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Psychological Well-Being Among People Living with HIV/AIDS: A Systematic Review of Psychosocial and Contextual Determinants

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Abstract

Background: Advances in antiretroviral therapy have transformed HIV into a chronic condition, yet psychological well-being remains inadequately addressed. Persistent stigma, psychological distress, and social inequities continue to compromise holistic health among people living with HIV/AIDS.
Objectives: This systematic review aimed to synthesize evidence on psychosocial and contextual determinants of psychological well-being among people living with HIV/AIDS and to identify implications for research and practice.
Methods: A systematic literature review was conducted following PRISMA guidelines. Peer-reviewed studies examining psychological well-being, mental health, stigma, coping, social support, and psychosocial interventions among adults living with HIV/AIDS were identified across major databases. Ten eligible studies, including observational studies, intervention trials, and systematic reviews, were critically appraised and synthesized using a thematic approach.
Results: Five interrelated themes emerged. HIV-related stigma consistently showed a negative association with psychological well-being across settings. High levels of depression and anxiety persisted despite antiretroviral treatment. Psychosocial resources, particularly social support, counseling, and adaptive coping, functioned as protective factors. Psychosocial interventions demonstrated beneficial but variable effects, with modest effect sizes and limited long-term evidence. Psychological well-being was also closely linked to behavioral outcomes, including treatment adherence and substance use, highlighting bidirectional relationships.
Conclusion: Psychological well-being among people living with HIV/AIDS was shaped by multilevel psychosocial and structural factors. Integration of standardized mental health assessment, stigma reduction strategies, and context-sensitive psychosocial interventions into routine HIV care was necessary to improve holistic outcomes. Such integration had the potential to enhance quality of life, resilience, and long-term engagement in care across diverse health systems and sociocultural contexts.

Keywords: *psychological well-being, people living with HIV, HIV-related stigma, psychosocial determinants*

Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a collection of symptoms that arise due to a progressive decline in the human immune system caused by the Human Immunodeficiency Virus (HIV). People living with HIV/AIDS (PLWHA) experience complex physical, psychological, social, and spiritual challenges.[1-3] Over the past four decades, HIV infection has transformed from a rapidly fatal condition into a chronic and manageable disease due to the widespread availability and effectiveness of antiretroviral therapy (ART). Early initiation and sustained adherence to ART significantly improve life expectancy, allowing many individuals to achieve near-normal survival.[4,5] Consequently, the focus of HIV care now extends beyond viral suppression and survival toward long-term quality of life and holistic well-being.

Within this evolving context, psychological well-being represents a central dimension of comprehensive HIV care. Psychological well-being is conceptualized as a multidimensional construct encompassing emotional balance, positive affect, life satisfaction, social functioning, and a sense of meaning or purpose in life.[6] Unlike deficit-oriented approaches that emphasize psychopathology, psychological well-being highlights adaptive functioning and resilience in the context of chronic illness. Despite substantial biomedical advances, previous studies reported that PLWHA experienced lower levels of psychological well-being compared to the general population and individuals living with other chronic conditions.[7,8] These findings demonstrated the persistent psychosocial burden associated with living with HIV.

A considerable body of empirical research identified multiple psychosocial and contextual stressors that adversely affected psychological well-being among PLWHA. HIV-related stigma emerged as one of the most pervasive determinants. Both enacted and internalized stigma contributed to psychological distress, social withdrawal, diminished self-worth, and reduced engagement in healthcare services.[7] Person-centered studies further showed that individuals exposed to high levels of stigma experienced significantly poorer psychological well-being and health-related quality of life, particularly among sexual minorities and other socially marginalized groups.[8] These findings highlighted the cumulative and intersectional effects of stigma-related stress.

Depression and anxiety also remained highly prevalent among PLWHA across diverse sociocultural contexts. Population-based and clinical studies reported elevated rates of depressive symptoms, which were strongly associated with poor self-rated health, limited social support, unemployment, and substance use.[4,9,10] Psychological distress did not merely coexist with HIV infection but interacted dynamically with disease management. Previous studies indicated that untreated depression and anxiety reduced ART adherence, increased risk behaviors, and contributed to unfavorable clinical outcomes.[11,12]

Coping strategies represented another critical pathway influencing psychological well-being. Based on stress–coping theory, coping is defined as cognitive and behavioral efforts used to manage demands perceived as exceeding personal resources.[6] Empirical evidence demonstrated that adaptive coping strategies such as problem solving, acceptance, and seeking social support were associated with higher psychological well being and improved ART adherence. Conversely, maladaptive coping strategies including avoidance and denial were associated with emotional distress and treatment non adherence.[13,11] These findings suggested that coping functioned as a modifiable mechanism affecting both mental health and treatment outcomes.

