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Current state of mental health research in Mozambique: a scoping review protocol

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ABSTRACT

Introduction Mental health is a fundamental component of overall well-being, underpinning our ability to make both individual and collective decisions. In Mozambique, estimates suggest that a significant number of Mozambicans suffer from common mental disorders such as depression and anxiety, yet the majority go undiagnosed and untreated. In recognition of this burden, the Mozambican Ministry of Health had approved the country's first *Mental Health Strategy and Action Plan* in 2007, alongside the *National Health Policy Mental Health Guidelines* (2006–2015). However, the implementation of this plan and strategy has been challenged by a severely limited mental health workforce and fragile infrastructure. Despite these challenges, recent years have seen some progress, including multisite studies and international collaborations aiming to understand the burden of disease and improve services. Yet, the mental health literature in Mozambique remains fragmented, with significant gaps regarding specific population groups, barriers to care and the effectiveness of interventions. This fragmentation highlights the need for a comprehensive scoping review to map the current state of mental health research in the country and to guide future studies, policy development and clinical practice.

Methods and analysis This scoping review aims to map the existing scientific literature on mental health in Mozambique over the past 15 years, focusing on study types, target populations, methodological approaches and key findings. Employing a two-stage screening process and both quantitative and a thematic synthesis approach, the review will analyse studies meeting predefined eligibility criteria. A rigorous search strategy will be implemented across identified electronic databases and grey literature sources, including published studies from 2009 to the present. Data will be charted using a standardised form, and information regarding study characteristics, scope of the research, population involved, geographic distribution and reported outcomes/findings will be collected. This scoping review will follow a standard protocol adhering to the methodological framework outlined by Arksey and O'Malley (2005).

Ethics and dissemination Ethical considerations involve respecting original authors, maintaining integrity and transparency, managing data ethically and disclosing conflicts of interest. Dissemination will occur through publication in peer-reviewed journals, conference presentations, open-access repositories, policy briefs, stakeholder engagement activities and social media platforms.

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STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Comprehensive search strategy.
⇒ Inclusion of peer-reviewed and grey literature.
⇒ Adherence to established methodological guidelines.
⇒ Reliance on explicitly reported information in the studies.

INTRODUCTION

Mental health is a fundamental component of overall well-being, underpinning our ability to make both individual and collective decisions.[1] It encompasses emotional, psychological and social well-being, affecting how people think, feel and act.[1]

Globally, the burden of mental health continues to grow, particularly in low- and middle-income countries, where limited resources and cultural barriers hinder effective mental health service delivery.[2–4] In such contexts, mental health is often neglected, despite its profound impact on social and economic development.

In Mozambique, the mental health system is significantly under-resourced.[4] Estimates suggest that a significant number of Mozambicans suffer from common mental disorders such as depression and anxiety, yet the majority go undiagnosed and untreated.[5 6] There is a critical shortage of trained professionals, limited access to psychotropic medications and inadequate infrastructure for mental health services.[4 7 8] In recognition of this burden, the Mozambican Ministry of Health had approved the country's first *Mental Health Strategy and Action Plan* in 2007, alongside the *National Health Policy Mental Health Guidelines* (2006–2015).[4] These documents outlined priorities such as integrating mental

health into primary care, expanding human resource capacity, protecting human rights, improving quality of care and enhancing community involvement.[4] However, implementation has been challenged by a severely limited mental health workforce and fragile infrastructure.[4] The psychiatrist-to-population ratio remains among the lowest globally, with only a handful of trained professionals serving a population of over 20 million.[4] To address this gap, Mozambique has implemented task-shifting strategies, whereby basic mental healthcare tasks are delegated to non-specialist health workers.[4 8 9] This model has shown promise in expanding access to mental health services, particularly within primary care settings and in resource-constrained environments.[10] Nevertheless, these gaps are exacerbated by widespread stigma, a lack of awareness, and cultural beliefs that attribute mental illness to supernatural causes rather than biological or psychological factors.[11] Most individuals with mental health disorders do not receive adequate care. Instead, many resort to traditional healers, which reflects both cultural practices and the inadequacy of conventional services.[11] Despite these challenges, recent years have seen some progress, including multisite studies and international collaborations aiming to understand the burden of disease and improve services.[7]

Recent studies have explored the role of community-based interventions, including psychodrama, in promoting mental health among adolescents and young adults,[12] as well as the mental health consequences of the COVID-19 pandemic among healthcare workers and students.[13 14] High levels of psychological distress have been documented among adolescents living with HIV[15 16] and among girls in child marriages.[17]

Despite a growing body of research, the mental health literature in Mozambique remains fragmented, with significant gaps regarding specific population groups, barriers to care and the effectiveness of interventions.[11] This fragmentation highlights the need for a comprehensive scoping review to map the current state of mental health research in the country and to guide future studies, policy development and clinical practice.

