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Review

Mind-Body Medicine and Mental Health Among Unemployed Youth in Nigeria: A Review of Integrative Therapy Potentials

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Abstract

There is a strong relationship between youth unemployment in Nigeria and psychosocial distress, anxiety, depression, and diminished resilience. Few opportunities for formal mental health services highlight the need for culturally sensitive, accessible, and cost-effective interventions. This systematic review aims to compile evidence on the benefits of mind-body medicine (MBM) interventions (such as meditation, mindfulness, yoga, breathing exercises, guided imagery, and relaxation techniques) on mental health outcomes in unemployed youth, particularly in Nigeria and other similar African contexts. The review was conducted in line with the principles of the PRISMA 2020 guidelines as a means of ensuring the transparency of study identification, screening, and inclusion in the review. An extensive literature search was carried out in PubMed, Scopus, Web of Science, PsycINFO, Google Scholar, African Journals Online, and WHO Institutional Repository for Information Sharing with publications from 2000 to 2025. The studies included were peer-reviewed articles that focused on mental health outcomes measured following MBM interventions in youth populations (ages 15-35). Manual screening of reference lists of studies included was used to identify other relevant studies. Results suggest the implementation of MBM interventions is implementable, scalable, and culturally relevant, with the ability to decrease stress, improve emotional regulation, increase resilience, and foster adaptive coping. But little evidence exists in Nigeria, and there is a dearth of randomized controlled trials (RCTs), longitudinal studies, or cost-effectiveness studies. The incorporation of MBM in youth mental health programs can help to foster psychosocial well-being and resilience, and hybrid MBM-digital interventions can be a feasible way to increase access in low-resource settings. Rigorous trial design, long-term outcomes, cost-effectiveness, and contextually relevant trial implementation strategies need to be examined in future research in order to maximize benefits for various youth populations.

Keywords

Mind-body medicine, Youth unemployment, Low-resource settings, Resilience, Psychosocial well-being

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1. Introduction

With its long association with emotional distress and the ever-increasing burden of mental illness in young adults, unemployment of youths in Nigeria has become a topic of great interest among the general populace [1]. Although the youth are an important economic and social resource, they are constantly unemployed, a factor that can lead to mental health problems, impacting negatively on the development of their personality, skills, and socioeconomic adaptation [2]. Research shows that joblessness also contributes to the difficulties in cognitive functioning, emotional regulation, behavior, and interpersonal relations. The presence of all of these factors together puts them at a greater risk for depression, generalized anxiety, psychological distress, hopelessness, and reduced self-efficacy [1]. In the international context, low employment has been cited as one of the most significant socio-economic challenges, and a study shows that one out of five unemployed people have a high risk of suffering from mental health problems [3].

The psychosocial impacts of unemployment in Nigeria are particularly severe due to economic deficits, structural inequality, unemployment, and poor access to mental health services [2]. If left unchecked, the psychological vulnerabilities of many of the jobless youth are reported to be worsened by feelings of frustration, worthlessness, chronic stress, and social exclusion. Mental health outcomes are further impacted by poor family functioning, reliance, risky behaviors, and decreased community involvement, all of which are related to unemployment [4].

The biopsychosocial model is a theory that provides a full overview of these interactions. According to this model, mental health outcomes are the result of the interaction of a myriad of biological, psychological, and social factors but are not caused by any one factor [5]. In this context, unemployment is not only an economic issue but also a problem that affects mental health and social functioning, increasing mental distress by the stigma attached to unemployment, loss of identity, and nonproductive social interaction.

Great attention is being paid to the integrative therapy of stress—a therapy that is now coming under the spotlight in the international medical press as mind-body medicine (MBM) [6]. There are different types of practice like meditation, yoga, breathing and relaxation techniques, tai chi, and mindfulness, all of which focus on enhancing the relationship between the mind and the body [7,8]. Unlike traditional interventions, which emphasize pharmaceutical or clinical interventions, MBM emphasizes self-regulation, internal awareness, and the well-being of the whole person. The aim of such practices is to regulate stress responses, improve emotional responses, and boost resilience to psychosocial stressors [9,10].

The effectiveness of MBM in decreasing the symptoms of stress, anxiety, depression, and other mental health problems among adolescents around the world has been shown in several studies [11,12]. The use of mindfulness-based interventions has been demonstrated to positively affect attention regulation, ruminative thinking, and emotional stability among youth with socioeconomic and/or academic stressors [11]. Meditation and relaxation techniques also have been associated with better sleep quality, lower physiological activation, and greater psychological flexibility [13]. Yoga, a physical, breathing, and meditative exercise, has physical and emotional health benefits [14,15].

The findings are of particular importance for Nigeria, where formal mental health services are very limited in terms of funding, availability of trained staff, size (only available in urban areas), and the stigma attached to mental illness [12]. As a result, many at-risk youngsters do not receive or use the right treatment. MBM practices, however, are cheap, scalable, and flexible and therefore offer potential alternatives and complements to current mental health services [16].

In addition to local influences, job insecurity and psychological stress among young adults have risen globally due to the global economic instability, such as inflation, political uncertainty, and competitive job markets [2,17]. These wider trends add to the need for flexible, culturally sensitive mental health responses. The cultural capital theory suggests that people's capacity to adopt health-promoting behaviors is related to their access to culturally valued knowledge and practices [18]. This theory emphasizes the importance of adjusting the theory to local values, norms, and social meaning systems for increased effectiveness of MBM.

Mind-body practices are consistent with contemporary concepts of mental health, which consider mental health to be more than the absence of disorder but rather a state of emotional balance, adaptability, and meaningful engagement with the environment [4]. MBM helps to support holistic mental health by working on both physiological stress pathways (ANS mechanisms and cortisol regulation) and cognitive-emotional processes. These interventions could help to regulate emotions, reduce stress, build resilience, and improve functioning in those who are out of work for prolonged periods among Nigerian youths.

The inadequacy of the current mental health service delivery in Nigeria agrees with the need for therapeutic approaches that can be utilized in resource-poor environments [8]. Unemployment exposes many youths without jobs to financial difficulties, social marginalization and stigma, further adding to their psychological burden and sense of helplessness [9]. Therefore, the need of the hour is to find evidence-based solutions that are affordable, non-stigmatising and could be implemented at the community level [10].

MBM such as mindfulness, deep breathing, yoga, and progressive muscle relaxation can be provided in group, one-on-one, or digital formats, without the need for special equipment or professional support [6]. The qualities outlined above mean that MBM presents a viable addition to the limited mental health care structure in Nigeria. Furthermore, MBM's

cultural adaptability enables it to connect with native Nigerian cultural values of spirituality, community support, and comprehensive health, potentially boosting acceptance among Nigerian youth.

2. Methods

2.1 Study Design

The study aimed to systematically review and synthesize evidence on the effectiveness of MBM interventions on the mental health outcomes of unemployed youth, with a focus on Nigeria, through a structured and reproducible approach that involved predefined eligibility criteria, a systematic literature search, and transparent methods for synthesizing the literature. Considering the scarcity of Nigeria-specific studies, evidence from similar countries in sub-Saharan Africa and other low-resource settings was included to enrich the context and fullness of the evidence. This review was done and reported following the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, to be transparent with the identification of studies, screening, assessment of eligibility and inclusion. Since there was significant variation in the type of intervention, outcome measures, and study design, a quantitative meta-analysis was not attempted, and results were summarized narratively with a thematic approach to give an integrated interpretation of findings.

The information sources and search strategy are described. The sources of information and the search strategy are identified.

2.2 Search Strategy and Information Sources

The literature search was carried out in PubMed, Scopus, Web of Science, PsycINFO, and Google Scholar databases. As the studies are region specific, additional searches were conducted in African Journals Online, the WHO Institutional Repository for Information Sharing and relevant grey literature, such as organisational reports, dissertations and conference proceedings.

Around the words or phrases:

MBM or mind-body interventions (MBIs) or mindfulness or yoga or meditation or relaxation therapy or breathing exercises or stress reduction and mental health or psychological well-being or depression or anxiety or stress and unemployed youth or youth unemployment or young adults and Nigeria or Africa or sub-Saharan Africa.