Social and contextual factors further shaped psychological well-being among PLWHA. Social support functioned as a protective factor that buffered stress and reduced depressive symptoms.[4,10] Conversely, substance use, particularly alcohol and sedatives, was associated with increased psychological distress and poorer treatment outcomes.[9] Structural determinants such as poverty, unemployment, and limited access to mental health services exacerbated vulnerabilities, especially in low- and middle-income settings.[5]

Despite the expanding body of literature, several conceptual and methodological gaps remained. Many studies examined determinants in isolation without addressing their interrelationships or broader contextual influences.[7] Prior reviews frequently focused on psychiatric disorders or clinical endpoints rather than psychological well-being as a positive and holistic construct.[12] Intervention studies reported promising but heterogeneous findings, limiting generalizability.[14]

Therefore, a comprehensive synthesis integrating psychosocial and contextual determinants of psychological well-being among PLWHA is needed. The present systematic review aims to synthesize and critically evaluate empirical evidence regarding psychosocial and contextual factors associated with psychological well-being among people living with HIV/AIDS. This review addresses the following research questions: (1) What psychosocial and contextual factors are associated with psychological well-being among PLWHA? (2) How do HIV-related stigma, mental health conditions, coping strategies, and social support interact to influence psychological well-being? and (3) What implications do these findings have for developing effective psychosocial interventions and health policies in HIV care?

This review is guided by an integrative conceptual framework that combines stress–coping theory, minority stress theory, and multidimensional models of psychological well-being. Within this framework, psychological

well-being is conceptualized as a dynamic outcome shaped by the interaction between HIV-related stressors (e.g., stigma and illness burden), individual-level processes (e.g., coping strategies and mental health status), and social-contextual resources (e.g., social support and socioeconomic conditions). By integrating individual, social, and structural dimensions, this framework provides a comprehensive lens for synthesizing evidence and identifying leverage points for intervention.

Methods

Study Design

This study employed a systematic literature review design to synthesize empirical evidence on psychological well-being among people living with HIV/AIDS (PLWHA). The review followed established methodological guidelines for systematic reviews, including the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA 2020), the AMSTAR 2 framework, and recommendations from the Cochrane Handbook for Systematic Reviews of Interventions.[16-18] A structured and transparent approach was adopted to ensure methodological rigor, reproducibility, and reliability of the findings.

Search Strategy

A comprehensive literature search was conducted across multiple international electronic databases, including PubMed, Scopus, Web of Science, and the Cochrane Library. The search strategy combined controlled vocabulary such as MeSH terms and free text keywords related to psychological well-being, HIV/AIDS, stigma, coping strategies, mental health, and quality of life. Boolean operators AND and OR were used to optimize search sensitivity and specificity. Reference lists of included articles and relevant reviews were also screened to identify additional eligible studies.

Eligibility Criteria

Studies were selected based on predefined inclusion and exclusion criteria. Eligible studies included peer reviewed empirical research, whether quantitative, qualitative, or mixed methods, that examined psychological well-being or closely related constructs among adult PLWHA. Only studies published in English between 2010 and 2025 were included to ensure contemporary relevance. Exclusion criteria encompassed studies focusing exclusively on pediatric populations, biomedical outcomes without psychosocial measures, conference abstracts, editorials, and non-peer reviewed publications.

Study Selection Process

All identified records were imported into reference management software, and duplicates were removed. Two independent reviewers screened titles and abstracts for relevance, followed by full text screening of potentially eligible studies. Discrepancies between reviewers were resolved through discussion and consensus. The study selection process was documented using a PRISMA flow diagram to enhance transparency and reproducibility.[16]

Data Extraction

Data extraction was performed using a standardized data extraction form developed a priori. Extracted information included study characteristics such as author, year, and country; study design; sample size; participant characteristics; measures of psychological well-being; key psychosocial determinants; and main findings. Data extraction was conducted independently by two reviewers to minimize error and bias.

