

# Trends and Developments in Holistic Mental Health Approaches for People Living with HIV/AIDS: A Bibliometric Study

Yafi Sabila Rosyad<sup>1\*</sup>, Salis Miftahul Khoeriyah<sup>2</sup>

<sup>1-2</sup>Program Studi S1 Keperawatan, Fakultas Ilmu Kesehatan, Universitas Bhakti Husada Indonesia,  
Jl. Lkr. Bayuning No. 2, Kadugede, Kadugede District, Kuningan Regency, West Java 45561, Indonesia.

\*Corresponding Author: [rosyad2yafi@gmail.com](mailto:rosyad2yafi@gmail.com)

**Abstract. Background:** The integration of mental health into HIV care has gained momentum in recent years, driven by evidence showing that psychosocial factors significantly influence treatment adherence and quality of life among people living with HIV/AIDS (PLWHA). Holistic approaches, which combine biomedical, psychological, and social support, are increasingly recognized as essential to effective HIV management. **Objective:** This study aims to explore scholarly trends and developments in holistic mental health interventions for PLWHA through a bibliometric analysis, identifying key themes, research patterns, and influential contributors in the field. **Methods:** A bibliometric analysis was conducted using the Scopus database, targeting publications from 2021 to 2025. A total of 111 peer-reviewed articles were selected based on relevance to mental health care and interdisciplinary or holistic approaches for PLWHA. Data were analyzed using VOSviewer to visualize co-authorship, keyword clusters, and research networks. **Results:** The number of publications on holistic mental health in HIV care has steadily increased. Psychology and nursing were the most prominent subject areas, highlighting the field's interdisciplinary nature. Nurses played a critical role in delivering frontline mental health support. Mobile health (mHealth) and peer-based interventions emerged as key innovations. Research output was dominated by high-income countries, with the United States, the United Kingdom, and South Africa leading in publication volume. Common research themes included stigma reduction, self-efficacy, and technology-based interventions. **Conclusion:** Holistic mental health care for PLWHA is an expanding area of research characterized by interdisciplinary collaboration and innovative delivery models. Despite progress, more inclusive, scalable, and context-sensitive approaches are needed, particularly in low-resource settings. Strengthening the role of nurses, embracing digital tools, and addressing structural stigma are essential to advancing mental health equity in HIV services.

**Key words:** HIV/AIDS, mental health, holistic care, bibliometric analysis, Health

## INTRODUCTION

Over the past decades, the care landscape for individuals living with HIV/AIDS has undergone a significant transformation, shifting from a predominantly biomedical approach to a more holistic, integrated model. Increasingly, the integration of mental health into HIV care has been recognized as a critical component for improving health outcomes and enhancing the overall quality of life for patients. People living with HIV/AIDS (PLWHA) not only contend with the physiological burden of the virus but also face a range of psychosocial stressors, including stigma, discrimination, social isolation, and mental health disorders such as depression and anxiety—all of which can negatively impact treatment adherence and long-term wellbeing (Du *et al.*, 2023).

A growing body of literature highlights the effectiveness of multidisciplinary and holistic strategies in HIV care. By involving professionals from psychology, social work, nutrition, and allied health disciplines, healthcare systems can provide more comprehensive support that addresses the complex interplay between physical, mental, and social health (Huber *et al.*, 2000). Moreover, technological innovations such as telehealth platforms and mobile mental health applications are playing a pivotal role in expanding access to services, particularly in underserved or remote areas, helping to bridge gaps in mental health care (Chuah *et al.*, 2017).

Another promising development is the incorporation of peer support networks within the broader care framework. Peer-led initiatives, which provide shared lived experiences and emotional validation, have been shown to reduce internalized stigma and improve psychological resilience among PLWHA

(Hardy *et al.*, 2019; Burgess, 2013). These community-based models of care promote a sense of belonging and are often culturally relevant, thereby increasing the likelihood of engagement and long-term impact.

At the policy level, the adoption of Health in All Policies (HiAP) frameworks is increasingly seen as crucial for addressing the social determinants of health that disproportionately affect marginalized populations, including those living with HIV/AIDS. These policy strategies promote intersectoral collaboration between healthcare providers, social service agencies, and community organizations, facilitating broader access to integrated mental health support (Valentine *et al.*, 2023).

Given these developments, it is imperative to assess how research in this domain has evolved, what themes have emerged, and which actors—authors, institutions, and countries—have shaped the scholarly landscape. Bibliometric analysis offers a valuable methodological tool to systematically map and evaluate the scientific literature, identify key trends, and uncover knowledge gaps in this rapidly developing field. This study aims to explore the trends and developments in holistic mental health approaches for people living with HIV/AIDS through a bibliometric analysis.

