Commentary

Advancing Health Infrastructure to Address Mental Health Disorders among People Living with HIV in Sub-Saharan Africa

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People living with HIV in sub-Saharan Africa bear a disproportionate burden of mental and behavioral health disorders compared with the general population. Several health care systems throughout the region have made efforts to integrate HIV and mental health care, but these systems have met challenges in long-term sustainability due to limited care continuity and insufficient attention to social determinants of health. In this commentary, we propose evidence-based recommendations for integrating HIV and mental health care that may overcome these barriers. These strategies include mental health screenings and referrals during routine HIV clinic visits, community-based mobile clinics and telemedicine to expand access to mental health services, concurrent mental health and HIV education within schools, and models for future health care innovation. These approaches have the potential to offer an entire continuum of care for people living with HIV and co-occurring mental health disorders, mitigating the dual burden of these conditions in sub-Saharan Africa. *Ethn Dis.* 2025;35(2):53–57; doi:10.18865/EthnDis-2023-46

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Introduction

Sub-Saharan Africa (SSA) faces the highest burden of HIV in the world.[1] Although the expanded availability of antiretroviral treatment has reduced AIDS-related morbidity and mortality in the region, people living with HIV in SSA are up to three times more likely to have mental and behavioral health disorders compared with the general population.[2] In particular, people living with HIV in SSA are disproportionately affected by suicidality, anxiety, posttraumatic stress disorder, substance abuse, and depression.[3-5] The high prevalence of mental health disorders among people living with HIV is driven largely by stigma and misinformation surrounding HIV infection, socioeconomic challenges, and inadequate resources for prevention and treatment of mental health issues.[1,4] Additionally, stigma surrounding mental health is prevalent in many communities in SSA, which creates a barrier to accessing the existing mental health services in the region and exacerbates the mental health difficulties faced by at-risk individuals, such as people living with HIV.[6]

With the epidemiological transition leading to a rise in noncommunicable and neuropsychiatric diseases in SSA,[7] a heightened focus on mental health is critical. To address the disproportionate burden of mental health disorders among people living with HIV, health care systems in Cameroon, South Africa, Zimbabwe, and elsewhere in SSA have capitalized on their robust HIV health infrastructure built over the past 2 decades to offer integrated services for both HIV and mental health. In such integrated models, screening for mental health disorders and evidence-based treatments, such as psychosocial therapy and antidepressant medications, are offered directly within HIV clinics to people living with HIV.[2] This approach efficiently leverages limited resources and also allows people living with HIV to receive mental health care from trusted HIV providers, helping to overcome the stigma that may otherwise prevent them from seeking mental health support outside of their HIV clinics. Although some initiatives aimed at integrating HIV and mental health care have shown promise, many have faced challenges in long-term sustainability due to limited care continuity and insufficient attention to unmet social determinants of health (SDOH).[2]

In this commentary, we provide evidence-based recommendations for integrating HIV and mental health

care in SSA that could overcome challenges facing existing models. These recommendations include conducting mental health screening directly within HIV clinics, utilizing mobile clinics and telemedicine to enhance service accessibility, and implementing mental health awareness education in schools. These initiatives have the potential to significantly bolster support for people in SSA living with HIV and mitigate the rising burden of mental health disorders they encounter (Figure 1).