This protocol outlines a scoping review that aims to map the existing scientific literature on mental health in Mozambique over the past 15 years, focusing on study types, target populations, methodological approaches and key findings. The results are expected to contribute to a deeper understanding of the research landscape and support the strengthening of mental health systems and services across the country.

THE RATIONALE FOR THE SCOPING REVIEW

Although scattered studies on mental health have been conducted in Mozambique, there is no comprehensive synthesis of research output over the last 15 years. Prior systematic review[11] identified the scarcity and limited quality of available research but did not fully explore

trends, themes, populations studied or methodological approaches.

Since then, Mozambique has made notable commitments to strengthening mental healthcare, including the 2016–2025 Mental Health Strategy and Action Plan, which emphasised service integration, human resources and research development. These efforts align with broader global objectives such as the Sustainable Development Goals (notably SDG 3: Good Health and Well-Being) and Mozambique's national health and development priorities, which increasingly recognise mental health as integral to public health.

Furthermore, the country's evolving sociopolitical and economic landscape, including recurrent political tensions and the consequences of natural disasters, has further underscored the need for resilient health systems that include mental health support. In this context, it is timely and necessary to map and assess the existing body of evidence to inform responsive and context-appropriate interventions.

A scoping review is particularly suitable for this purpose, allowing the systematic identification, categorisation and analysis of diverse types of literature.[18] The findings from this review will offer a comprehensive overview of the current state of mental health research in Mozambique, guiding future research efforts and informing strategies to improve mental health outcomes in the country.

METHODS AND ANALYSIS

Patient and public involvement

None.

Protocol and registration

This protocol is registered on Open Science Framework (OSF), with the Digital Object Identifier 10.17605/OSF.IO/8R2P7.

Study period

The scoping review is scheduled to begin in May 2025, once the protocol is expected to be approved for publication in a peer-reviewed journal, and is expected to be completed by August 2025. These dates encompass the entire review process, including literature search, screening, data extraction, analysis and dissemination. The most recent search for eligible studies will be conducted on 21 June 2025.

Eligibility criteria

Inclusion criteria

- ► *Study design:* no restrictions.
- ► *Population:* the study must have included Mozambican individuals.
- ► *Context:* the study must have been conducted in Mozambique.
- ► *Intervention/focus:* the study must explicitly address mental health-related matters.

- ► *Publication status:* we will include both peer-reviewed and grey literature sources (dissertations and theses).
- ► *Language:* we will include only studies published in English and/or Portuguese. These are the two most widely used languages in Mozambican academic, governmental and healthcare contexts. Portuguese is the official language of Mozambique and the primary language used in national policy documents, public health strategies and local academic publications. English, on the other hand, is the dominant language in global scientific publishing and regional collaboration, particularly in Sub-Saharan Africa. Limiting the research to these two languages ensures relevance to both local and international research standards while maintaining feasibility in terms of screening and data extraction. However, we acknowledge the potential for language bias and will explore mitigation strategies during the data analysis phase.
- ► *Time frame:* we will include studies from 2009 to 2025. We chose 2009 as the starting point for this scoping review to align with key developments in Mozambique's mental health policy. In 2007, the Mozambican Ministry of Health approved the first Mental Health Strategy and Action Plan, as well as the National Health Policy Mental Health Guidelines (2006–2015). This marked a significant shift in priorities, recognising the need for expanded human resources, integrated mental healthcare in primary services, community involvement and investment in research and service delivery.[4] By 2009, initial implementation efforts were underway, making it a relevant starting point for examining research on the country's evolving mental health landscape. This period also saw increased political will to evaluate and scale up evidence-based interventions, along with growing national and international interest in strengthening mental health systems in low-income settings.

Information sources
Electronic databases
We will search the following electronic databases: PubMed, PsycINFO, CINAHL, Scopus, Web of Science and ScienceDirect—all of which are recognised for indexing high-quality scientific literature in medicine, psychology, nursing and public health. These databases will allow us to access peer-reviewed research relevant to mental health and offer robust search functionalities that support precise and replicable strategies.