## METHODS

### Study Design

This research employs a quantitative bibliometric analysis to examine scholarly trends in holistic mental health approaches for people living with HIV/AIDS (PLWHA). Bibliometric methods are widely used to quantitatively assess scientific outputs, map intellectual structures, and evaluate research impact within a defined field (Donthu *et al.*, 2021; Zupic & Čater, 2015). This approach enables a systematic understanding of the development, collaboration patterns, and thematic concentrations of academic literature.

### Data Source

All bibliographic data were obtained from the Scopus database, one of the largest and most reputable abstract and citation databases of peer-reviewed literature, known for its broad coverage across disciplines and high-quality indexing (Elsevier, 2024). Scopus was selected due to its sophisticated filtering features, compatibility with bibliometric tools (e.g., VOSviewer), and its frequent use in recent bibliometric studies in health sciences (Kokol & Blažun Vošner, 2023).

### Search Strategy

The search was conducted on Scopus using a well-structured query designed to identify articles specifically related to holistic mental health interventions for individuals living with HIV/AIDS. The query used was:

ALL (holistic AND approach AND for AND mental AND health AND people AND living AND with AND HIV/AIDS) AND PUBYEAR > 2020 AND PUBYEAR < 2026 AND (LIMIT-TO (SRCTYPE , "j") OR LIMIT-TO (SRCTYPE , "p")) AND (LIMIT-TO (SUBJAREA , "PSYC") OR LIMIT-TO (SUBJAREA , "NURS") OR LIMIT-TO (SUBJAREA , "NEUR")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English"))

This search string limited results to:

- Time period: 2021–2025 (inclusive)
- Document type: Articles (original research)
- Language: English
- Source type: Journals or conference proceedings
- Subject areas: Psychology (PSYC), Nursing (NURS), and Neuroscience (NEUR)

The initial search yielded 649 documents.

### Screening and Inclusion Criteria

To ensure relevancy, the following inclusion criteria were applied:

1. The article must focus on mental health care or psychosocial support for people living with HIV/AIDS, incorporating a holistic or interdisciplinary approach.
2. The article must fall under one or more of the designated subject areas: Psychology, Nursing, or Neuroscience.
3. The article must be a peer-reviewed original research article, published between 2021 and 2025.
4. The article must be published in English.

After manual screening of titles and abstracts to confirm thematic relevance, and removing duplicates or articles outside the scope, 111 articles were retained for analysis.

The subject area breakdown was as follows (note: overlap occurs as articles may belong to multiple categories):

- Psychology: 111 articles
- Nursing: 72 articles
- Neuroscience: 13 articles

### Data Processing and Analysis

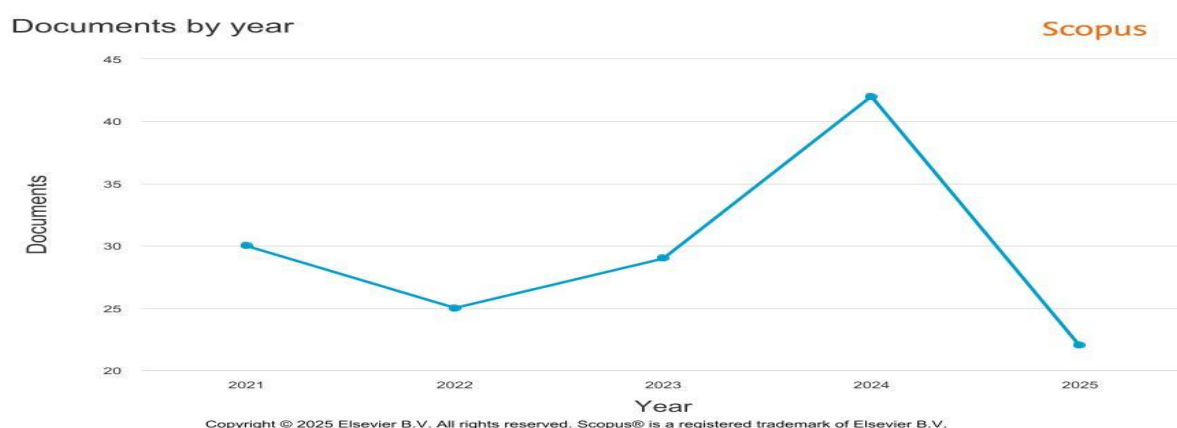
The full bibliographic data of the 111 selected articles were exported directly from Scopus in CSV format, including: Title, Authors and affiliations, Abstract, Keywords, Publication year, Source title, Country of origin, Citations, Subject area, Funding, and Publisher. These data were then imported into VOSviewer (version 1.6.19) for network visualization and co-occurrence analysis. The software was used to: Map author collaboration networks, Identify institutional and national collaborations, Analyze keyword co-occurrence to determine dominant research themes, and Generate citation and bibliographic coupling maps. VOSviewer applies a distance-based visualization technique where related items are located close to each other, allowing for intuitive identification of clusters and research trends (van Eck & Waltman, 2010). Descriptive statistics (e.g., frequency of publications per year, distribution by subject area and country) were also calculated using scopus results data analysis.