A manual search of reference lists of included studies was conducted to find other relevant publications.

2.3 Eligibility Criteria

Included: Empirical studies published between 2000 and 2026, which were peer-reviewed.

Youth aged 15-35 years, particularly among the youth who are not in education, employment, or training or at risk of being not in education, employment, or training.

Mindfulness, meditation, yoga, guided imagery, breathing exercises, and relaxation-based therapies are all interventions used in the MBM program. Mindfulness, meditation, yoga, guided imagery, breathing exercises, and relaxation-based therapies: Interventions used in the MBM program.

Research with measurable mental health outcomes (stress, anxiety, depression, emotional regulation, resilience).

Research studies carried out in Nigeria, sub-Saharan Africa, or other transferable contexts in low- and middle-income countries.

Grey literature that provides adequate methodological information.

Exclusion criteria:

Non-human studies.

Individuals with mental health outcomes that are not in the youth age group or who do not have mental health outcomes

Editorials, opinion pieces, or studies with no methodological transparency (not covered by Point 3).

Books with partial translation that are not in English.

The studies included were randomized controlled trials (RCTs), quasi-experimental, pre-post intervention, cohort studies, cross-sectional studies, and qualitative studies reporting on MBM outcomes.

2.4 Study Selection and Data Management

All the records were downloaded into a reference management system, and duplicate records were eliminated. Titles and abstracts are screened by two independent reviewers, and then the full text by additional reviewers. Discussions or

consultation with a third reviewer were used to resolve discrepancies. The same inclusion/exclusion criteria were applied to evaluate grey literature. A PRISMA flow diagram (Figure 1) was created to illustrate the identification, screening, eligibility, and inclusion criteria of studies. Study information gathered consisted of study locations, study population characteristics, intervention type of MBMs, study design, outcomes, and study findings.

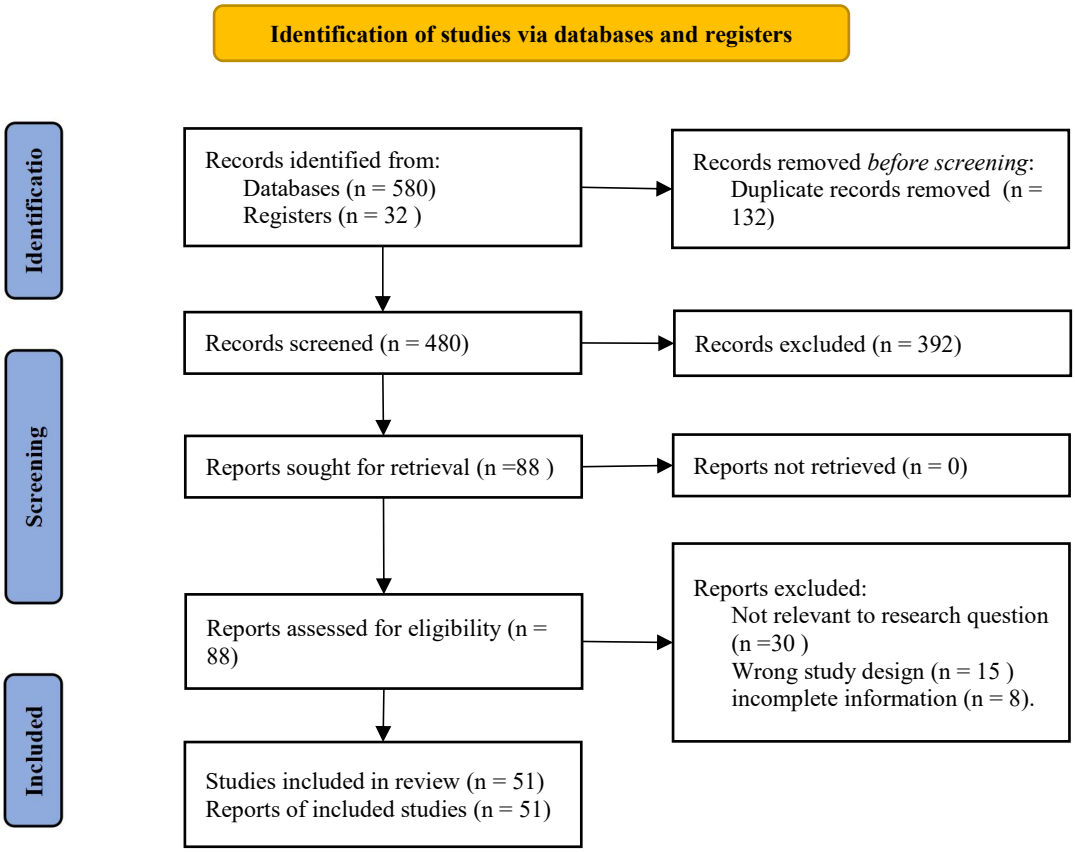

Figure 1. PRISMA flow diagram.

2.5 Data Extraction

A data extraction form was created to standardize the information that should be extracted from eligible studies in order to have consistency and accuracy in the data extracted. Systematic extraction of relevant data from each article included was conducted involving the author(s) and year of publication, the country of study, the study design, the sample size and characteristics of the participants, the type of MBM intervention, the outcome measures that were used, and the main findings related to mental health outcomes. This systematic process allowed for comparison of the studies and synthesis of evidence.

2.6 Quality Appraisal

The quality of the selected studies was evaluated to provide methodological rigor and assure reliability of evidence included through the application of principles of critical appraisal adapted from AMSTAR-2 and relevant methodological checklists. Study design clarity, sampling methods, description of interventions, outcome measurement, and reporting transparency were all taken into account in the appraisal. The exclusion of studies was not limited to those of low quality but rather based on a consideration of methodological strengths and limitations.

2.7 Data Synthesis

A qualitative thematic synthesis approach was chosen due to the heterodox nature of the study designs, interventions, and outcome measures. The studies were classified by intervention type and target population and assessed mental health outcomes. Common patterns of effectiveness, interventions, methodological limitations, and gaps in research were identified and synthesized narratively. Because of the lack of uniformity in the study methods and reporting of the outcomes, a quantitative meta-analysis was not performed.

2.8 Ethical Considerations

No new data were collected for this study, and it was a secondary analysis of existing literature; therefore, no ethical approval was required. All studies included, however, were examined to confirm that ethical guidelines (where applicable) such as informed consent and institutional approval were reported.

3. Conceptual Framework

MBM offers a body of knowledge about the interrelationships of physiological, psychological, emotional, and behavioral processes in relation to mental health outcomes, particularly for vulnerable populations like unemployed youth. This model focuses on the fluid interactions between the brain, mind, body, and behavior, which implies that people can positively influence these systems to improve well-being and minimize the prevalence of disease associated with stress. Biopsychosocial factors are integral to mental health, and MBIs stimulate salutogenic processes that facilitate resilience, emotional balance, and overall functioning [13,14].

Mind-body practices seek to teach people how to regulate their bodies, their emotions, and their minds with relaxation, breathwork, movement, and meditation to cope with the stress reaction. These interventions alter neural, hormonal, and immune messages and maintain homeostasis and adaptive coping when facing environmental stressors. This is especially important when considering the socio-economic difficulties that Nigeria's youth face when they are unemployed, such as social pressure, mental health, and economic instability.

One of the key tenets of this approach is that lifestyle and behavioral choices establish mechanisms that have long-term impacts on mental health in a recursive way. A combination of lifestyle-based interventions and motivational and cognitive methods can be used to promote healthier lifestyles that improve psychological resilience [15]. MBM, therefore, does not just talk about mental health as disease, but rather as an act of intentional regulation, coherence, and harmony.

The concept of holistic wellness also takes into account the whole person, rather than physiological and psychological components, in isolation from one another. Wellness includes physical activity, relaxation techniques, sufficient rest, intellectual stimulation, and emotional awareness [14]. Mind-body techniques (e.g., meditation, yoga, tai chi, mindfulness, and breathing) improve mental acuity, emotional control, and stress reduction [13,14].