Quality Assessment and Risk of Bias

The methodological quality of the included studies was assessed using appropriate appraisal tools depending on study design. Observational studies were evaluated using CASP based criteria, whereas intervention studies were appraised with reference to Cochrane risk of bias principles.[18] The overall methodological quality of the review was evaluated using AMSTAR 2 to ensure adherence to best practice standards.[17] Quality assessment results were considered during interpretation of findings but were not used as exclusion criteria.

Data Synthesis

Given the heterogeneity in study designs, outcome measures, and analytical approaches, a narrative thematic synthesis was conducted. Findings were grouped into key thematic domains including stigma, mental health conditions, coping strategies, social support, and contextual factors influencing psychological well-being. Where appropriate, conceptual frameworks were applied to integrate findings and highlight interrelationships among determinants. A meta-analysis was not performed due to variability in outcome measures and insufficient homogeneity across studies.

Ethical Considerations

As this study involved the synthesis of previously published data, formal ethical approval was not required. Ethical standards were maintained by accurately representing original findings, appropriately citing all sources, and adhering to principles of academic integrity.

Methodological Stages and Sub-Stages of the Systematic Review

Stage 1: Protocol Development and Review Design

The systematic review was designed following internationally recognized methodological standards to ensure transparency and reproducibility. This stage involved defining the review objectives, formulating research questions using a structured framework such as Population Exposure Outcome, and determining the scope of the review. Key sub stages included identification of eligibility criteria, selection of databases, and specification of outcome measures related to psychological well-being. Although protocol registration was recommended by PRISMA and AMSTAR 2, this review adhered to predefined procedures documented prior to study selection to minimize selective reporting.[16,17]

Stage 2: Literature Search Strategy

A comprehensive and systematic search strategy was developed to identify relevant studies. Sub stages included selection of electronic databases, construction of search strings using controlled vocabulary and free text terms, and application of Boolean operators to optimize retrieval. Searches were complemented by manual screening of reference lists from eligible studies. This multi-step approach followed Cochrane recommendations for maximizing sensitivity while maintaining specificity.[18]

Stage 3: Study Screening and Selection

Study selection was conducted through a structured two-phase screening process. In the first sub stage, titles and abstracts were independently screened by two reviewers to exclude clearly irrelevant studies. In the second sub stage, full text articles were assessed against predefined inclusion and exclusion criteria. Disagreements were resolved through discussion to achieve consensus. The entire screening process was documented using a PRISMA flow diagram to enhance transparency and reproducibility.[16]

Stage 4: Data Extraction and Management

Data extraction followed standardized procedures to ensure consistency and accuracy. Sub stages included development of a data extraction form, pilot testing of the form, and independent data extraction by two reviewers. Extracted data encompassed study characteristics, participant demographics, measures of psychological well-being, psychosocial determinants, and key findings. Any discrepancies in extracted data were resolved through reviewer consensus in accordance with Cochrane best practices.[18]

Stage 5: Data Synthesis and Interpretation

Data synthesis was conducted using a narrative thematic approach due to heterogeneity in study designs and outcome measures. Sub stages included grouping findings into thematic domains, comparing results across studies, and integrating evidence within a conceptual framework. Sources of heterogeneity and inconsistencies

were explicitly examined. This approach followed PRISMA and Cochrane guidance for synthesizing complex and diverse evidence bases.[16,18]

Stage 6: Reporting and Transparency

The final stage focused on transparent reporting of methods and findings. Sub stages included adherence to PRISMA reporting standards, clear documentation of methodological decisions, and critical reflection on study limitations. This stage ensured that the review could be appraised, replicated, and utilized by researchers, clinicians, and policymakers.[16]