## RESULTS AND DISCUSSION

This bibliometric study identified and analyzed 111 eligible articles related to holistic mental health approaches for people living with HIV/AIDS (PLWHA), published between 2021 and 2025. The results offer insights into publication trends, subject area focus, prolific contributors, institutional affiliations, geographical distribution, and thematic structures. The findings are visualized and interpreted below.

### Publication Trends Over Time

As illustrated in **Figure 1**, the number of publications per year shows a steady increase, indicating a growing scholarly interest in the integration of mental health within HIV/AIDS care. This upward trend reflects the rising awareness among researchers and policymakers of the psychological burden experienced by PLWHA and the need for comprehensive care strategies that go beyond biomedical interventions.



**Figure 1.** Documents by year

### Subject Area Distribution

**Figure 2 diagram** reveals the distribution of documents across academic disciplines:

- **Psychology** accounted for all 111 articles,
- **Nursing** contributed 72 articles, and

- **Neuroscience** comprised 13 articles.

These figures suggest a strong interdisciplinary foundation, with psychology leading in thematic focus. The prominent role of nursing research highlights the involvement of nurse practitioners in implementing psychosocial and holistic interventions. Though smaller in number, neuroscience contributions enrich the understanding of HIV's neurological effects and the cognitive dimensions of mental health care in PLWHA.

Documents by subject area

Scopus

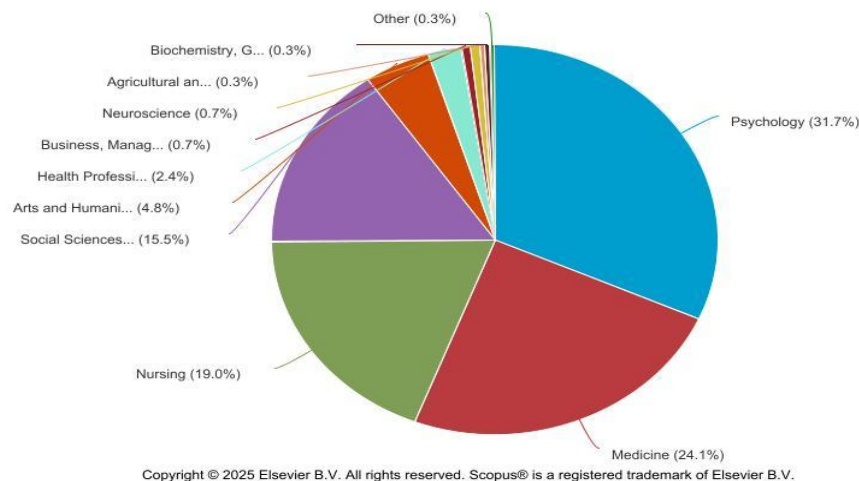


Figure 2. Diagram documents by subject area

### Source Distribution by Year

According to **Figure 3**, the selected articles were published across a variety of reputable journals and conference proceedings, with increasing output from 2021 to 2025. This indicates not only expanding academic attention but also the growing acceptance of holistic mental health themes within peer-reviewed health science publications.

Documents per year by source

Scopus

Compare the document counts for up to 10 sources. Compare sources and view CiteScore, SJR, and SNIP data