MBIs also mitigate the physiological impact of psychosocial stressors such as family demands, economic strain, social stigma, and unemployment by decreasing autonomic arousal, increasing parasympathetic activity, and improving cognitive flexibility [13]. With a focus on motivational and behavioral science, interventions such as health coaching and motivational interviewing can help create sustainable lifestyle changes and intrinsic motivation, especially for populations that have less external support [15].

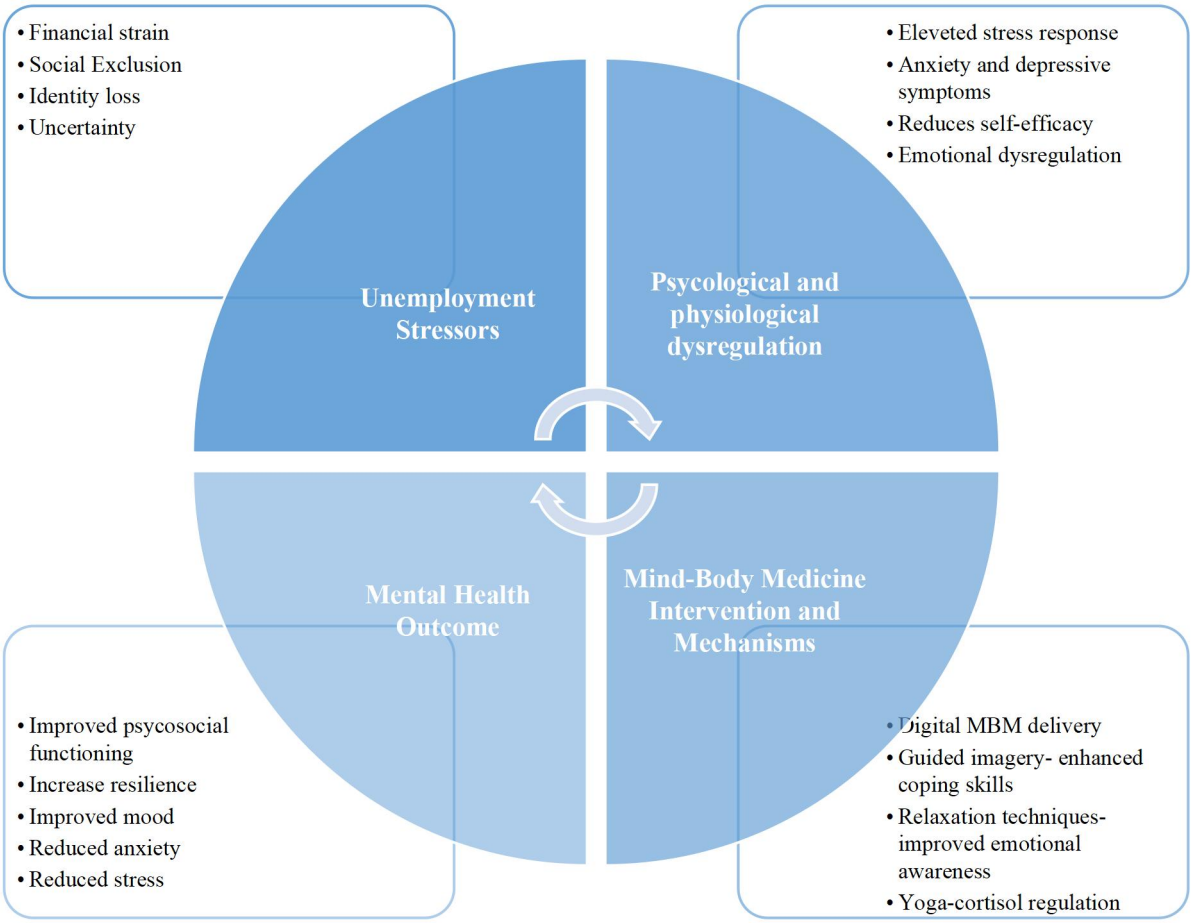

Figure 2. Conceptual pathways linking MBM to mental health outcomes in unemployed youth.

The framework is based on a salutogenic approach, which moves beyond disease treatment to health promotion. Mind-body practices promote a sense of coherence, emotional balance, and resilience through activation of internal resources and pathways that promote health [13]. These interventions offer culturally appropriate and scalable strategies for the management of anxiety, depression, and chronic stress in the context of the Nigerian youth who are out of work.

The conceptual model is shown in Figure 2, where psychological and physiological dysregulation, characterized as increased stress responses, anxiety, depressive symptoms, and decreased self-efficacy, are caused by stressors associated with unemployment: financial strain, social exclusion, identity loss, and uncertainty. MBM interventions like mindfulness, guided breathing, yoga, relaxation techniques, and digital delivery work via autonomic regulation, cortisol reduction, cognitive reframing, and emotional awareness. These processes allow for better coping, resilience, and psychosocial functioning, which in turn leads to better mental health outcomes without reiterating the previously mentioned holistic or integrative principles.

4. Results

4.1 Overview of Included Studies

This review was a synthesis of the peer-reviewed articles, conceptual analysis, and empirical studies regarding the application of MBM and integrative therapy for improving mental health outcomes in young people. Although research specifically looking at the position of the unemployed youth in Nigeria is limited, there is plenty of research to be found that looks at similar low-resource settings in Africa, and information found in global research on adolescent populations can help to understand how it is possible to apply MBM-based interventions to the population of the unemployed youth in Nigeria.

Some of the studies emphasized the incorporation of psychosocial, behavioral, and neurocognitive constituents of MBM interventions with a primary focus on such modalities as mindfulness, yoga, breathing exercises, guided imagery, resilience-building programs, and relaxation techniques. All of these modalities have been found to have tremendous potential to address emotional well-being, especially in the context of socioeconomic instability and limited access to conventional mental healthcare services [16].

The use of digital and mobile delivery of MBM interventions, specifically internet-based mindfulness and relaxation programs, has become the point of interest as a convenient mechanism of providing mental health support to youth, particularly in resource-restricted populations. Recent systematic reviews are proving the viability and rising efficacy of these types of mobile and web-based MBM programs in anxiety and depression management, which indicates a high degree to which they can be adapted to unemployed young Nigerians that might receive some low-cost support devices remotely [17].

The psychological burden on the young population has also been increasing in international studies, such as anxiety, depression, and stress-related disorders, which could be exacerbated by socioeconomic consequences, unemployment, and lack of health care access [18]. The stressors that were identified in this study support the possibility of scaling up and/or making MBM interventions more cost-effective in addressing the problem of long-term unemployment among the young people in Nigeria.

The MBM interventions have been shown across studies included to have a positive impact on psychological well-being, emotional control, resilience, stress reduction, and self-efficacy [17,19]. MBI demonstrated significant anxiety changes as well as emotional stability changes, which are probably mediated by neurobiological mechanisms of managing attention and autonomic balance. Breathing exercises and yoga helped to improve the mood and produce physiological relaxation, whereas guided imagery and progressive muscle relaxation brought about perceived stress reduction and greater mental clarity.

Some evidence also suggested that the MBM interventions foster self-esteem, self-concept, and coping skills and, as a result, reduce the vulnerability to psychiatric signs in the youth [19]. However, the diversity of methodologies used in the studies, which is a limitation, was also a strength in proving the malleability and generalizability of MBM strategies in the intercultural and socioeconomic context [17].

Signs from sub-Saharan Africa indicate that the mental health needs of adolescents and young people are severely affected when facing poverty, trauma, and a lack of access to specific services [20]. Although integrated sexual and reproductive health and HIV care platforms have continued to improve, the issue of mental health has been grossly underrepresented in the programs of adolescent health, indicating a significant service gap [16]. There is particular urgency to fill this gap considering the high levels of adverse childhoods and socioeconomic vulnerability of youth in low- and middle-income nations [21,22].

Another one of the key findings from the review is that there is an increasing research interest in novel digital tools, including AI-powered mental health resources, aiming to increase access to mental healthcare in Africa, given the limited availability of human resources. However, experts maintain that such interventions should be used to complement (not replace) the human-centered care due to privacy and ethical issues and the need for establishing therapeutic rapport [23,24].