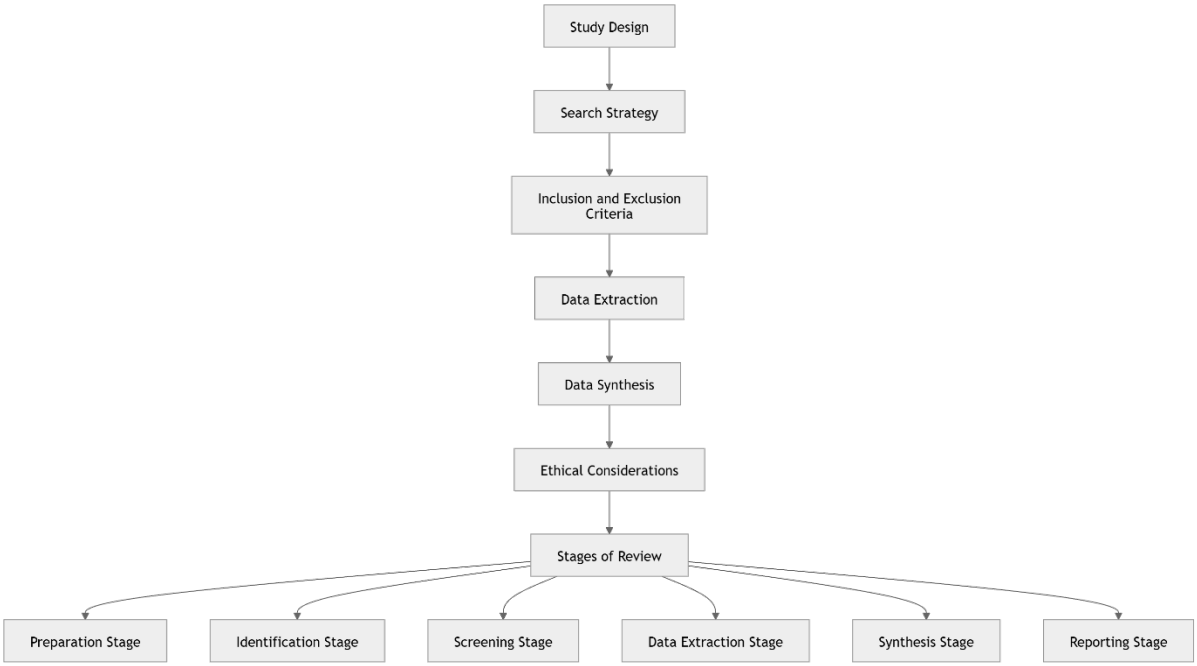

Figure 1. Stages of the Review Process

Results

Overview of Included Studies

The systematic review included ten studies focusing on psychological well-being among people living with HIV/AIDS across various populations and contexts. Table 1 summarized the key characteristics of these studies, including methodologies, sample sizes, populations, and principal findings.

Table 1. Synthesized Data Insights from the Ten Included Studies

Thematic Domain	Key Findings	Supporting Evidence (Studies)	Implications
Overall psychological burden and well-being outcomes	Across diverse settings, PLWH experience a high psychological burden, characterized by elevated depression and anxiety and reduced psychological well-being, even in the ART era.	China population-based study (N=772): anxiety 49.0%, depression 73.1; Nepal QoL study (N=246); Uganda counselling study (N=265).	Biomedical treatment alone is insufficient; mental health must be a core component of HIV care.

Thematic Domain	Key Findings	Supporting Evidence (Studies)	Implications
HIV-related stigma as a central determinant	Stigma shows a consistent, moderate-to-strong negative association with psychological well-being, with significant contextual heterogeneity.	Systematic review & meta-analysis (64 studies; N=25,294; pooled r = −0.31); latent profile analysis (N=540).	Stigma reduction should be a primary intervention target, tailored to social context.
Heterogeneity of experiences among PLWH	PLWH are not a homogeneous group; distinct subgroups experience varying combinations of stigma exposure and psychological well-being.	Person-centered stigma–well-being profiles (N=540).	Person-centered and intersectional approaches are required in research and interventions.
Social support and behavioral correlates	Social support, alcohol use, and self-rated health are repeatedly linked to psychological outcomes, influencing both distress and well-being dimensions.	China population-based study; Nepal QoL study; Nigeria substance use study.	Interventions must address behavioral and social determinants alongside psychological care.
Coping strategies and ART adherence	Adaptive coping is positively associated with ART adherence, while ineffective coping co-occurs with non-adherence.	Coping–adherence review ($p = 0.013$); ART adherence SLR (71 studies, 2019–2023).	Strengthening coping capacity may indirectly improve treatment outcomes.
Psychosocial intervention effectiveness	Group-based psychosocial interventions demonstrate modest but positive effects on depression and psychological well-being.	Cochrane review (16 trials; 2,520 participants; CBT-based SMD ≈ −0.26).	Interventions are beneficial but require optimization for scalability and durability.
Context-specific intervention evidence	Local interventions such as positive psychotherapy and counselling show significant improvements in psychological well-being and depressive symptoms.	Papua quasi-experimental study ($p < 0.001$); Uganda counselling study.	Cultural adaptation and local delivery models are promising but need rigorous testing.
Contradictions and tensions	Despite positive intervention effects, population-level studies continue to show high prevalence of depression and anxiety.	China population-based study vs intervention trials.	Indicates gaps in coverage, intensity, sustainability, and system integration.
Outcome measurement heterogeneity	Studies variably operationalize outcomes as distress, psychological well-being, or quality of life, contributing to heterogeneity.	Stigma meta-analysis; QoL and well-being studies.	Standardized outcome frameworks are urgently needed.