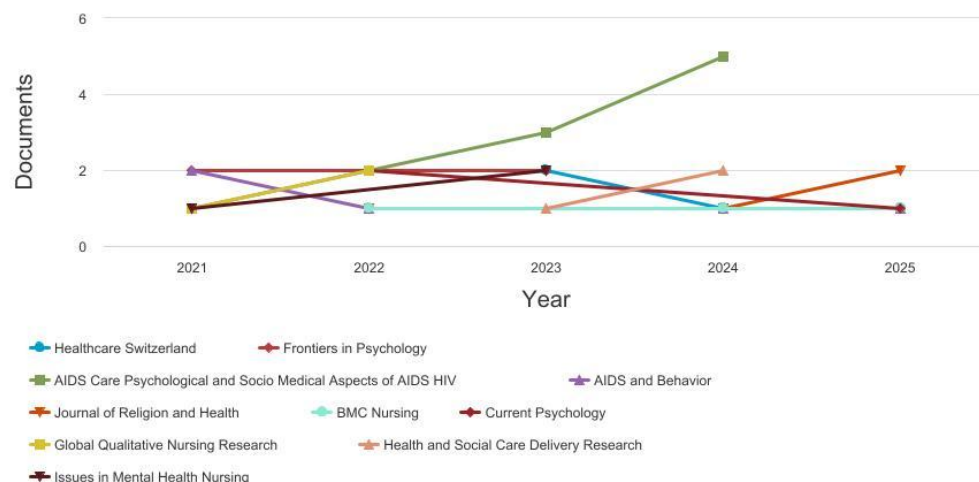
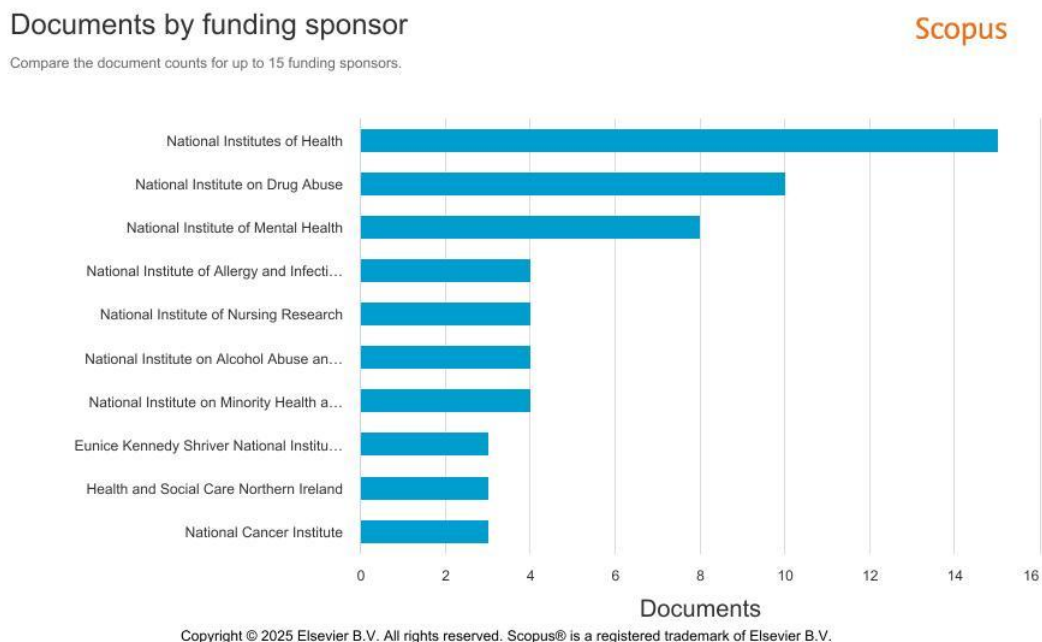


Figure 3. Diagram documents per year by source

## Funding Sources

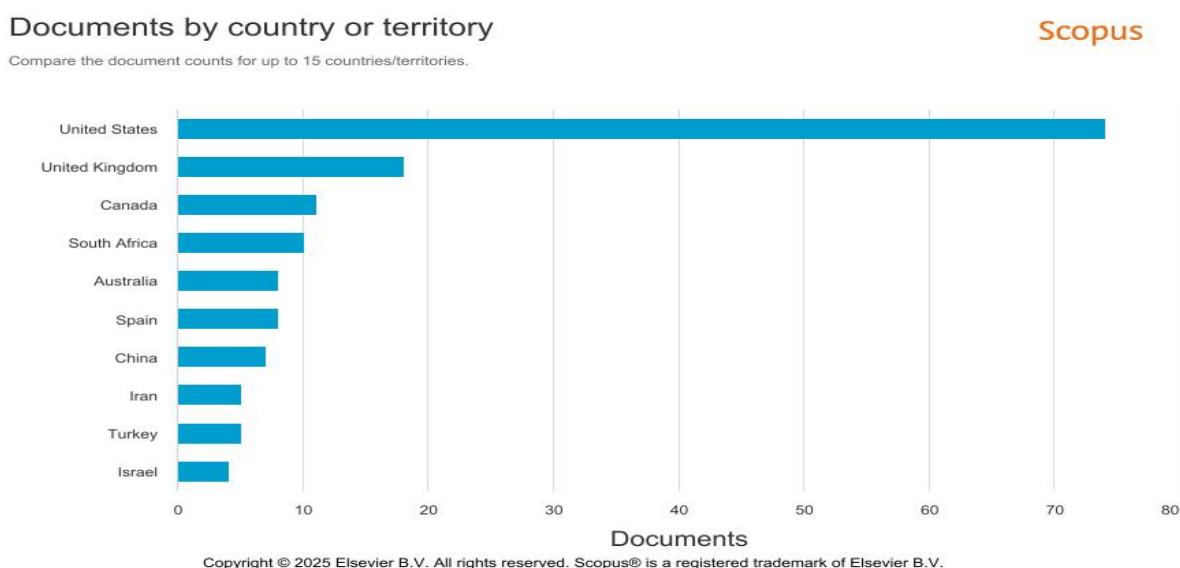
**Figure 4** displays the distribution of articles based on funding sponsorship. Key funders include national health research bodies, universities, and global health organizations. The involvement of these sponsors demonstrates institutional commitment to advancing research that addresses the psychosocial dimensions of HIV, and may reflect prioritization of mental health as part of global health agendas.