On the whole, even though primary data collection was not carried out among unemployed young people in Nigeria, the multiplicity of evidence in the global and African contexts makes MBM interventions scalable, adaptable, and culturally acceptable solutions to enhancing the mental health outcomes of this vulnerable group.

Table 1. Summary of studies on MBIs relevant to youth mental health.

Population & Context	Intervention Type	Outcomes Measured	Key Findings	References
Adolescents in Sub-Saharan Africa	Integrated psychosocial + health interventions	Anxiety, coping, mental well-being	Highlighted gaps in mental health components within youth programs	[16]
Global youth & adults with chronic conditions	Internet / mobile MBM programs	Depression & anxiety	Demonstrated strong efficacy of digital MBM interventions	[17]
Workplace mental health (relevant to unemployed youth stress patterns)	Tailored digital MBM	Stress, mood disorders	Effective for reducing workplace-related psychological distress	[18]
Youth & adults across lifespan	Physical activity + mind-body pathways	Psychiatric symptoms	MBM supports neurobiological mechanisms regulating emotions	[19]
Kenyan adolescents	Lay-provider delivered MBM	Depression, anxiety	Effective low-cost, community-delivered intervention	[20]
Young women in SSA	Review of mental health gaps	Access to care	Major gaps in adolescent mental health services in low-resource areas	[21]

Notes: MBM = Mind-Body Medicine; SSA = Sub-Saharan Africa. All interventions demonstrate potential relevance to unemployed youth in low-resource contexts.

The research outlined in Table 1 is indicative of the increasing importance of MBIs for enhancing youth mental health in a variety of low-resource and global settings. A review of evidence from Sub-Saharan Africa demonstrates the need for an enhanced mental health dimension to current psychosocial programs. Digital MBIs, both online and via mobile platforms, are highly effective in reducing depression and anxiety symptoms among youth and adults, and workplace-specific MBIs that are relevant to stress patterns for unemployed youth are effective in reducing psychological distress. Longitudinal studies provide additional support for the neurobiological mechanisms via which exercise and MBIs control emotions and alleviate psychiatric symptoms. Low cost and community-delivered MBIs provided by trained lay providers have been effective with Kenyan adolescents and are suitable for scaling up in resource-limited settings. Lastly, publications about young women in SSA highlight major challenges accessing mental health services, further reinforcing the need for accessible and culturally responsive interventions like MBIs.

4.2 Mental Health Outcomes and Mind-Body Interventions

4.2.1 Mindfulness Activities & Meditation

The interventions of mindfulness and meditation will always lead to enhanced results of emotional management, attentional regulation, and anxiety in youth groups. These advantages have been linked to the activation of neural circuits that deal with stress regulation and reappraisal of coping [17]. It has been demonstrated that mindfulness training could be used to help people end their distressing behavioral patterns of thinking, which is very relevant in the youth of Nigeria who have been jobless and have been experiencing social pressure, financial pressures, and uncertainty.

4.2.2 Breathing Exercises and Yoga

The evidence was most strong in support of the ability of yoga and breath-based techniques to support the optimal functioning of the physiological and psychological bodies. Such interventions increased activity of the parasympathetic nervous system, which led to reduced stress, elevated mood, and reduced emotional responsiveness. When deep breathing exercises were studied in relation to African youths, it was found that deep breathing exercises help to create a calm state and resilience to negative situations [19].

4.2.3 Techniques of Relaxation and Guided Imagery

The most frequently used techniques were guided imagery and progressive muscle relaxation, thought to reduce the sensed stress and improve mental focus. They have limited resources, and modal delivery is suited to a community-based approach. After regular practice, the results of the low-resource settings showed improvement in sleep, associative arousal, and cognitive functioning [18].

4.2.4 Coping Enhancement and Resilience

Some of them included research that led to the enhancement of resilience, emotional flexibility, self-concept, and coping styles. MBM interventions were able to cognitively restructure, augment emotional resilience, and promote positive coping mechanisms with stressors such as unemployment, unstable society, and lack of opportunities [19, 20].

4.3 The Effectiveness of the Program in the Case of Unemployed Young People

4.3.1 Africa and Low-Resource Evidence

The Kenyan, South African, and other studies from sub-Saharan Africa suggested that MBM interventions were viable, culturally acceptable, and therapeutic with psychologically suffering youths. The findings indicate that such interventions can be put in place to support the unemployed youths in Nigeria, where poverty, societal pressure, and mental health services all co-exist [20,21].

Table 2. Impact of MBM interventions on key mental health indicators.

Mental Health Indicator	Effect of MBM Interventions	Implications for Nigerian Unemployed Youth	References
Anxiety	Significant reductions via meditation, mindfulness, yoga, and guided breathing techniques	Helps manage uncertainty, anticipatory stress, and anxiety related to unemployment and financial insecurity	[17,19]
Depression	Improved emotional balance, mood stabilization, and reduced depressive symptoms	Counters hopelessness, enhances motivation for employment-seeking, and supports positive outlook	[18,20]
Stress	Reduction in physiological markers (cortisol, heart rate) and subjective stress responses	Supports coping with financial strain, social pressures, and chronic stress from joblessness	[17,19]
Resilience	Enhanced through regulation of mind-body pathways, emotional self-regulation, and adaptive cognitive strategies	Strengthens endurance, adaptive capacity, and psychological flexibility during prolonged unemployment	[19,20]
Coping Skills	Improved emotional regulation, cognitive flexibility, problem-solving ability, and stress appraisal	Builds adaptive responses to adversity, facilitates better psychosocial functioning, and encourages proactive problem-solving	[17,21]

Notes: MBM = Mind-Body Medicine. Evidence supports scalable, culturally sensitive interventions applicable to low-resource settings among unemployed youth.

As observed in Table 2, there were significant benefits of the MBM interventions in several mental health markers that are of significant relevance to unemployed youth in Nigeria. Consistent evidence indicates that interventions like mindfulness training, meditation, and breathing exercises have been shown to be effective in lowering anxiety and stress, which can help young people handle uncertainty, financial pressures, and social pressure surrounding long-term unemployment. MBM also helps to reduce depressive symptoms by helping to regulate mood and balance emotions, which helps to work through feelings of hopelessness and increases motivation when searching for jobs. Further, they build the resilience and coping mechanisms required for facing difficult circumstances in low-resource settings through practices that support emotional self-regulation, cognitive flexibility, and problem-solving skills. The evidence as a whole confirms the scalability and low cost of MBM as a strategy to increase the psychosocial well-being of unemployed youth in Nigeria.

5. Discussion

5.1 Interpretation of Findings

According to this review, MBM is one of the opportunities that can be leveraged to address mental health challenges among the unemployed youths, particularly in Nigeria, a low-resource country. The interventions included in the reviewed studies demonstrated ongoing improvements in psychological health, stress, emotional stability, and resilience in all of the studies [25,26]. The rationale of these benefits in theory has to do with the ability of these practices to facilitate self-regulation, increase coping mechanisms, and improve adaptive behavior response to stressors.

The great strength of the contemporary evidence is that multiple different mind/body interventions have been studied and that the trend of multiple psychological outcomes is positive. Interventions seem to be flexible and adaptable and may be scaled with the help of digital platforms, which is especially applicable in areas with a poor mental health infrastructure [27,28]. Moreover, the practices are non-invasive and have minimal side effects in addition to being

embedded in everyday practices, making them appropriate among the youth, as the provision of traditional mental health services can be economically or logistically prohibitive.

There are, however, a few caveats that need to be noted. Numerous studies were not comparing groups; are based mostly on self-report; and have not completely considered confounding factors, which may affect the results, such as socioeconomic status, pre-existing mental health conditions, etc. [29]. In addition to this, the diversity of methodologies, including the length of intervention, frequency of intervention, and how the intervention is delivered, also limits the external validity of the results [26,30]. Notably, few studies have been conducted in the Nigerian setting, let alone in relation to the unemployed young adults group, which is another major research gap that limited the generalizability to the vulnerable group [27,31]. However, the general trend across the range of different modalities, representing the mind and body, indicates that these can be effective means of reducing stress and regulating emotions [32,33].

