advocate for structured and replicable data extraction methods to reduce reviewer bias and enhance the reliability of findings (Higgins et al., 2019; Aromataris & Munn, 2020). The extraction form was pilot-tested on a sample of eligible studies to refine its structure and ensure clarity before full-scale application.

The data extraction form encompassed several key domains, including study characteristics, population details, types of interventions, mental health outcomes measured, and key findings and limitations. The study characteristics section captured essential bibliographic and methodological details, such as authorship, publication year, country, and study design. This information facilitated the mapping of research distribution across various geographic and methodological contexts, thereby enhancing the understanding of mental health intervention research in African universities (Moher et al., 2009).

Population details included sample size, demographic characteristics, academic levels, and psycho-social factors, allowing for the identification of population-specific patterns and generalizability of findings (Ibrahim et al., 2013). The types of interventions documented ranged from counseling services to digital mental health platforms, crucial for analyzing the effectiveness of diverse approaches (Petersen et al., 2016). The mental health outcomes measured focused on various psychological metrics, with specific psychometric instruments recorded to facilitate comparability across studies (Lovibond & Lovibond, 1995). Finally, the extraction form captured key

findings and limitations, supporting evidence synthesis and assessment of study quality (Popay et al., 2006). Overall, the standardized data extraction form enhanced methodological transparency and enabled robust narrative synthesis and quantitative aggregation of findings (Aromataris & Munn, 2020).

### *2.7. Quality Appraisal*

To ensure methodological rigor and enhance the credibility of synthesized findings, a systematic approach to the critical appraisal of included studies was employed, recognizing the diversity of study designs such as qualitative research, observational studies, and randomized controlled trials (RCTs). A tailored set of appraisal tools was utilized, selected for their methodological appropriateness and alignment with best practices in evidence synthesis (Aromataris & Munn, 2020; Higgins et al., 2019).

For qualitative studies, the Critical Appraisal Skills Programme (CASP) Qualitative Checklist was used to assess methodological quality. This tool provides a structured framework for evaluating various aspects of qualitative research, including clarity of research aims, appropriateness of methodology, rigor of data collection and analysis, and ethical considerations (CASP, 2018). The CASP tool facilitated a nuanced assessment of the trustworthiness and transferability of qualitative insights, which are crucial for understanding context-specific factors affecting mental health service delivery in African university settings.

In the case of observational studies, the Joanna Briggs Institute (JBI) Critical Appraisal Checklists were applied. These tools are designed to evaluate the internal validity and methodological soundness of non-randomized studies by examining factors such as sample representativeness and measurement reliability (Moola et al., 2020). This systematic evaluation allowed for a better understanding of the prevalence of common mental disorders (CMDs) and the impact of mental health support interventions within university populations.

For RCTs, the Cochrane Risk of Bias (RoB 2.0) Tool was employed to evaluate potential sources of bias across five domains, ensuring that threats to the validity of trial findings were systematically identified (Sterne et al., 2019). This comprehensive approach enabled differentiation between studies of varying methodological quality, contributing to the overall assessment of confidence in the evidence. Discrepancies in quality assessments were resolved through discussion or by consulting a third independent reviewer, in line with Cochrane Collaboration principles (Moher et al., 2009). The results of the critical appraisal were integrated into the narrative synthesis, highlighting how study quality influenced reported outcomes.

### *2.8. Data Synthesis*

The review adopted a narrative synthesis approach to integrate and interpret findings from studies on university-based mental health interventions in Africa, given the significant heterogeneity in research designs, intervention types, mental health outcomes, and contextual settings. Narrative synthesis is recognized as a rigorous method for systematically reviewing diverse evidence where meta-analysis may not be applicable due to variability in study characteristics (Popay et al., 2006). The heterogeneity observed included variations in study designs (e.g., randomized controlled trials, cross-sectional surveys), intervention modalities (e.g., face-to-face counseling, digital platforms), outcome measures (e.g., depression, anxiety), and geographic contexts, reflecting the socio-cultural and economic diversity across African countries.