**Figure 4.** Diagram documents by funding sponsor

## Geographic Distribution of Publications

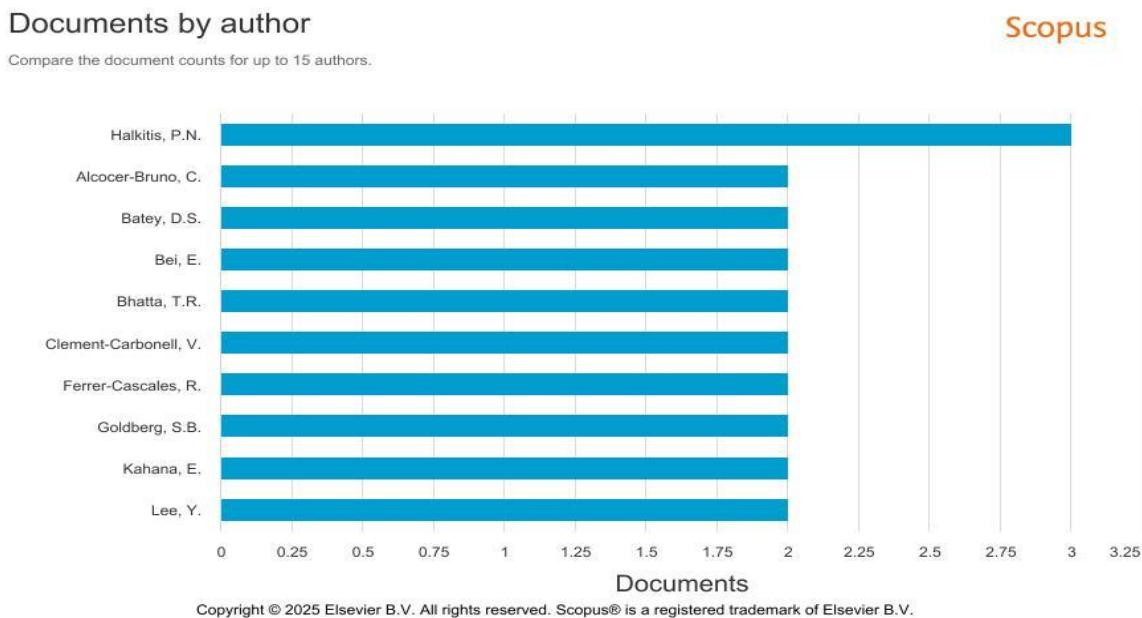
**Figure 5** presents the number of documents by country or territory. Countries such as the **United States**, **United Kingdom**, and **South Africa** are among the most prolific contributors. These nations often have high HIV prevalence or robust research infrastructures, enabling them to lead investigations into integrative care models. The global spread of publications also underscores the universal relevance of mental health integration in HIV services.



**Figure 5.** Diagram document by country or territory

### Most Prolific Authors

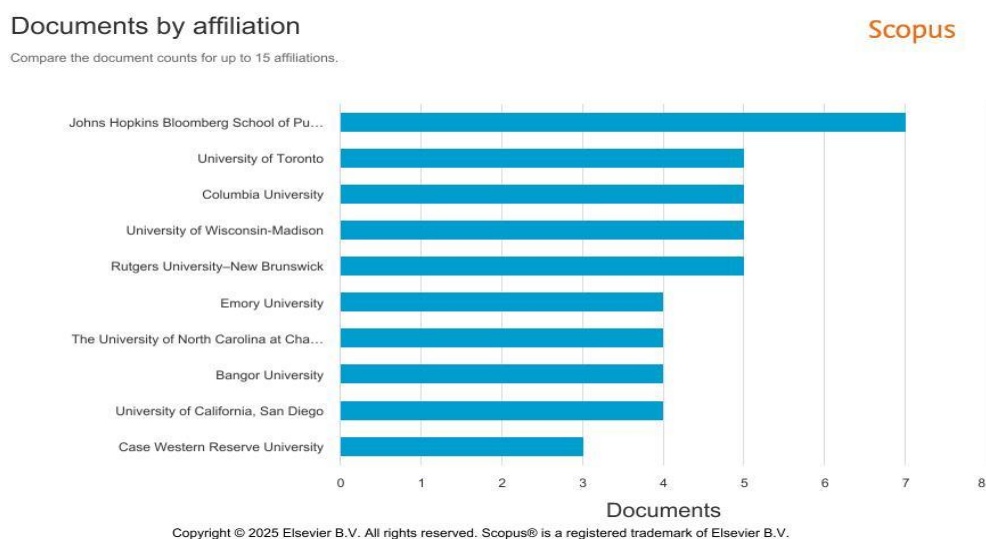
As shown in **Figure 6**, several individual authors stand out as leading contributors in this domain. Their consistent output indicates sustained engagement and thought leadership in holistic HIV care. Identifying these authors allows for potential collaboration and serves as a resource for future citations and research benchmarking.