In addition, we will include SocINDEX, an authoritative source in the field of sociology, which is particularly valuable for studies exploring the social dimensions of mental health. This inclusion ensures that we capture literature beyond clinical and biomedical perspectives.

We will also use Google Scholar, limiting our search to the 'allintitle' function to improve the specificity of our results and reduce the retrieval of non-relevant documents, given the platform's tendency to yield large volumes of loosely related material.

To ensure representation of locally produced research and grey literature, we will include hand searches of the Revista Moçambicana de Ciências de Saúde, a national scientific journal with regular publications in the health sciences. We will also review grey literature from Mozambican university repositories, which may contain theses, dissertations and institutional research reports not indexed in international databases.

Search strategies
The search strategy will be tailored to each specific database and will incorporate the following concepts (see table 1).

Selection of sources of evidence
To ensure a systematic and unbiased approach to selecting relevant studies for this scoping review, we will implement a two-stage screening process.

Stage 1: title and abstract screening
All retrieved citations from electronic database searches and other sources, including grey literature and reference list hand-searching, will be uploaded into a reference management software (Mendeley). Duplicates will be removed during this process. Following this, two independent reviewers will screen the titles and abstracts of all

Table 1 Search terms using the PICO strategy

PICO element	Search terms (English)	Search terms (Portuguese)
Population (P)	Mozambique OR Mozambican	Moçambique OR Moçambicano OR Moçambicana
Intervention/Issue (I)	"Mental health" OR "Psychological well-being" OR "Psychiatric disorders" OR "Mental illness" OR "Mental healthcare"	"Saúde mental" OR "Bem-estar psicológico" OR "Transtornos mentais" OR "Doença mental" OR "Cuidados de saúde mental"
Comparison (C)	Not applicable	
Outcomes (O)	Depression OR Anxiety OR Stress OR PTSD OR "Substance use" OR "Suicidal ideation" OR "Help-seeking behavior" OR "Access to care" OR "Treatment outcomes"	Depressão OR Ansiedade OR Estresse OR TEPT OR "Abuso de substâncias" OR "Ideação suicida" OR "Busca de serviços" OR "Acesso aos serviços" OR "Resultados do tratamento"

See full search strategies on "online supplemental file 1".

retrieved citations according to the predefined eligibility criteria. Any discrepancies between the reviewers will be resolved through discussion or by consulting a third reviewer to achieve consensus.

Stage 2: full-text screening

The full text of all studies deemed potentially relevant after the title and abstract screening will be retrieved. Two independent reviewers will assess the full text of each article against the eligibility criteria. Any disagreements arising during the full-text screening will be resolved through discussion or by involving a third reviewer for a final judgement.

We will maintain detailed records of the selection process, including the number of studies retrieved from each source, the number of studies excluded at each stage and the reasons for exclusion. This will ensure transparency and allow for auditability of the review process.

Data charting process

This scoping review adheres to the methodological framework outlined by Arksey and O'Malley, (2005) as described below.

Stage 1: identifying the research question

The review question was developed through an iterative process that involved initial scoping of the literature to identify existing studies on mental health in Mozambique and to assess the breadth and nature of available evidence. This preliminary search revealed scattered research with limited synthesis, prompting the need for comprehensive mapping. The research team held internal discussions to refine the focus, aiming to capture key trends, populations studied, themes addressed and methodological approaches used. Therefore, we developed the following research question: '*What is the current status of mental health research in Mozambique?*'

Stage 2: identifying relevant studies

We will use a comprehensive search strategy using electronic databases and will search for grey literature through relevant organisation websites and reference list hand-searching. We defined clear inclusion criteria to ensure the retrieved studies align with the research question.

Stage 3: study selection

A two-stage screening process will be implemented, as described on the 'Selection of Sources of Evidence' chapter above.

Stage 4: charting the data

A standardised data charting form will be developed to capture key information from the included studies.

Stage 5: collating, summarising and reporting the results

We will quantitatively synthesise the findings, providing an overview of the landscape of mental health research in Mozambique. Additionally, we will narratively synthesise the findings, giving an overview of the state of mental health research in Mozambique. The scoping review findings will be reported following the PRISMA Extensions for Scoping Reviews guidelines to ensure transparency and completeness.

Stage 6: consultation

While not a formal stage in Arksey and O'Malley's framework, we have decided not to engage with stakeholders in this phase of the review. Instead, we will rely on the existing literature and frameworks to guide our analysis and conclusions.