This variability made it challenging to apply statistical meta-analysis, as pooling data could lead to misleading results (Higgins et al., 2019). Instead, narrative synthesis provided a systematic and theory-driven examination of patterns and relationships within the evidence. In instances where studies showed sufficient homogeneity in intervention types and outcome measures, selective meta-analysis was considered, adhering to Cochrane guidelines for assessing statistical heterogeneity (Higgins et al., 2019).

The narrative synthesis process followed the guidance of Popay et al. (2006), which involved developing a preliminary synthesis through tabulation and textual descriptions, exploring relationships within and between

studies, and assessing the robustness of the synthesis by reflecting on methodological strengths and limitations. This structured approach allowed for the meaningful integration of both quantitative and qualitative evidence, capturing the complex nature of mental health interventions in university settings. Ultimately, the review provided a comprehensive understanding of the effectiveness of these interventions and highlighted gaps for future research (Aromataris & Munn, 2020; Thomas & Harden, 2008).

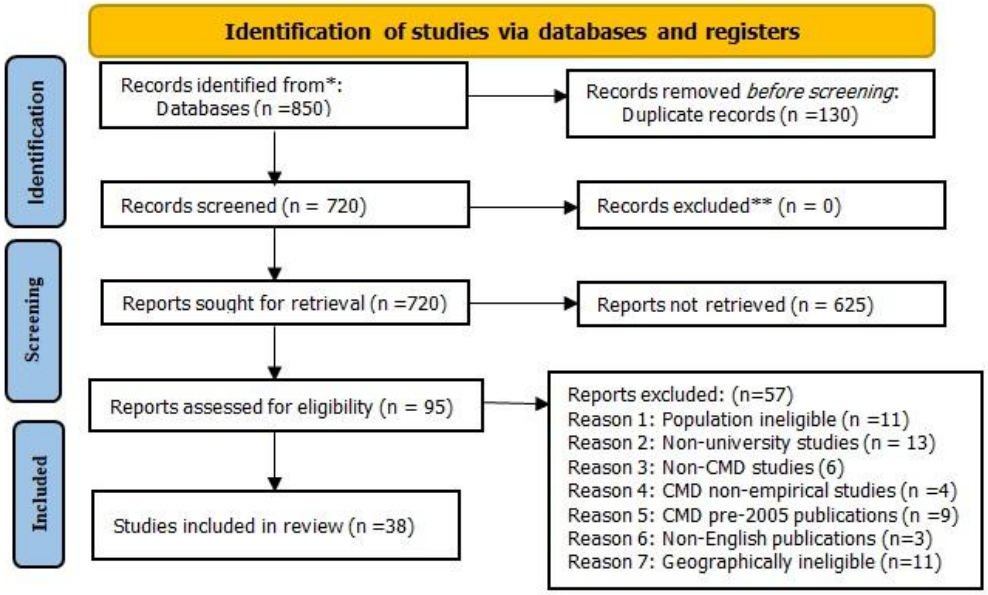


**Fig 1. PRISMA Flowchart**

## 3. Results and Discussion

### *3.1. Study Characteristics and Research Gaps*

This review synthesized 38 studies across 15 African countries, with a predominance of research emerging from Nigeria and South Africa, while Francophone and Lusophone regions remain largely underrepresented. Methodologically, the studies varied, comprising randomized controlled trials (RCTs), cross-sectional surveys, cohort studies, and qualitative designs, yet few offered longitudinal or cost-effectiveness analyses. Most focused on undergraduate populations aged 18–30, particularly in public universities, though a small number targeted medical and healthcare students.

The imbalance in geographical coverage underscores a fundamental weakness: the knowledge base informing African university mental health systems is skewed toward Anglophone contexts, with entire regions absent from the evidence. This imbalance limits the generalizability of findings and perpetuates inequities in mental health discourse. Globally, systematic reviews (Paiva et al., 2025) highlight diverse socio-cultural moderators of common mental disorders (CMDs) such as gender and disciplinary background, yet African evidence rarely interrogates these factors. The lack of contextual depth thus hampers system-wide policy responses.