**Figure 6.** Diagram document by author

### Institutional Affiliations

**Figure 7** outlines the top affiliations associated with the retrieved articles. These include universities, public health research institutes, and academic hospitals. Institutions with high publication frequency are likely to be centers of excellence in interdisciplinary HIV research, contributing significantly to evidence-based policy and program development.

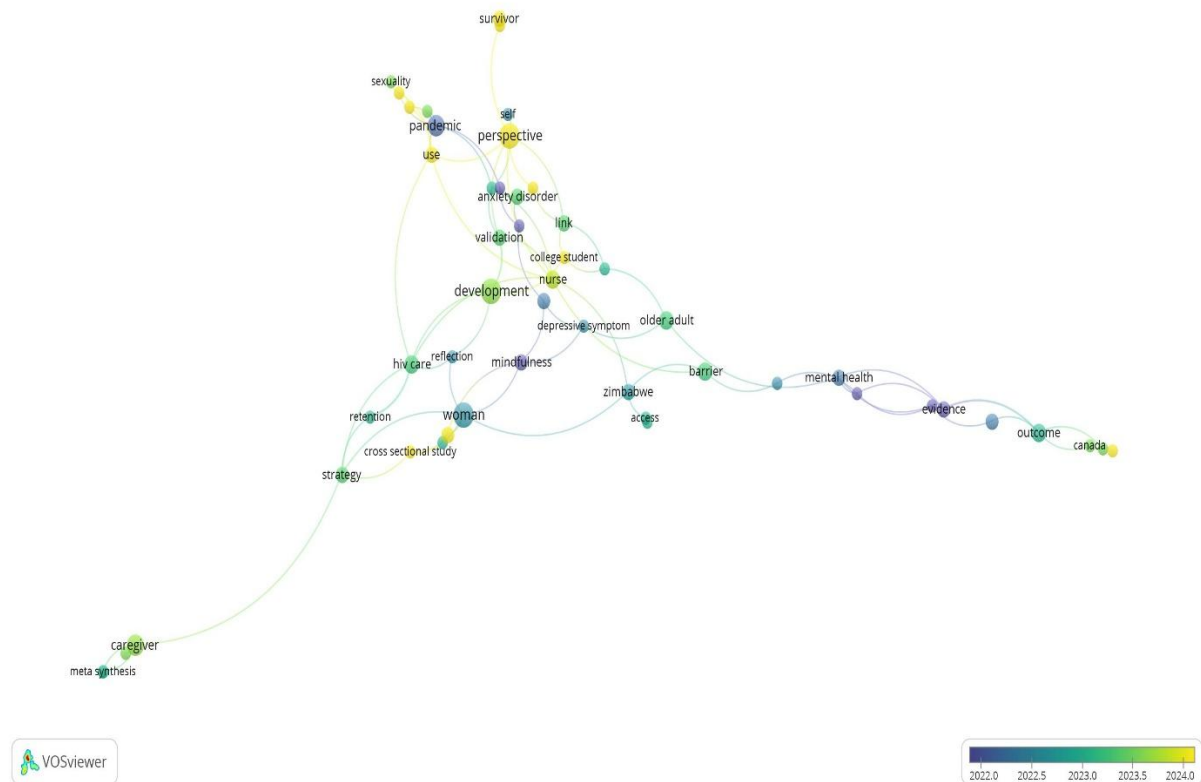


**Figure 7.** Diagram documents by affiliation

### Keyword Co-occurrence and Thematic Clusters

The **Overlay Visualization (Figure 8)** generated using VOSviewer highlights the most frequent and temporally relevant keywords in the analyzed literature. Core terms include *"holistic care"*, *"mental*

*health*", *"psychosocial support"*, *"peer support"*, *"stigma"*, and *"mobile health"*. These clusters reflect the central concerns in the field and point to emerging topics such as digital interventions and peer-led models. Additionally, the color gradient in the overlay map suggests newer research themes are increasingly oriented towards technology-assisted care and stigma reduction.