Thematic Domain	Key Findings	Supporting Evidence (Studies)	Implications
Research gaps and limitations	Evidence is dominated by cross-sectional and quasi-experimental designs, with limited causal and longitudinal data.	Papua, Nepal, Nigeria, and adherence SLRs.	Future research must prioritize longitudinal, mechanistic, and implementation-focused designs.

Overview of Included Evidence

The studies included in this systematic review comprised population based cross sectional studies, facility based observational research, quasi experimental intervention studies, and systematic reviews and meta-analyses. Collectively, they represented diverse geographical contexts including Asia, Africa, and the Pacific region and addressed psychological well-being among people living with HIV/AIDS from psychosocial, behavioral, and structural perspectives. Despite heterogeneity in study design and outcome measurement, several consistent thematic patterns emerged.

Theme 1: HIV-Related Stigma as a Central Determinant of Psychological Well-Being

Across the reviewed literature, HIV related stigma emerged as a dominant determinant of psychological well-being. A large scale systematic review and meta-analysis demonstrated a moderate but robust negative association between stigma and psychological well-being, confirming stigma as a key psychosocial stressor that undermined emotional functioning, self-worth, and social integration.[7] Person centered analyses further revealed heterogeneity in stigma experiences, with specific subgroups, particularly sexual minorities, exhibiting compounded stigma exposure and poorer psychological outcomes.[8,9] These findings supported minority stress theory.

Theme 2: Psychological Distress and Mental Health Burden in the ART Era

Despite advances in antiretroviral therapy, high levels of psychological distress persisted among people living with HIV/AIDS. Population based evidence from China reported a high prevalence of anxiety and depressive symptoms, indicating that biomedical control of HIV did not equate to psychological recovery.[4] Similar patterns were observed among older adults in Uganda, where depression remained prevalent even among individuals engaged in care. These findings indicated that psychological well-being remained insufficiently integrated within routine HIV services.

Theme 3: Protective Role of Psychosocial Resources

Social support, counseling, and adaptive coping strategies consistently functioned as protective factors across studies. Higher perceived social support was associated with better psychological outcomes in population level studies, while counseling exposure was linked to lower depressive symptoms among older people living with HIV/AIDS. Coping strategies also influenced treatment engagement, with adaptive coping positively associated with antiretroviral adherence. These findings were consistent with stress coping theory, which emphasized the mediating role of cognitive and behavioral responses to stress.

Theme 4: Effectiveness and Limitations of Psychosocial Interventions

Intervention studies provided mixed but informative evidence. Group based psychosocial interventions, including cognitive behavioral therapy and positive psychotherapy, demonstrated improvements in psychological outcomes, although effect sizes were generally small and certainty levels varied.[12,14] A Cochrane review reported modest reductions in depressive symptoms, whereas a quasi-experimental study in Papua documented significant improvements in psychological well-being following culturally adapted positive psychotherapy. These findings suggested potential effectiveness but also highlighted variability related to intervention design, outcome selection, and methodological rigor.

Theme 5: Behavioral and Contextual Pathways Linking Well-Being and HIV Outcomes

Several studies emphasized the bidirectional relationship between psychological well-being and behavioral outcomes such as treatment adherence and substance use. Gender differentiated patterns of alcohol and substance use were associated with psychological distress, indicating that behavioral health risks exacerbated mental health vulnerabilities. Reviews of adherence determinants further reinforced that psychological well-being, coping capacity, and social support were integral to sustained engagement in HIV care.[11,13]

Discussion

Taken together, the findings supported a multilevel conceptualization of psychological well-being among people living with HIV/AIDS. HIV related stigma operated as an upstream structural stressor that undermined emotional functioning and social integration, as consistently demonstrated in systematic review and meta analytic evidence.[7] Person centered analyses further confirmed that stigma exposure varied across subgroups, particularly among sexual minorities, consistent with minority stress theory.[8,9] Psychological distress, including depression and anxiety, represented an intermediate outcome that persisted despite advances in antiretroviral therapy, reinforcing the notion that biomedical control alone did not ensure psychological recovery.[4,10]

Coping strategies and social support functioned as key buffering mechanisms within this multilevel framework. Drawing on stress coping theory, adaptive coping processes mitigated the psychological impact of stigma and illness burden, whereas maladaptive coping strategies were associated with emotional distress and treatment non adherence.[6,13] Empirical evidence indicated that higher perceived social support was associated with improved psychological outcomes and lower depressive symptoms among people living with HIV/AIDS.[4,10] These findings underscored the importance of psychosocial resources in promoting resilience and sustained engagement in HIV care.