### *3.2. Types of University-Based Mental Health Interventions*

Six broad intervention categories were identified (Table 1), namely professional counseling, peer support networks, awareness campaigns, digital platforms, crisis helplines, and academic stress management programs. Counseling services were the most widespread, present in approximately 70% of universities, yet largely reactive and focused on symptom treatment rather than prevention. Peer-led initiatives proved effective in reducing stigma and fostering help-seeking, though they often relied on informal structures within student unions. Awareness campaigns raised mental health literacy but lacked continuity due to inconsistent funding.

The emergence of digital and tele-mental health platforms during COVID-19 marked a significant innovation. However, their uptake was severely constrained by infrastructural deficits and uneven digital literacy, particularly in rural settings. Crisis helplines were rare and, where present, faced challenges of confidentiality and staff preparedness. Stress management programs, while moderately effective in reducing anxiety and burnout, were often treated as peripheral, stand-alone workshops rather than integral components of student wellness.

When benchmarked against global best practices, African universities remain confined to fragmented, under-resourced interventions, falling short of the integrated, multi-tiered systems increasingly common in higher-income settings (Paiva et al., 2025).

**Table 1: Identified Six Primary Categories of University-Based Mental Health Interventions**

| S/n | Interventions | Explanation |
|---|---|---|
| 1. | Professional counseling services (70% of universities) | These included face-to-face sessions led by trained psychologists or counselors. Most interventions focused on reactive treatment for depression and anxiety, using cognitive-behavioral or person-centered therapeutic models. |
| 2. | Peer support and counseling networks | Trained student volunteers facilitated support groups, awareness events, and informal consultations. These were often integrated into student unions or residence life programs, with demonstrated effects in reducing stigma and improving help-seeking behaviors. |
| 3. | Mental health awareness campaigns | Universities implemented educational initiatives such as seminars, mental health weeks, and distribution of informational materials. These campaigns aimed to improve mental health literacy but were often short-term and lacked sustained funding. |
| 4. | Digital and tele-mental health platforms | Especially during the COVID-19 pandemic, mobile-based apps, SMS support lines, and online counseling portals emerged. However, uneven digital access and low e-literacy rates hindered implementation in rural and low-income settings. |
| 5. | Crisis helplines and hotlines | A few institutions provided 24/7 helplines for students experiencing acute psychological distress. Effectiveness depended heavily on staff training and confidentiality protocols. |
| 6. | Academic stress management programs | These included mindfulness training, time management workshops, and study skills courses integrated into orientation programs. Evidence suggests moderate effectiveness in reducing mild anxiety and academic burnout. |

### *3.3. Effectiveness and Outcome Limitations*

Table 2 indicates that, of the 38 studies, only 24 reported standardized outcome measures using tools such as the PHQ-9, GAD-7, DASS-21, and Beck Depression Inventory. Counseling interventions demonstrated symptom reduction in depression (22–45%) and anxiety (18–35%) within 4–12 weeks, with greater impact when embedded in broader student wellness frameworks. Peer-led programs increased awareness and service uptake, particularly among first-year and female students, highlighting the value of community-driven approaches. Digital services showed potential for managing mild to moderate symptoms, though their reach remained curtailed by technological divides.

The most promising results came from multi-modal programs, where professional counseling, peer support, and awareness initiatives were integrated. These holistic models produced the most consistent improvements in CMD outcomes. Yet, a critical limitation across studies was the absence of longitudinal tracking; fewer than 20% included follow-up data, making it difficult to assess sustainability. Moreover, no study employed cost-effectiveness analysis, leaving policymakers without economic justifications for scaling interventions. This methodological gap weakens the evidence base and hinders advocacy for institutional investment.