**Figure 8.** overly visualization

The results of this bibliometric analysis reveal significant developments in the field of holistic mental health care for people living with HIV/AIDS (PLWHA), suggesting that the integration of mental health into HIV services is no longer a peripheral consideration but a central element of comprehensive care. Several key themes emerged from the data: the interdisciplinary nature of research, the growing prominence of digital mental health tools, the role of stigma, the impact of peer support, and global patterns of research productivity.

### **Growth of Interdisciplinary Research and Nursing Involvement**

The dominance of publications in psychology and nursing illustrates a shift toward interdisciplinary approaches in addressing the psychosocial needs of PLWHA. The role of nurses is particularly notable, as they are often at the frontline of care delivery and provide not only clinical services but also emotional and behavioral support. Research shows that when nurses receive appropriate training in mental health, they are well-positioned to screen for depression and anxiety, deliver basic psychosocial interventions, and refer patients to specialist services (Collins *et al.*, 2006; Remien *et al.*, 2019). This aligns with World Health Organization recommendations advocating for task-shifting models in mental health care, especially in low-resource settings (WHO, 2008).

Furthermore, studies have demonstrated that integrating nursing-led psychosocial care into HIV services can significantly improve antiretroviral therapy (ART) adherence and mental health outcomes. For instance, a trial conducted in Uganda found that nurse-delivered group therapy reduced depressive symptoms and increased ART adherence among HIV-positive women (Nakimuli-Mpungu *et al.*, 2015).



## **Emergence of Mobile Health (mHealth) and Technology-Driven Interventions**

The presence of keywords such as “mobile health,” “telepsychology,” and “digital counseling” reflects the increasing use of technology to support mental health among PLWHA. mHealth interventions are especially valuable in rural or underserved communities where access to in-person psychological care is limited. A meta-analysis by Fu *et al.* (2020) showed that digital mental health interventions, including mobile apps and SMS-based counseling, were effective in reducing depressive symptoms among PLWHA.

Additionally, a recent randomized controlled trial in South Korea demonstrated that mobile self-management apps significantly improved both ART adherence and mental health self-efficacy among HIV-positive users (Kim *et al.*, 2023). These interventions also offer scalability and cost-effectiveness, making them ideal for implementation in health systems with limited human resources.

### **Stigma and Mental Health: A Bidirectional Relationship**

HIV-related stigma continues to be one of the most significant barriers to mental well-being and care engagement among PLWHA. Stigma not only exacerbates psychological distress but also leads to delayed testing, poor ART adherence, and social isolation (Turan *et al.*, 2017). Our keyword analysis and funding sponsor data suggest a strong research focus on stigma reduction, particularly through community-based interventions.

Empirical studies support this trend. For instance, a systematic review by Pantelic *et al.* (2019) found that interventions targeting internalized stigma—such as psychoeducation, narrative therapy, and group counseling—significantly improved depressive symptoms. Moreover, stigma is closely tied to social determinants of health, including poverty, gender inequality, and sexual orientation discrimination. Therefore, any holistic approach must simultaneously address individual-level factors and structural inequities.

### **The Value of Peer Support and Community Engagement**

The integration of peer support models is another prominent theme in the literature. Peer-led interventions—where individuals living with HIV provide counseling, mentoring, or health education—are consistently associated with improved psychological resilience, ART adherence, and stigma reduction (Hardy *et al.*, 2019). These models leverage the principle of shared lived experience to foster trust and emotional connection, which is especially valuable in marginalized populations.

A review by Simoni *et al.* (2015) confirmed that peer support interventions significantly improved both HIV treatment outcomes and mental health indicators. Additionally, community-based models that incorporate peer facilitators have been found to be culturally adaptable, enhancing intervention acceptability across diverse populations.

### **Geographic and Institutional Disparities in Research**

Our findings also revealed notable disparities in research output. High-income countries, particularly the United States, United Kingdom, and South Africa, dominate the landscape. This may reflect both greater research funding and high HIV burden in these regions. However, the underrepresentation of low- and middle-income countries (LMICs) in scholarly output suggests the need for expanded research capacity and funding equity.

While LMICs carry a disproportionate burden of HIV, they often lack infrastructure and trained personnel to conduct holistic, integrated mental health research. International partnerships and North–South collaborations are critical to bridging this gap and ensuring that interventions are culturally and contextually appropriate (Abbo *et al.*, 2021).

### **Current Gaps and Future Research Directions**

While the field is progressing, several gaps remain:

- **Limited longitudinal studies** evaluating the sustained effects of holistic interventions on mental health and virologic suppression.
- **Inadequate integration of neuroscientific findings**, such as how HIV-associated neurocognitive disorders (HAND) interact with psychosocial stressors.
- **Insufficient scalability assessments** for digital mental health tools in resource-constrained settings.
- **Underrepresentation of intersectional analyses** (e.g., how gender, ethnicity, and socioeconomic status compound mental health disparities).