5.2 Practical Implications

Based on this review, the following are some practical implications for policymakers, community health practitioners, and program developers interested in scalable approaches to enhance youth mental health. Mind-body practices have the potential to be a cost-effective, culturally flexible, and accessible approach in the context of community mental-health services. Structured mindfulness sessions, yoga workshops, and guided relaxation exercises may be integrated into formal school programs or as part of extracurricular programs within school or vocational training programs or youth development programs, increasing reach and sustainability [25,27].

From a policy perspective, mental-health literacy building can be achieved by promoting targeted public awareness campaigns to expand acceptance and utilization of MBIs among the youth that are not working. While digital delivery platforms can provide further access extension, it is important to consider offline modules, audio-guided practices, and mobile messaging support in interventions to ensure inclusivity in low-resource contexts [30,34]. Using existing institutional structures, such as working with the institutions like Synapse Services and linking to the country's institutional structures on youth engagement (like National Youth Service Corps), can also help to support pilot implementation and scale up [35,36].

Local capacity can be developed through training community health workers, peer facilitators, and social workers to provide brief, evidence-informed MBIs, which can help strengthen sustainability. Incorporating programs into community-based, culturally relevant venues, such as youth centers, religious institutions, and primary health care offices can increase cultural relevance and participant engagement and improve the environment for behavior change [37].

In addition to treatment, MBIs also have preventative potential in providing at-risk youth with adaptive coping skills. These strategies can enhance psychosocial functioning, resilience, and social integration outcomes and minimize the risk of developing serious mental health problems through a process of cultivating self-awareness, emotional regulation, and stress-management skills [31,33,38].

5.3 Research Gaps

While promising data is available, there remains a great deal of research that focuses on the unemployed youth in Nigeria. This population under study does not include RCTs, which restricts the ability to draw definitive conclusions about the effectiveness of the interventions [26,25]. Very few studies have examined culturally adapted methodologies that account for local beliefs and traditions and the contextual stressors that are crucial to ensure acceptability and engagement with the young Nigerian generation [27].

Longitudinal studies that can answer the questions regarding what benefits mental health in the long term are lacking. Research in the future ought to consider the best frequency, time, and combinations of MBIs and how they can be combined with other psychosocial support mechanisms. Yet another good research line is to evaluate the feasibility of the digital and hybrid delivery models, particularly in rural or resource-limited settings [34,35].

In addition, the cost-effectiveness of digital and face-to-face MBIs has yet to be investigated in low- and middle-income countries (LMICs), including Nigeria, where they could be used to inform the potential to scale up MBIs more broadly to the general population [34,30]. Although it has been demonstrated that there are favorable short-term outcomes in terms of anxiety and post-traumatic stress symptoms with certain interventions, there is a shortage of larger samples and follow-ups in the long term in order to determine the long-term effectiveness [25]. Also, the ethical component of such practices as yoga and mindfulness has not been fully studied, and their role in the general well-being and cultural responsiveness should be investigated further [31,35].

These research gaps will be leveraged to inform the development of culturally competent and accessible MBIs for the support of unemployed youths in Nigeria, which promotes sustainability. This kind of research can be used in developing strategies to decrease mental health disparity, increase resilience, and improve psychosocial well-being in the long term in this vulnerable group.

6. Cultural Adaptation of Mind-Body Medicine in Nigerian Contexts

6.1 Cultural Sociology Perspective: Habitus and Symbolic Practices

MBM interventions do not exist in a vacuum but rather in a social context with social norms, belief systems, and everyday behaviors within the community that impact their acceptance and effectiveness. Health behaviors and coping strategies are deeply embedded in culture and cultural meanings and are grounded in cultural sociological perspectives such as those of Bourdieu's habitus.

Social and cultural factors such as religion, family, communal identity, etc. play an important role in the experience of mental health and coping in Nigeria. Research has shown that stigma, cultural views of mental distress, and social norms play a major role in the way people think about mental distress and access to mental health services [36].

These social systems establish symbolic barriers between the biomedical mental health system and familiar culturally congruent coping mechanisms. Such interventions, which are culturally congruent and fit into local contexts like meditation as prayerful reflection or breathing exercises that are part of spiritual rituals, can lead to higher acceptability and adherence.

6.2 Incorporating Local Spiritual and Communal Practices

There are several studies from Nigeria and Africa that have shown the important role played by spiritual practices, prayer, and support from the community in coping with psychological distress. Religious and pastoral caregivers frequently serve as first-contact mental health care providers, especially where mental health services are not available [37].

The cultural reality indicates that adaptations can be made to MBM interventions and that the following may be included:

Guided relaxation in a context of prayer or reflective devotion.

Mindfulness with a group to be used in a group event

Techniques for breathing control associated with spiritual meditation.

Culturally meaningful symbols and guided imagery.

These culturally adapted strategies are consistent with evidence that community relationships, faith practices, and social support networks are often found to be important to emotional resilience and hope among Nigerian youth [38].

The results in this study support the view that MBM interventions can be more effective if they engage the local coping system instead of simply importing a western therapeutic approach without adaptation.

6.3 Evidence from Nigerian and African Mental Health Research

Recent Nigerian research underscores the more general social factors influencing mental health in youths, such as socioeconomic pressures, schooling-related strain, and coping mechanisms that are culturally specific. Some studies conducted in Nigeria have indicated that coping strategies such as social support, behavioral adaptation, and reflective coping are key factors in stress and depression management among students [39,40].

Likewise, population-level research shows that ecological and home environments have significant impacts on adolescent mental health, highlighting the need for program-level contextual and culturally responsive interventions in youth mental health services [41,42].

The results of this study are quite supportive of the relevance of employing MBM approaches, especially when tailored to meet the social and cultural needs of the Nigerian youth, where interventions are needed to be community-based and low-cost.

6.4 Implications for implementation of MBM in Nigeria

The implementation of MBM into the Nigerian Youth Mental Health Service therefore needs to take into account the following:

Cultural framing - presenting mindfulness and relaxation skills in a culturally familiar language.

Community-based delivery (schools, youth centers, and faith-based institutions).

MBM and psychosocial education and peer support (hybrid models).

Digital and low-cost dissemination–availability for the youth who are unemployed.

Culturally anchored interventions have been shown to increase engagement, decrease stigma, and increase sustainability in resource-limited environments.

7. Cultural Barriers and Indigenizing Modalities of Mind-Body in the Nigerian Context

The adoption of Mind-Body Modalities (MBMs) like mindfulness, yoga, and meditation in Nigeria must be undertaken in a way that takes into account several cultural barriers affecting the perception of mental health. The study revealed that mental health remains highly stigmatized in many communities in Nigeria, with mental health problems being blamed on spiritual causes, weakness of moral character, or supernatural forces instead of psychological or physiological causes [43,44]. Such beliefs can keep individuals from seeking the help they need and decrease their involvement with interventions that they consider "foreign" or contradictory to their understanding of health and illness. Mental health stigma has been consistently reported as a major obstacle to mental health treatment, resulting in delayed treatment, distancing, and stigma towards mental health, particularly among healthcare students and youth, who continue to be affected by predominant cultural narratives [45].

Religious beliefs and practices are major determinants of the perception and treatment of mental health in Nigeria, apart from stigma. Qualitative research shows that religious healing, whether in the form of prayer, clerical intervention, or spiritual rituals, is seen as a major way to deal with psychological distress by many members of the community [44,46]. If MBMs are not in line with these deeply felt convictions, programs are likely to be viewed as incongruent or irrelevant to real life. Strategies that meet this need must take into account and embrace current spiritual practices rather than viewing MBMs as an opposition.