**Table 2: Effectiveness of Interventions**

| S/no | Intervention | Effectiveness |
|---|---|---|
| 1. | Counseling interventions (n = 11 studies) | Demonstrated significant symptom reduction in depression (22–45%) and anxiety (18–35%) over 4–12 weeks. Effectiveness was enhanced when counseling was embedded in broader student wellness programs. |
| 2. | Peer-led interventions (n = 8) | Reported increased mental health awareness and service utilization (15–30% improvement), particularly among first-year and female students. |
| 3. | Digital services (n = 6) | Showed effectiveness in managing mild to moderate symptoms, though impact was limited in areas with low internet penetration or high stigma. |
| 4. | Multi-modal programs (n = 5) | Institutions that combined professional counseling, peer support, and awareness campaigns reported the highest improvements in CMD outcomes, especially when services were normalized in campus life. |

### *3.4. Barriers to Implementation and Uptake*

Five recurrent barriers emerged as indicated in Table 3, including structural constraints, workforce shortages, stigma, policy fragmentation, and digital divides. Structural challenges were most pervasive, with inadequate funding, low staff-to-student ratios, and the absence of dedicated mental health departments cited in over 70% of studies. Human resource shortages further compounded these deficits, with some institutions relying on untrained academic staff to deliver counseling.

Cultural stigma and religious misconceptions presented perhaps the most entrenched barrier. Many students associated mental illness with weakness or spiritual affliction, reducing help-seeking behavior, particularly among male populations. This aligns with earlier findings by Kaiser et al. (2015) and Clement et al. (2015), which emphasize stigma as a determinant of care inequity. Yet, unlike global best practices where anti-stigma programming is routinely embedded, African universities rarely treat stigma reduction as a central strategic objective.

Policy fragmentation further undermined service delivery. Few institutions had mental health policies, leaving services ad hoc, reactive, and disconnected from broader university governance. Finally, while digital innovations were heralded as solutions, the reality of poor infrastructure, limited digital literacy, and confidentiality concerns rendered them unevenly effective.

**Table 3: Barriers to Effectiveness**

| S. No | Barriers to Effectiveness | Explanation |
|---|---|---|
| 1. | Structural constraints | Inadequate funding, absence of dedicated mental health departments, and low staff-to-student ratios were cited in over 70% of studies.. |
| 2. | Human resource shortages | Many institutions lacked qualified counselors or relied on overstretched academic staff without mental health training. |
| 3. | Stigma and cultural beliefs | Fear of social judgment, religious misconceptions, and associating mental illness with personal weakness severely limited help-seeking behavior, particularly among male students. |
| 4. | Policy fragmentation | Only a minority of universities had formal mental health policies or strategic frameworks. Services were often reactive and disconnected from broader health or academic policies. |
| 5. | Digital divide | Although tele-mental health was seen as promising, poor infrastructure, low digital literacy, and privacy concerns limited its reach. |

### *3.5. Comparative Synthesis with Global Trends*

Triangulating African findings with global CMD prevalence data (Paiva et al., 2025) exposes a stark treatment gap, as indicated in Table 4. While depression, anxiety, stress, and sleep disorders among African students mirror global prevalence rates, service utilization remains disproportionately low. For example, although the global prevalence of mild depression is estimated at 35.41%, African university counseling uptake does not exceed 10%. Suicide ideation, affecting over 10% globally, remains inadequately addressed in Africa due to underdeveloped crisis response systems.

This discrepancy reflects systemic inequalities: African students face comparable mental health risks but have access to far fewer institutional supports. The absence of integrated multi-tiered systems common in higher-income contexts perpetuates the mismatch between need and response. Without structural reforms, African universities risk reinforcing cycles of untreated CMDs, academic underperformance, and dropout.