Data items

We will extract data from the included studies using a standardised data charting form according to the key data items outlined below.

► Author(s)
► Study title
► Date published
► Scope (eg, systematic review, scoping review, observational study, implementation research, etc)
► Study design (eg, quantitative, qualitative, mixed methods)
► Sampling method (eg, probabilistic, non-probabilistic, if applicable)
► Population studied
► Geographic distribution (eg, region, province or city, if applicable)
► Gaps identified
► Main findings
► Recommendations

Synthesis of results

After data extraction, a comprehensive synthesis will be employed to analyse and summarise the findings through both quantitative and qualitative approaches. This process will include the following steps.

The data will be thoroughly reviewed for consistency and accuracy. Any discrepancies or missing information will be identified and corrected, where feasible, to ensure reliable results.

The data will be categorised based on geographic locations within Mozambique, allowing us to identify regional trends and disparities in mental health research.

Quantitative analysis

The frequency of different research methods, study designs and mental health outcomes measured will be analysed quantitatively to identify common patterns and gaps in the research. Graphs and charts will be created to visually represent the distribution of studies over time, the types of mental health issues studied and the geographic spread of research activities.

Qualitative analysis

Once coded, the data will also be analysed thematically to identify key patterns and trends in the research. Themes will explore various aspects of mental health research, including common methodologies, populations studied

and specific mental health issues examined. Codes and subcodes will be grouped into broader themes, reflecting variations in study designs, challenges and reported outcomes.

For example, themes may explore how different types of mental health issues have been studied over time or how research designs and methodologies have evolved. Using these identified themes, we will develop a narrative synthesis that provides a comprehensive overview of the state of mental health research in Mozambique.

This synthesis will integrate the findings from the studies, highlighting the diversity of approaches, reported benefits and challenges in mental health research. The narrative will also offer insights into how various research designs and engagement strategies have influenced the success and sustainability of mental health interventions in Mozambique.

Identification of trends

Over the period, trends in mental health research will be identified, including shifts in focus on particular mental health issues or populations. We will also track changes in research methodologies and the evolution of study designs to understand the progression of mental health research in the country.

Visual representation

The findings will be presented visually through tables or charts to summarise key themes and patterns. For instance, we will use tables to display the distribution of studies across different mental health issues, research methods and geographic locations. Visual representations may also highlight any associations between study characteristics and specific outcomes, such as intervention success or research impact.

Additionally, we will incorporate direct quotes from the included studies to illustrate key points and provide a richer understanding of the research landscape. These quotes will add context to the identified themes and offer insights into how researchers have engaged with their study populations.

LIMITATIONS

The scoping review has some limitations that should be considered when interpreting the findings. First, the search strategy may not capture all relevant studies due to limitations in database coverage and the use of specific keywords and Medical Subject Headings (MeSH) terms. To address this, we will include multiple databases and apply a comprehensive and iterative search strategy. Second, our reliance on the information explicitly reported in the included studies may limit the depth of the evaluation. To minimise this, we will extract and analyse all available data systematically and transparently, while noting areas where information is lacking. Lastly, as this is a scoping review, we will not assess the methodological quality of the included studies. Instead, we will focus

on mapping the evidence and identifying gaps, which can guide future reviews that include quality appraisal.

ETHICS AND DISSEMINATION

This scoping review will involve the collection and analysis of data from previously published studies. As such, it does not require direct interaction with human participants or access to personal, confidential data. Consequently, ethical approval is not necessary for the conduct of this review. However, we will adhere to the highest standards of ethical research practices by ensuring respect for original authors by acknowledging and citing all sources and original authors whose work is included in the review, integrity and transparency by reporting our methods and findings to allow reproducibility and verification by other researchers, using reference management software to organise and handle the data systematically to ensure data integrity and confidentiality, and by disclosing any potential conflicts of interest among the review members maintaining objectivity and impartiality in the review process.

The findings of this scoping review will be disseminated through multiple channels to reach a broad audience, including researchers, practitioners, policy makers and other stakeholders involved in Mental Health Research. We will submit the final review manuscript to a high-impact, peer-reviewed journal in the field of public health or global health. Findings will be presented at national conferences related to public health and mental health to engage with the broader scientific community. The research protocol and final report will be made available on the OSF to promote transparency and accessibility. A DOI will be obtained and published to ensure permanent and citable access to the work.

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