Programs can be culturally adapted by incorporating familiar components of the culture, such as African music, storytelling, or traditional dance in movement-based activities such as yoga, to help make the program more acceptable and thus more likely to be embraced by the target population. It is creative transformations of existing cultural expressions that are meaningful and engaging to Nigerian youth. Culturally competent practices have shown to enhance community acceptance and health resiliency when they are in line with local practices. Likewise, mindfulness can be presented as complementary to Islamic and Christian approaches to meditation (e.g., through the idea of being mindful while being prayerful or mindful through the process of reflective recitation, which occurs during daily devotions). Research across a wide range of communities demonstrates that emphasizing mindfulness in a way that resonates with participants' religious or spiritual beliefs enhances participation and decreases the perceived tension between secular MBMs and their religious or spiritual beliefs [46].

Researchers and practitioners should work with local cultural and religious leaders to co-design MBM programs. Contextually based, culturally respectful, and stigma-reduction partnerships can help ensure practices are culturally relevant and rooted in local values rather than tradition and stigma [1,2,5]. Embedding MBMs in culturally familiar practices and belief systems increases the chances of acceptability, sustainability, and effectiveness among Nigeria's population.

8. Evidence Synthesis, Equity Considerations, and Research Gaps in Mind-Body Modalities (MBMs) in Sub-Saharan Africa

8.1 Reducing Stress and Anxiety

African studies indicate that some aspects of psychological wellness are related to the use of MBMs, though most of these studies are preliminary. One survey in Nigeria of university students indicated that they thought that mindfulness-based interventions helped to decrease their stress and improve their academic functioning, suggesting a possible role in youth mental health promotion. In the same way, results of the qualitative study conducted in a South African higher education institution after a positive psychology intervention of yoga indicated that the intervention had a positive impact on all three domains of well-being (emotional, psychological, and social): the participants described the program as a meaningful intervention in response to stressors [47].

Although there is such good research, most of the studies are of small sample sizes and use self-reports to limit causal inferences. There has been a lack of robust randomized RCTs in African populations, which calls for more effective studies.

8.2 Resilience and Holistic Well-Being

Evidence from across SSA suggests that MBMs can assist in supporting resilience and psychosocial functioning. A study in Kenya demonstrated the feasibility and acceptability of trauma-informed yoga and mindfulness training and participants' readiness for implementing coping strategies in their communities [48]. Furthermore, the possibility of wellbeing and active mental health promotion with yoga-based programs, especially in South Africa, with institutional support structures, exists [49].

8.3 Implementation Challenges and Contextual Barriers

Contextual factors to enhance MBM uptake have been a recurring theme across all African studies. Three factors have been identified as critical to the successful implementation of a program in a workplace and/or educational context: organizational support, participant motivation, and cultural relevance. Furthermore, feasibility studies in Kenya

highlight the need for culturally appropriate delivery models and relationships with local stakeholders to improve acceptability [49].

However, there is greater research focus on urban or institutional populations and fewer studies investigating rural populations or community-based delivery models.

8.4 Equity Dimensions: Gender and Socioeconomic Differences

While equity is a consideration that is under-explored, it is nonetheless important. Structural inequalities, including gendered socioeconomic vulnerability, influence access to interventions and coping resources for mental health and well-being in Africa, as revealed by mental health and social research in the region. An example of this is the research conducted on the concept of youth development and social participation in South Africa, which identifies that the structure of the world has an impact on participation in developmental programmes, with the need to design inclusively.

To promote gender equality in MBM programs, gender responsive strategies should be included, and barriers to accessing MBM programs like cost, safety, and time should be addressed [50].

9. Regional Evidence from Nigeria and Sub-Saharan Africa

While there is limited research on MBM specifically for Nigeria's unemployed youth, a number of recent studies at the regional level and evidence from sub-Saharan Africa highlight the potential relevance and benefits of mind-body approaches to mental health:

A randomized controlled study of vocational education students in Nigeria demonstrated that cognitive-behavioral therapy plus mindfulness-based stress reduction was highly effective in decreasing anxiety and enhancing well-being, indicating a positive impact on mental health outcomes for African youth students, much like students in other parts of the world [51].

The study's results on the level of reduction of stress symptoms in quasi-experimental studies studies from Nigeria suggest that mindfulness practices are effective in reducing stress symptoms more broadly in Africa.

There is growing evidence of scholarly interest in meditation and meditation-based therapies in Nigeria, as seen in systematic reviews that show that meditation therapy is an effective intervention for depression, anxiety, and stress outcomes in mental health literature from West Africa [52].

Realist review evidence from South Africa indicates the potential relevance of mindfulness and related interventions to the well-being of adults in low socio-economic contexts, beyond Nigeria [52].

However, regional case studies from Sub-Saharan African countries also highlight innovative use of mind-body and psychosocial approaches to promote mental resilience:

Community mental health projects such as the Friendship Bench in Zimbabwe highlight the effectiveness of organized psychosocial interventions by laypersons for the prevention of depression and common mental illnesses in low-resource settings in Africa and thus the feasibility of culturally adapted, non-clinical mental health care.

The increased interest in mind-body approaches to mental health has also manifested in Africa through informal mindfulness-related activities, like community-based yoga sessions designed to support people in coping with stress, and such activities that provide emotional assistance.

Together, these studies signal the growing evidence and recognition of integrative mind-body therapies (mindfulness plus cognitive behavioural therapy, meditation, stressors, etc.) as viable and effective in mental health support in Nigeria and Sub-Saharan Africa. To date, however, most studies have targeted student populations or adults in general, leaving an important gap for future studies that examine context-specific randomized and longitudinal samples of the target population of unemployed youth.

10. Conclusion

This review aims at bringing together current evidence of possible application of MBM in the mental health of the jobless youths, especially in low-resource countries like Nigeria. The reviewed studies yielded largely positive psychological results, such as stress reduction, emotional regulation, and increased resilience and well-being, but the evidence was mostly indirect and methodologically heterogeneous. Limited empirical studies exist to address the problem of unemployment among Nigerian youth, and most of the data available are from similar but not identical populations.

For this reason, the results should be considered exploratory and not conclusive. While some interventions, like meditation, mindfulness, yoga, breathing exercises, guided imagery, or relaxation techniques, show promise, differences in the study design, length of the interventions, outcome measures, and sociocultural context of the studies make it difficult to make strong causal claims.

Conceptually, MBM interventions dovetail with traditional mental health interventions by targeting interrelated cognitive, emotional, physiological, and behavioral mechanisms. They can strengthen the capacity to be resilient and self-effective via salutogenic pathways and adaptive coping processes. Additionally, digital delivery platforms have the potential to be a scalable way of reaching more people in an area that has limited resources to support traditional mental health systems. But before widespread policy integration, there is a need for strong context-based validation.

Pilot implementation studies should be carried out in high-need communities, including in underserved urban areas, to help turn emerging evidence into practice in a responsible way. Local non-governmental organizations and national youth development program partnerships can aid culturally appropriate adaptation and feasibility testing. Structured training of community health workers, peer educators, and social workers would be needed for sustainable implementation.

There is a need for further research using well-designed RCTs and hybrid implementation-effectiveness designs to evaluate intervention effectiveness, cost-effectiveness, sustained effectiveness, and equity outcomes. Rural population, gender, and socioeconomic barriers must also be considered in greater detail to ensure inclusiveness and contextual relevance. In aggregate, the MBM interventions hold promise of success, but there is a need for more rigorously designed research to validate the interventions' effectiveness and scalability for the young people in Nigeria and other low-resource countries who are not employed.

11. Study Limitations

The following are the limitations of this review:

(1) Small number of studies: Only a few high-quality RCTs were found in the review that are specific to Nigeria and focus on youth without jobs. This can also weaken the conclusions drawn in a context and may result in fewer population inferences.

(2) Heterogeneous interventions and outcomes: The studies included were very diverse in terms of the intervention mind-body approach (mindfulness, yoga, meditation, and cognitive behavioral elements), length of treatment, outcome measures, and assessment tools. This heterogeneity did not allow for comparability between the studies and did not allow for a quantitative meta-analysis.

(3) Cross-sectional and short-term designs: Some of the studies included had cross-sectional or short-duration intervention designs, which could not be used to make causal inferences or evaluate the sustainability of the mental health benefits.

(4) Missing follow-up data: Many studies do not have longitudinal follow-up data, limiting the understanding of the sustainability of the benefits of MBIs for youth who are not employed.