**Table 4: Local and global CMD prevalence triangulation**

| CMD Type | Global Prevalence (Paiva et al., 2025) | African Intervention Uptake (this review) |
|---|---|---|
| Depression | 35.41% (mild), 13.42% (severe) | ≤ 10% utilization of campus counseling |
| Anxiety | 40.21% (mild), 16.78% (severe) | Mostly untreated or self-managed |
| Stress | 36.34% | Rarely addressed beyond academic support |
| Suicide Ideation | 10.76% (12-month) | Crisis helplines underdeveloped |
| Sleep Disorders | 41.09% | Largely unaddressed |

### *3.6. Towards an African University Mental Health Systems Model (AUMH-SM)*

The synthesis underscores the necessity of a systemic, context-sensitive response. The proposed African University Mental Health Systems Model (AUMH-SM), as indicated in Table 5 consolidates evidence into six pillars: accessibility, cultural competence, integration, evidence-based practice, stigma reduction, and digital augmentation. Unlike fragmented approaches, the AUMH-SM emphasizes embedding mental health into academic and institutional life; ensuring services are not peripheral but integral to student well-being.

Adopting this model would require national policy mandates, workforce development strategies, and sustainable financing. It also calls for cultural sensitivity, aligning interventions with local belief systems while confronting stigma and leveraging digital tools in ways that complement, rather than substitute, physical infrastructure.

**Table 5: African University Mental Health Systems Model (AUMH-SM)**

| S. No | Pillar | Description |
|---|---|---|
| 1. | Accessibility | Ensure universal access to care, regardless of geography or economic status. |
| 2. | Cultural competence | Align interventions with students' cultural, religious, and linguistic norms. |
| 3. | Integration | Embed services into academic life, curriculum, and university governance. |
| 4. | Evidence-based practice | Use validated tools, RCTs, and feedback loops to assess and improve programs. |
| 5. | Stigma reduction | Prioritize anti-stigma campaigns, peer leadership, and open dialogue. |
| 6. | Digital augmentation | Leverage mobile platforms and tele-mental health in low-resource settings. |

### *3.7. Policy and Research Implications*

The findings reveal urgent policy imperatives. First, African governments should mandate comprehensive mental health frameworks within universities, backed by dedicated funding streams. Second, workforce development programs—through postgraduate training, task-shifting, and partnerships with NGOs—must address human resource shortages. Third, systematic stigma reduction campaigns are essential for shifting cultural

narratives. Finally, evaluation frameworks must be strengthened, incorporating longitudinal tracking and cost-effectiveness metrics to build a stronger case for sustained investment.

For research, there is a pressing need to expand beyond Anglophone regions, explore gender and discipline-specific moderating factors, and integrate student voices in intervention design. Future studies must also adopt rigorous methodologies to evaluate not only short-term outcomes but also long-term effectiveness and scalability.

### *3.8. Limitations and Directions for Future Research*

Although this review provides one of the most comprehensive syntheses of mental health interventions in African universities to date, several limitations warrant careful reflection. The first limitation concerns the heterogeneity of study designs, which constrained the feasibility of conducting a meta-analysis. The reviewed studies employed diverse methodologies—ranging from randomized controlled trials to cross-sectional surveys and qualitative approaches—yet lacked sufficient comparability in outcomes, measurement tools, and follow-up durations. As a result, while short-term effectiveness could be assessed, the evidence base for sustained impact remains weak.

Second, the review relied heavily on English-language publications, a methodological bias that may have excluded important contributions from Francophone and Lusophone Africa. This linguistic limitation reflects a broader epistemic imbalance in global research, where English often dominates scholarly output. Consequently, the voices and experiences of large student populations in West, Central, and Southern Africa remain underrepresented.

Third, the scarcity of longitudinal studies restricted insights into the durability of interventions. While several programs demonstrated immediate reductions in depression, anxiety, or stress, few studies followed students beyond the intervention period. This leaves unanswered questions about sustainability, relapse, and long-term institutional effectiveness.

Looking forward, future research must prioritize intervention fidelity (ensuring that programs are delivered as designed), cost-effectiveness analyses (to guide policymakers in resource-constrained contexts), and student-centered co-design (ensuring interventions resonate with cultural, social, and institutional realities). Without such evidence, advocacy for integrated systems risks being undermined by the perception that interventions are either unsustainable or externally imposed.