Although the direction of associations across studies was largely consistent, variation in outcome measurement created challenges for direct comparison. Some studies operationalized outcomes as psychological distress, whereas others adopted multidimensional psychological well-being or quality of life frameworks.[7,14] This conceptual heterogeneity likely contributed to variability in reported effect sizes and highlighted the need for standardized outcome measures in HIV mental health research.

Intervention studies demonstrated promising but modest effects. Psychosocial group interventions, including cognitive behavioral therapy and culturally adapted positive psychotherapy, were associated with improvements in depressive symptoms and psychological well-being.[12,14] However, heterogeneity in study design, duration, and measurement limited the generalizability of findings. Moreover, many intervention studies lacked long term follow up, which restricted conclusions regarding sustainability.[12]

Several methodological limitations warranted consideration. The predominance of cross-sectional designs limited causal inference regarding relationships between stigma, coping strategies, social support, and psychological well-being.[18] Longitudinal and mediation-based analyses remained limited in the existing literature. Additionally, marginalized populations, including sexual minorities and individuals in low resource settings, were underrepresented in rigorous intervention trials despite evidence of heightened vulnerability.[8,9]

Future research will need to prioritize longitudinal and theory driven designs to elucidate causal pathways linking stigma, coping mechanisms, social support, and psychological well-being. Standardization of psychological well-being measures will be essential to improve comparability and cumulative knowledge. From a practice perspective, the findings suggested that HIV care services will need to integrate routine mental health screening, stigma reduction strategies, and psychosocial interventions into standard treatment programs.[12,16]

This systematic review was subject to several methodological limitations that should be considered when interpreting its findings. The evidence base was dominated by observational studies, primarily cross sectional in nature, which constrained causal inference and limited conclusions regarding temporal relationships between psychosocial determinants and psychological well-being.[18] Variation in sample size and sampling strategies introduced potential selection bias and limited population level generalizability. Heterogeneity in outcome

measurement further complicated synthesis, as psychological well-being was operationalized using diverse instruments.[7,14]

The scope of this review was intentionally defined to maintain conceptual focus and analytical coherence. The synthesis centered on psychosocial and contextual determinants of psychological well-being among adult people living with HIV/AIDS, including HIV related stigma, mental health conditions, coping processes, social support, and structural factors such as socioeconomic conditions and access to care.[5] Pediatric and adolescent populations were excluded due to distinct developmental determinants, and biomedical treatment outcomes were considered outside the primary scope unless directly linked to psychological well-being.

Conclusions

This systematic review demonstrated that, despite substantial biomedical advances, psychological well-being remained an insufficiently addressed dimension of HIV care. HIV-related stigma consistently emerged as a central determinant that undermined well-being, while depression, anxiety, and reduced quality of life persisted even in the era of effective antiretroviral therapy. Viral suppression alone did not ensure holistic recovery.

Psychosocial resources such as social support, counseling, and adaptive coping played a protective role in mitigating distress and enhancing well-being. Psychosocial interventions showed promising but variable effects, with limitations related to methodological rigor and durability. Behavioral pathways, including treatment adherence and substance use, were closely intertwined with psychological well-being, underscoring the need for integrated models of care.

Overall, psychological well-being among people living with HIV/AIDS was shaped by structural, interpersonal, and individual factors. Integrating mental health and psychosocial services into routine HIV care was necessary to improve holistic and sustainable health outcomes.

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Declaration concerning generative AI and AI-augmented technologies in the compositional process

In the course of preparing this paper, the authors utilized ChatGPT to enhance readability and linguistic quality. Subsequent to utilizing this tool/service, the writers assessed and amended the information as necessary and assume complete accountability for the publication's content.

Declarations of competing interest

No potential competing interest was reported by the authors.

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