(5) Insufficient contextual and clinical information: There was limited contextual and clinical information provided in many studies with regard to socioeconomic status, severity and duration of unemployment, other psychological and/or pharmacological medications, comorbid mental health conditions, cultural information, etc. These factors could have a substantial impact on mental health outcomes and the effectiveness of mental health interventions.

Even though the synthesis was expanded to the regional level, primary research and intervention trials are few and far between in this population, specifically those with unemployed Nigerian youth, and the review offers significant insight into the integrative therapeutic potential of MBM, calling for larger, longer, and more Nigeria-specific RCTs to add to the evidence.

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Ethics Statement

The study did not require ethical approval or informed consent, as it is a review article that is based on literature only and does not involve human participants, animals or primary data collection.

Data Availability Statement

This study has not generated new data nor analysed any. The data on which this review is based is wholly from published, publicly available sources in the manuscript.

Author Contributions

The author designed the study, searched and reviewed the literature, synthesised the results, wrote the manuscript, and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this manuscript.

Generative AI Statement

The author declares that no generative artificial intelligence (Gen AI) tools have been used in the process of creating, writing, analysing, or preparing this manuscript.

Refernces

[1] Achdut N, Refaeli T. Unemployment and psychological distress among young people during the COVID-19 pandemic: Psychological resources and risk factors. International Journal of Environmental Research and Public Health, 2020, 17(19), 7163. DOI: 10.3390/ijerph17197163

[2] Mokona H, Yohannes K, Ayano G. Youth unemployment and mental health: Prevalence and associated factors of depression among unemployed young adults in Gedeo zone, Southern Ethiopia. International Journal of Mental Health Systems, 2020, 14(1), 61. DOI: 10.1186/s13033-020-00395-2

[3] Avery F, Kennedy N, James M, Jones H, Amos R, Bellis M, et al. A systematic review of non-clinician trauma-based interventions for school-age youth. PLoS One, 2024, 19(9), e0293248. DOI: 10.1371/journal.pone.0293248

[4] Bibi Z, Maqsood S, Ahmad F, Ahmed M, Ali A. Examine the psychological and social effects of prolonged unemployment among educated youth, using a quantitative approaches. Advance Social Science Archive Journal, 2025, 3(02), 1423-1438. DOI: 10.55966/assaj.2025.3.2.024

[5] Esch T, Stefano GB. The BERN framework of mind-body medicine: Integrating self-care, health promotion, resilience, and applied neuroscience. Frontiers in Integrative Neuroscience, 2022, 16, 913573. DOI: 10.3389/fnint.2022.913573

[6] MacNeil P, Khare A, Jugdev K. International inequity patterns in youth and young adults related to COVID-19: Advancing sustainable development goals on well-being, education, and employment. Health Economics and Management Review, 2022, 3(3), 60-72. DOI: 10.21272/hem.2022.3-06

[7] Oladosu AO, Chanimbe T. A two-pronged approach to understanding reciprocity and mental health relationship in developing countries: Evidence from young informal construction workers in Nigeria. BMC Public Health, 2024, 24, 1851. DOI: 10.21203/rs.3.rs-3338509/v1

[8] Ndetei DM, Mutiso V, Osborn T. Moving away from the scarcity fallacy: Three strategies to reduce the mental health treatment gap in LMICs. World Psychiatry, 2023, 22(1), 163. DOI: 10.1002/wps.21054

[9] Schulz S, Cysarz D, Musial F, Seifert G. Mind-body medicine and its impacts on psychological networks, quality of life, and health, Volume II. Frontiers in Integrative Neuroscience, 2023, 17, 1188638. DOI: 10.3389/fnint.2023.1188638

[10] Treves IN, Chen YY, Wilson CL, Verdonk C, Qina'au J, Pustejovsky JE, et al. Minding the body: A meta-analysis of the effects of mindfulness meditation training on self-reported interoception. Scientific Reports, 2025, 15, 38889. DOI: 10.1038/s41598-025-22661-4

[11] Winkler-Titus N, Gerber C, Ngalo V. Well-being of remote workers: Work characteristics and challenges. SA Journal of Human Resource Management, 2025, 23, 2876. DOI: 10.4102/sajhrm.v23i0.2876

[12] Yang Y, Niu L, Amin S, Yasin I. Unemployment and mental health: A global study of unemployment's influence on diverse mental disorders. Frontiers in Public Health, 2024, 12, 1440403. DOI: 10.3389/fpubh.2024.1440403

[13] Quinlan EB, Baumgartner J, Chen WG, Weber W, Horgusluoglu E, Edwards E. Promoting salutogenic pathways to health through complementary and integrative health approaches. Frontiers in Psychology, 2024, 15, 1473735. DOI: 10.3389/fpsyg.2024.1473735

[14] Suban SA. Bibliometric analysis on wellness tourism-citation and co-citation analysis. International Hospitality Review, 2023, 37(2), 359-383. DOI: 10.1108/IHR-11-2021-0072

[15] Wolever RQ, Weinand R. Integrating mind-body processes and motivational interviewing in health coaching: Enhancing support for health behavior change. Frontiers in Psychology, 2025, 16, 1478525. DOI: 10.3389/fpsyg.2025.1478525

[16] Musindo O, Jafry S, Nyamiobo J, Becker KD, Gellatly R, Maloy C, et al. Mental health and psychosocial interventions integrating sexual and reproductive rights and health, and HIV care and prevention for adolescents and young people (10-24 years) in sub-Saharan Africa: A systematic scoping review. EClinicalMedicine, 2023, 57, 101835. DOI: 10.1016/j.eclinm.2023.101835

[17] Johnson E, Corrick S, Isley S, Vandermeer B, Dolgoy N, Bates J, et al. Mind-body internet and mobile-based interventions for depression and anxiety in adults with chronic physical conditions: A systematic review of RCTs. PLOS Digital Health, 2024, 3(1), e0000435. DOI: 10.1371/journal.pdig.0000435

[18] Moe-Byrne T, Shepherd J, Merecz-Kot D, Sinokki M, Naumanen P, Hakkaart-van Roijen L, et al. Effectiveness of tailored digital health interventions for mental health at the workplace: A systematic review of randomised controlled trials. PLOS digital health, 2022, 1(10), e0000123. DOI: 10.1371/journal.pdig.0000123

[19] Nguyen Ho PT, Ha PB, Tong T, Bramer WM, Hofman A, Lubans DR, et al. Mechanisms linking physical activity with psychiatric symptoms across the lifespan: A systematic review. Sports Medicine, 2023, 53(11), 2171-2190. DOI: 10.1007/s40279-023-01895-0