## 4. Conclusion and Recommendations

### *4.1. Conclusion*

This review highlights a striking paradox: while the prevalence of common mental disorders (CMDs) among African university students mirrors global levels, institutional responses remain fragmented, underfunded, and reactive. Evidence from 38 studies across 15 countries reveals that interventions such as counseling services, peer-led initiatives, and digital platforms can yield meaningful benefits. Yet, these remain constrained by systemic barriers most notably stigma, resource scarcity, and a critical shortage of trained mental health professionals.

In contrast, global higher education systems increasingly adopt multi-tiered, preventive, and integrated approaches, embedding mental health into governance, curricula, and student life. The African context, however, is characterized by short-term, donor-driven, or crisis-oriented interventions that lack sustainability or policy integration. This disparity represents more than a gap in student well-being; it reflects a structural inequity that has profound implications for academic performance, national development, and youth empowerment.

The African University Mental Health Systems Model (AUMH-SM) proposed in this review offers a framework for closing this gap. Grounded in six pillars—accessibility, cultural competence, integration, evidence-based practice, stigma reduction, and digital augmentation —the model provides a roadmap for transforming isolated

initiatives into comprehensive systems. Such reform is not merely desirable but imperative if African universities are to support the psychological resilience of their students and contribute to broader societal development.

### *4.2. Recommendations*

The findings of this review underscore the urgent need for coordinated and systemic reform to address mental health challenges in African universities. A central priority lies in policy and governance reform. Ministries of education and health must establish comprehensive frameworks that explicitly mandate the integration of mental health within higher education systems. Universities, in turn, should embed mental health in their strategic plans, treating it as integral to academic performance, retention, and institutional excellence rather than as a peripheral or optional service. Such alignment would ensure that mental health is institutionalized as a governance priority and not relegated to crisis response.

Equally critical is the question of sustainable financing. Current reliance on short-term donor funding has left services fragmented, unpredictable, and often unsustainable. Governments and development partners should create dedicated funding streams that guarantee continuity of services. Universities must also allocate recurrent budgets for mental health within their core financial planning, reducing vulnerability to external shocks and ensuring that programs become part of institutional infrastructure rather than temporary initiatives.

Addressing the acute shortage of qualified professionals requires bold investment in workforce development. Task-shifting strategies—training non-specialist staff and student peer leaders—can expand service delivery and increase accessibility in the short term. However, long-term solutions demand scaling up postgraduate training programs in counseling, clinical psychology, and psychiatry to strengthen the professional pipeline. Without deliberate human resource investment, universities will remain unable to meet rising mental health demands.

Another essential area is stigma reduction and cultural alignment. Institutional campaigns should actively normalize help-seeking and mental health care, making use of peer networks, student associations, and culturally resonant messaging to counter pervasive misconceptions. At the same time, interventions must remain sensitive to religious and cultural contexts while challenging harmful beliefs that perpetuate silence, discrimination, and underutilization of services. This dual approach—cultural respect coupled with critical engagement—will be vital to shifting entrenched attitudes.

Furthermore, digital and technological innovation offers significant potential for expanding reach, particularly in low-resource settings. Tele-mental health initiatives, including online counseling and mobile platforms, should be strengthened to ensure inclusivity, confidentiality, and accessibility. Partnerships with telecommunications providers could play a transformative role by subsidizing digital access for students in rural or economically disadvantaged areas, thereby bridging structural inequities in service provision.

Finally, progress will require robust systems of monitoring, evaluation, and research. Universities must adopt clear indicators such as service reach, equity of access, and student satisfaction to guide decision-making and ensure accountability. Future studies should prioritize longitudinal designs to assess long-term impact, cost-effectiveness analyses to inform resource allocation, and co-design approaches that incorporate student perspectives into program development. Building this evidence base is indispensable for informing policy, improving practice, and ensuring interventions are both effective and sustainable.

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