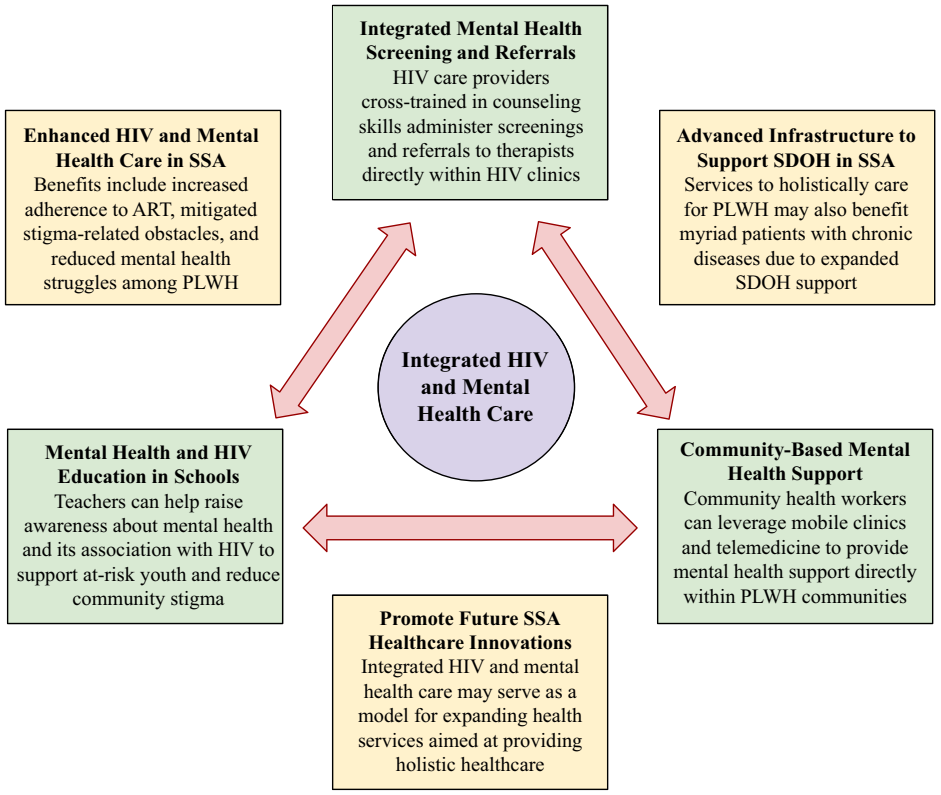

Figure 1. Recommendations for integrating HIV and mental health care in SSA

Mental Health Screening and Referrals during Routine HIV Clinic Visits

Given the shortage of mental health care professionals in SSA,[4] HIV care providers, including physicians, nurses, and community health workers, must be cross-trained in assessment and counseling skills to meet personnel requirements of the presented health care model. Mental health specialists from nongovernmental organizations and partnering health facilities can train HIV care providers in screening for mental illnesses, offering evidence-based treatments, and making appropriate referrals for higher levels of care.

People living with HIV should complete brief, standardized mental health screenings during routine visits to HIV clinics. These screening tools can provide important information about emotional challenges, maladaptive lifestyle choices (e.g., sleeping and eating patterns, substance use, and physical activity), daily functioning, and underlying causes of or contributors to a wide range of mental and behavioral health conditions. Depending on mental health needs, HIV care providers can then provide evidence-based treatments, including culturally sensitive counseling, or refer patients to therapists who can offer a wider variety of services, such as psychotherapy and support groups.

In a study in Uganda, the feasibility of integrating treatment for depression and HIV within HIV clinics was assessed, and positive responses were obtained from clinicians and patients.[8] The findings indicated that integrating mental health services with HIV care had the potential to enhance adherence to antiretroviral treatment, mitigate suicidality, and restore self-efficacy. However, challenges identified included increased workload for clinicians and extended waiting times for patients. Considering these limitations, we recommend that integration efforts extend beyond HIV clinics and move directly into the communities of people living with HIV.

Use of Mobile Clinics and Telemedicine to Expand Access to Mental Health Services

Community-based mobile clinics, which are motor vehicles that deliver health services in geographically isolated areas, have recently gained traction in SSA. For example. researchers used a van-based mobile clinic to access remote communities in Cape Town, South Africa to offer pre-exposure prophylaxis and HIV health education for young women.[9] Mobile clinics may also be used to extend mental health services beyond HIV clinics for people in SSA living with HIV. Mobile clinics can access schools, community centers, and neighborhoods to offer routine HIV and mental health screening directly within HIV communities,

improving equitable access and overcoming transportation barriers that limit care.

Previous research from SSA suggests that community health workers can deliver effective, community-based mental health interventions for people living with HIV.[10] Thus, community health workers must be leveraged in scaling basic psychosocial and group therapies in this setting. Therapy sessions can be linked to routine HIV care and should include culturally appropriate assessments of the need for referral to more specialized personnel. Community health workers also can foster public awareness and dialogue about mental health within communities, helping to normalize help-seeking behaviors and cultivating a culture of mental wellness that overcomes deep-seated stigmas against both HIV and mental health disorders.

To further ensure continuity in care, community health workers can use telemedicine to connect with people living with HIV, which has spread rapidly across SSA since the start of the COVID-19 pandemic, to target mental health disorders. Mental health tech startups, such as MindIT in Ghana and Wazi in Kenya, are using social messaging platforms to provide patients with free, virtual mental health consultations with mental health professionals.[11] Such telemedicine programs and toll-free mental health helplines must expand across SSA. Combined with mobile clinic outreach, telemedicine will produce a myriad of benefits for people living with HIV in the region, including enhanced adherence to antiretroviral treatment and reduced depressive symptoms.[12,13] To reduce the stigma of HIV and mental health conditions for future generations in SSA, informative content can be disseminated through social media platforms such as Facebook and X.