[20] Osborn TL, Venturo-Conerly KE, Arango G S, Roe E, Rodriguez M, Alemu RG, et al. Effect of shamiri layperson-provided intervention vs study skills control intervention for depression and anxiety symptoms in adolescents in Kenya: A randomized clinical trial. JAMA Psychiatry, 2021, 78(8), 829-837. DOI: 10.1001/jamapsychiatry.2021.1129
[21] Mutahi J, Larsen A, Cuijpers P, Peterson SS, Unutzer J, McKay M, et al. Mental health problems and service gaps experienced by pregnant adolescents and young women in Sub-Saharan Africa: A systematic review. EClinicalMedicine, 2022, 44, 101289. DOI: 10.1016/j.eclinm.2022.101289
[22] Hannon E, Anselimus SM, Bardikoff N, Bulc B, Germann S, Gonsalves PP, et al. Why cities matter for adolescent mental health and wellbeing. Lancet, 2024, 403(10428), 708-710. DOI: 10.1016/s0140-6736(23)02238-9
[23] Adewuya AO, Abimbola S, Abdulmalik J, Shettima F, Dahiru A, Oladipo OE, et al. A paradox of readiness?: Diagnosing strategic implementation gaps for digital mental health in Lagos, Nigeria. International Health, 2025, ihaf129. DOI: 10.1093/inthealth/ihaf129
[24] WHO-UNICEF EA. Closing the global gap in adolescent mental health. Nature Medicine, 2024, 30(2), 309-310. DOI: 10.1038/s41591-024-02846-6
[25] Sharpe D, Rajabi M, Mesa LG, Hanafiah A, Obuaku-Igwe C, Davidson J, et al. An exploratory cross-cultural study of community-based health literacy interventions to promote the mental well-being of disadvantaged and disabled young Africans: A multi-method approach. Frontiers in Psychiatry, 2024, 15, 1424836. DOI: 10.3389/fpsyt.2024.1424836
[26] Olisaeloka L, Udokanma E, Ashraf A. Psychosocial interventions for depression among young people in sub-saharan Africa: A systematic review and meta-analysis. International Journal of Mental Health Systems, 2024, 18(1), 24. DOI: 10.1186/s13033-024-00642-w
[27] Gaiha SM, Salisbury TT, Usmani S, Koschorke M, Raman U, Petticrew M. Effectiveness of arts interventions to reduce mental-health-related stigma among youth: A systematic review and meta-analysis. BMC psychiatry, 2021, 21(1), 364. DOI: 10.1186/s12888-021-03350-8
[28] Mudiyanselage KW, De Santis KK, Jörg F, Saleem M, Stewart R, Zeeb H, et al. The effectiveness of mental health interventions involving non-specialists and digital technology in low-and middle-income countries-a systematic review. BMC Public Health, 24(1), 77. DOI: 10.1186/s12889-023-17417-6
[29] Wani C, McCann L, Lennon M, Radu C. Digital mental health interventions for adolescents in low-and middle-income countries: Scoping review. Journal of Medical Internet Research, 2024, 26, e51376. DOI: 10.2196/51376
[30] Kuberka P, Johnston MH, Shafran R, Pike K, Yardley L. Digital interventions for anxiety and depressive symptoms in adolescence: Systematic review. Journal of Adolescent Health, 2025, 77(3), 388-404. DOI: 10.1016/j.jadohealth.2025.05.021
[31] Matko K, Bringmann HC, Sedlmeier P. Effects of different components of yoga: A meta-synthesis. OBM Integrative and Complementary Medicine, 2021, 6(3), 1-27. DOI: 10.21926/obm.icm.2103030
[32] Cerdá A, Boned-Gómez S, Baena-Morales S. Exploring the mind-body connection: Yoga, mindfulness, and mental well-being in adolescent physical education. Education Sciences, 2023, 13(11), 1104. DOI: 10.3390/educsci13111104
[33] Agarwal A, Dugar T, Mayekar N, Jalal A, Bhadra A, Benedict DS. The influence of yoga on the mental well-being of female college students, an analytical study from the bhagawad gita using visual models. 2024. DOI: 10.2139/ssrn.4737508
[34] Peeters SB, Hilgersom M, van Krugten FC, Olaya B, Haro JM, Feltz-Cornelis CM, et al. Economic evaluations of eHealth interventions targeting mental health problems in the workplace: A systematic review. Journal of Mental Health, 2025, 34(5), 580-595. DOI: 10.1080/09638237.2024.2390371
[35] Potts C, Kealy C, McNulty JM, Madrid-Cagigal A, Wilson T, Mulvenna MD, et al. Digital mental health interventions for young people aged 16-25 years: Scoping review. Journal of Medical Internet Research, 2025, 27, e72892. DOI: 10.2196/72892
[36] Onu JU, Onyeka TC. Digital psychiatry in Nigeria: A scoping review. South African Journal of Psychiatry, 2024, 30, 2115. DOI: 10.4102/sajpsychiatry.v30i0.2115
[37] Kola L, Abiona D, Adefolarin AO, Ben-Zeev D. Mobile phone use and acceptability for the delivery of mental health information among perinatal adolescents in Nigeria: Survey study. JMIR Mental Health, 2021, 8(1), e20314. DOI: 10.2196/20314
[38] Mindu T, Mutero IT, Ngcobo WB, Musesengwa R, Chimbari MJ. Digital mental health interventions for young people in rural South Africa: Prospects and challenges for implementation. International Journal of Environmental Research and Public Health, 2023, 20(2), 1453. DOI: 10.3390/ijerph20021453.
[39] Nwafor CI. Suicide prevention strategies in nigeria: Exploring religious Roles, Insights, and challenges. Religions, 2024, 15(1), 64. DOI: 10.3390/rel15010064
[40] Bella-Awusah T, Abdurahman H, Omobowale O, Aturu O, Afolayan A, Ogunmola O, et al. Lessons of hope and resilience: A co-produced qualitative study of the experiences of youth living with psychosis during the COVID-19 pandemic in Nigeria. Community Mental Health Journal, 2024, 60(1), 47-59. DOI: 10.1007/s10597-023-01128-8
[41] Obilade TT, Koleoso PO, Nwenendah-Mpi EW. An investigative study on the causes of depression and the coping strategies among clinical medical students in private universities in north central Nigeria. BMC psychiatry, 2024, 24(1), 726. DOI: 10.1186/s12888-024-06197-x
[42] Folorunso OE, Ojo TO, Akinsulore A, Inyangudo G. Adolescent mental well-being and household food security: Insights from a cross-sectional study in irewole local government area, osun state, Nigeria. BMC Public Health, 2026, 26(1), 30. DOI: 10.1186/s12889-025-25702-9
[43] Adeeniyan A, Ifeoma C, Amara E. Enhancing health resilience through the integration of mindful practices and cultural dimensions. Journal of Asian-african Focus in Health, 2024, 2(2), 52-63. DOI: 10.71435/595700
[44] Okafor IP, Oyewale DV, Ohazurike C, Ogunyemi AO. Role of traditional beliefs in the knowledge and perceptions of mental health and illness amongst rural-dwelling women in western Nigeria. African Journal of Primary Health Care & Family Medicine, 2022, 14(1), 3547. DOI: 10.4102/phcfm.v14i1.3547
[45] Pederson AB, Burnett-Zeigler I, Fokuo JK, Wisner KL, Zumpf K, Oshodi Y. Mental health stigma among university health care students in Nigeria: A cross-sectional observational study. The Pan African Medical Journal, 2020, 37, 5. DOI: 10.11604/pamj.2020.37.5.24898
[46] Ramdani S, Nurlia N, Fajar F. The role of public health interventions in controlling infectious disease outbreaks. Journal of Asian-african Focus in Health, 2024, 2(2), 64-75. DOI: 10.71435/595704

[47] Meiring L, Van Eeden R, Wilson Fadiji A. A qualitative study on the feasibility of a yoga-based PPI for promoting well-being at a South African HEI. SA Journal of Industrial Psychology, 2025, 51, 2249. DOI: 10.4102/sajip.v51i0.2249
[48] Rousseau D, Cook-Cottone C. Trauma-informed yoga training in Kenya: A qualitative pilot study on feasibility and acceptability. Complementary Therapies in Medicine, 2018, 40, 53-60. DOI: 10.1016/j.ctim.2018.07.010
[49] Malema MJ, Young ME, Wegner L. Leisure education to leadership: Youth with physical disabilities' experiences in South Africa. African Journal of Disability, 2023, 12, 1234. DOI: 10.4102/ajod.v12i0.1234
[50] Nwadi CL, Edeh NI, Ugwunwoti EP, Nwokike FO, Nneji OS, Anamezie RC, et al. Impact of cognitive-behavioral therapy and mindfulness-based stress reduction in mitigating test anxiety and enhancing academic achievement among vocational education students at Nigerian universities. BMC Medical Education, 2025, 25(1), 578. DOI: 10.1186/s12909-025-07130-w
[51] Usen KB, Etuk AP, Sunday JR, Abikoye GE. Improving mental health through meditation therapy: A systematic review. International Journal of Research and Innovation in Social Science, 2025, 9, 128-134. DOI: 10.47772/IJRISS.2025.917PSY0015
[52] Foale S, Botma Y, Heyns T. Mindfulness-based interventions to support wellbeing of adults in low socio-economic settings: A realist review. BMC Complementary Medicine and Therapies, 2024, 24, 52. DOI: 10.1186/s12906-023-04263-7