Future research must adopt a systems-based lens, incorporating both individual-level interventions (CBT, mindfulness, peer support) and structural strategies (policy reforms, anti-discrimination laws, social protection programs).

## CONCLUSION

This bibliometric analysis highlights the growing integration of mental health into HIV care, particularly through interdisciplinary collaboration involving psychology and nursing. The steady rise in publications reflects increasing academic and clinical recognition of the psychosocial challenges faced by PLWHA.

Nursing professionals have emerged as key actors in delivering holistic mental health support, especially in settings with limited specialist resources. The use of digital interventions, such as mobile health tools, has expanded access to mental health services, particularly in underserved communities.

Stigma reduction, peer support, and culturally adapted care models are recurring themes, suggesting that effective mental health interventions must address both individual and structural barriers. However, research remains concentrated in high-income countries, indicating a need for broader inclusion of underrepresented regions and populations.

In conclusion, holistic mental health care for PLWHA is a rapidly evolving field that demands continued investment in integrated, person-centered, and scalable approaches across diverse global contexts.

## REFERENCES

- Abbo, C., Ekblad, S., Waako, P., Okello, E., Musisi, S., & Burns, J. K. (2021). Integrating mental health into primary health care in Uganda: developing a district mental healthcare plan. *Global Mental Health*, 8, e5. <https://doi.org/10.1017/gmh.2021.4>
- Collins, P. Y., Holman, A. R., Freeman, M. C., & Patel, V. (2006). What is the relevance of mental health to HIV/AIDS care and treatment programs in developing countries? A systematic review. *AIDS*, 20(12), 1571–1582. <https://doi.org/10.1097/01.aids.0000238402.70379.d4>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Elsevier. (2024). *Content coverage guide: Scopus*. Retrieved from <https://www.elsevier.com/solutions/scopus/how-scopus-works/content>
- Fu, H., McCabe, H. A., & Moucheraud, C. (2020). Mobile health interventions for people living with HIV: A systematic review and meta-analysis. *JMIR mHealth and uHealth*, 8(8), e18228. <https://doi.org/10.2196/18228>
- Hardy, C., Storman, T., & Kelly, J. (2019). Peer-led interventions to reduce stigma and improve psychological wellbeing among people living with HIV. *Journal of the International AIDS Society*, 22(5), e25269. <https://doi.org/10.1002/jia2.25269>
- Kim, Y., Kim, H. J., & Park, S. (2023). Effectiveness of mobile applications on ART adherence and mental health among HIV-positive adults in Korea: A randomized trial. *JMIR Mental Health*, 10, e43371. <https://doi.org/10.2196/43371>
- Kokol, P., & Blažun Vošner, H. (2023). A bibliometric analysis of global research on holistic health: Trends and implications. *Healthcare*, 11(1), 112. <https://doi.org/10.3390/healthcare11010112>
- Nakimuli-Mpungu, E., Wamala, K., Okello, J., Ndyabangi, S., Kanters, S., et al. (2015). Group support psychotherapy for depression treatment in people with HIV/AIDS in northern Uganda: a single-centre randomised controlled trial. *The Lancet HIV*, 2(5), e190–e199. [https://doi.org/10.1016/S2352-3018\(15\)00033-2](https://doi.org/10.1016/S2352-3018(15)00033-2)
- Pantelic, M., Sprague, L., Stangl, A., & Pulerwitz, J. (2019). It's not all in your head: critical knowledge gaps on internalized HIV stigma and a call for integrating stigma into clinical practice. *BMC Medicine*, 17, 226. <https://doi.org/10.1186/s12916-019-1462-y>
- Remien, R. H., Stirratt, M. J., Nguyen, N., Robbins, R. N., Pala, A. N., & Mellins, C. A. (2019). Mental health and HIV/AIDS: The need for an integrated response. *AIDS*, 33(9), 1411–1420. <https://doi.org/10.1097/QAD.0000000000002227>

- Simoni, J. M., Nelson, K. M., Franks, J. C., Yard, S. S., & Lehavot, K. (2015). Are peer interventions for HIV efficacious? A systematic review. *AIDS and Behavior*, 19(7), 1217–1233. <https://doi.org/10.1007/s10461-014-0998-3>
- Turan, B., Hatcher, A. M., Weiser, S. D., Johnson, M. O., Rice, W. S., & Turan, J. M. (2017). Framing mechanisms linking HIV-related stigma, adherence to treatment, and health outcomes. *American Journal of Public Health*, 107(6), 863–869. <https://doi.org/10.2105/AJPH.2017.303744>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- WHO. (2008). *Task shifting: Global recommendations and guidelines*. Geneva: World Health Organization. <https://www.who.int/publications/i/item/9789241596312>
- Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>