Concurrent Mental Health and HIV Education within Schools

Mental health literacy influences an individual's ability to recognize the symptoms of mental health disorders and promptly seek care. Although education on HIV prevention has been included in educational curricula in many schools in SSA, education about mental health conditions has lagged behind.[14] Mental health education must be integrated within primary and secondary schools. Adolescents and youth should learn that HIV infection does not have only physical health implications; it also has mental, social, and behavioral health consequences. Students must also be made aware of resources available for mental health support. Sustainable progress toward destigmatizing HIV and mental health disorders can be achieved through school-based initiatives that engage students in open conversations on these topics and educate students that mental health care can improve all facets of well-being.

An example of a successful school-based mental health education program is in Uganda, where a teacher-led life skills intervention increased self-efficacy, reduced internalizing of problems, and enhanced prosocial behavior and community cohesion among secondary school students.[15] Similar programs within HIV education contexts could thus provide benefits such as teaching at-risk individuals and those living with HIV how to build social support networks and address internalized stigma. In Tanzania, training of secondary school teachers in mental health literacy significantly increased their knowledge and reduced stigma regarding mental illness.[16] Hence, integration of mental health literacy with HIV education holds the additional benefit of potentially decreasing community stigma associated with these interconnected conditions.

Models for Future Health Care Innovation in SSA

Health care challenges faced by people living with HIV and other populations in SSA often mirror those encountered by medically underserved populations in high-income settings such as the United States and Europe. These challenges arise primarily from difficulties with SDOH, which include poverty, discrimination, inadequate social support, food insecurity, and limited access to health care—issues that are pervasive among marginalized groups globally.[17,18] Given the presence of these structural inequities in both SSA and high-income settings, there is a valuable opportunity to learn from approaches used to address challenges with SDOH among patients with chronic diseases in high-income countries. These lessons can then guide the development of innovative health care models that specifically address the unique SDOH needs of people living with HIV and other patients in SSA.

In high-income settings, it is increasingly common for individuals with chronic health conditions to receive a comprehensive, integrated suite of SDOH services from an interdisciplinary care team, ideally provided under a single roof or via telehealth on the same day.[19] One example of this approach is Integrated Support for Cancer Patients, whereby people with cancer are efficiently connected with a variety of services, including psychiatry, nutrition, physical therapy, chaplain services, tobacco cessation, and weight loss medication.[20] Although it may not be feasible to achieve comparable progress in low-resource settings in

the short term, we must aspire toward similar, innovative approaches that address the holistic needs of individuals such as people living with HIV who also many be facing mental health challenges.

A valuable theoretical model for innovation in mental health care delivery is "leapfrogging," which involves mapping the future progress of health care systems in low-resource settings and then bypassing inefficient middle steps to streamline arrival at an ideal endpoint. In this way, low-resource settings can quickly match or even surpass higher resource settings in thoughtful health innovations.[21] For example, landline telephones were not available in many settings in SSA due to the high infrastructure costs of establishing a wired network. However, mobile wireless technology has been rapidly adopted in many of the same settings, which has led to the early adoption of many mobile technologies, such as the widespread use of mobile peer-to-peer wireless payments, several years before these were adopted in many high-income countries.[22] Similar innovation is needed for health care delivery in SSA, which could address some of the complex and syndemic challenges that create health inequities, such as the high burden of mental health challenges among people living with HIV.

Limitations and Implications of Presented Strategies

One limitation of the recommendations presented in this article is that they are general and, in practice, would need to be tailored to the specific sociocultural contexts of the target populations. SSA is highly heterogeneous across its 49 countries, with populations differing significantly in terms of culture, economic status, health care access, language, and attitudes toward mental health and HIV. Accounting for this vast diversity would not feasible in this article. Therefore, the proposed solutions must be seen as merely blueprints based on previous models and to be effective must be adapted to the nuances of the target populations.

Several of our proposed interventions would necessitate significant funding, human resource shifts, and policy changes. Most HIV clinics currently have limited capacity to offer mental health services, and mobile clinics and telemedicine are novel health care delivery models in SSA that would be expensive to implement on a large scale. However, government support for the treatment of mental health disorders such as depression produces substantial economic returns on investment through decreased utilization of health care, increased productivity, and higher contributions to the tax base.[23] More important, such investments contribute to the overall well-being of the population. We urge that research be undertaken to explore the program recommendations made here as potentially cost-effective strategies to reduce the global burden of mental health challenges among people living with HIV.

Conflict of Interest

No conflict of interest reported by authors.

Author Contributions

Research concept and design: Rahim, Knettel; Manuscript draft: Rahim, Kannan, Katyal, Wang, Basrai, Lartey, Jain, Hammond, Patel, Knettel; Administrative: Rahim, Lartey, Jain, Knettel; Supervision: Knettel

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