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Alleviating psychological distress and promoting mental wellbeing among adolescents living with HIV in sub-Saharan Africa, during and after COVID-19

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Abstract

COVID-19 social control measures (e.g. physical distancing and lockdowns) can have both immediate (social isolation, loneliness, anxiety, stress) and long-term effects (depression, post-traumatic stress disorder) on individuals' mental health. This may be particularly true of adolescents living with HIV (ALHIV) and their caregivers – populations already overburdened by intersecting stressors (e.g. psychosocial, biomedical, familial, economic, social, or environmental). Addressing the adverse mental health sequelae of COVID-19 among ALHIV requires a multi-dimensional approach that at once (a) economically empowers ALHIV and their households and (b) trains, mentors, and supervises community members as lay mental health services providers. Mental health literacy programming can also be implemented to increase mental health knowledge, reduce stigma, and improve service use among ALHIV. Schools and HIV care clinics offer ideal environments for increasing mental health literacy and improving access to mental health services.

Keywords

Adolescents; HIV; mental health; COVID-19; sub-Saharan Africa

Introduction

Sub-Saharan Africa (SSA) houses a disproportionately large population of adolescents living with HIV (ALHIV). In SSA live 89% of the 1.6 million ALHIV globally, 80% of whom are between the ages of 15–24 years (UNICEF, 2018; World Health Organization [WHO], 2020). Evidence from countries across SSA suggests that ALHIV experience poorer health outcomes (i.e. mortality, virologic treatment failure rates, and retention in care) than younger children and adults (Enane et al., 2018; Laurenzi et al., 2020). Worse, exposure to other

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Authors' contributions

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intersecting stressors such as poverty, violence, and health-related burden are linked to adverse mental health and HIV treatment outcomes of ALHIV (Adejumo et al., 2015; Back & Marzolini, 2020; Boyes et al., 2019; Cluver et al., 2013; Galea et al., 2020; Gentz et al., 2018; Vreeman et al., 2017; West et al., 2019). These stressors tend to have cumulative effects, leading to psychological distress and a higher risk for ART nonadherence, which can in turn lead to further transmission of HIV (Boyes et al., 2019; Cluver et al., 2013). Common psychological distresses associated with ALHIV include depression, anxiety, emotional and behavioural difficulties, trauma, and suicidality (Baxter et al., 2014; Brooks et al., 2020; Cavazos-Rehg et al., 2020b; Mutumba et al., 2016; Nakimuli-Mpungu et al., 2012; Nabunya et al., 2020; Pretorius et al., 2015), each of which can yield their own cumulative effects. ALHIV in SSA thus represent a sizeable population at higher risk of a host of negative outcomes.

Compounding these difficulties, COVID-19 social control measures (e.g. physical distancing and lockdowns) could negatively impact ALHIV's psychological functioning by exposing them, their caregivers, and their families to additional stressors (Galea et al., 2020a; Gruber et al., 2020; Kemigisha et al., 2019; WHO, 2020). These stressors include further social isolation, loneliness, anxiety, short-term stress, and depression and post-traumatic stress disorder over time (Boyes et al., 2019; Cluver et al., 2013; Nalukenge et al., 2019; Ramaiya et al., 2016). Clearly, SSA urgently needs innovative, low-cost, evidence-based interventions designed to promote mental health for its vulnerable ALHIV population, with particular attention to COVID-19-specific stressors.

To this end, our commentary highlights mental health challenges faced by ALHIV and their caregivers in SSA. We first summarise mental health service challenges related to the limited availability of skilled professionals and inadequate mental health information in SSA. Then, we discuss several cost-effective, evidence-based mental health interventions that can be culturally adapted to address a range of mental health challenges faced by ALHIV during and after COVID-19. Focuses of these interventions include economic empowerment, lay mental health providers, and mental health literacy.

Existing stressors and mental health challenges for ALHIV

As noted, ALHIV deal with multi-dimensional and intersecting stressors that may increase their risk of mental health challenges (Adejumo et al., 2015; Vreeman et al., 2017; West et al., 2019). These stressors include a stigmatised chronic disease and a complex ART treatment regimen, possibly in the context of community-level poverty, substance abuse, violence, and disintegration (Adejumo et al., 2015; Small et al., 2021; Vreeman et al., 2017). In addition, medication-related fatigue and side-effects such as lipodystrophy syndrome and immune reconstitution syndrome maybe personal stressors for ALHIV (Gentz et al., 2018; Vreeman et al., 2017). Unfortunately, ALHIV (in SSA) are likely to experience the loss of parents or close family members, poverty, stigma, and poor social support that undermines their ability to cope with these stressors, increasing the likelihood of negative outcomes (Boyes et al., 2019; Cavazos-Rehg et al., 2020a; Cluver et al., 2013; Mutumba et al., 2016; Small et al., 2021).

Substantial research shows that the most common mental health challenges associated with the abovementioned stressors among ALHIV include internalised stigma, anxiety, depressive symptoms, stress, and suicidality (Boyes et al., 2019; Cluver et al., 2013; Gentz et al., 2018; Logie, 2020; Mutumba et al., 2016; West et al., 2019). For instance, a recent systematic review on the prevalence of mental health problems among ALHIV highlighted that 25% reported a psychiatric disorder, while between 30–50% showed emotional or behavioural difficulties (Dessauvagie et al., 2020). A multinational study found that 31% of persons living with HIV in SSA reported depressive symptoms, with 18% reporting major depressive symptoms (Nakimuli-Mpungu et al., 2012). Further, in a sample of 336 ALHIV (ages 10–19 years) from southwestern Uganda, Kemigisha and colleagues (2019) found a 45.8% prevalence of depressive symptoms. Both figures were higher than the 5.3% prevalence of these symptoms among in SSA's general population (Baxter et al., 2014). These statistics are particularly troubling given that mental health challenges such as anxiety and depression negatively affect individuals' adherence to antiretroviral therapy (ART) (Adejumo et al., 2015; Remien et al., 2019; Vreeman et al., 2017; West et al., 2019), which increases the likelihood of suicidal ideation (West et al., 2019), substance misuse (Nakimuli-Mpungu et al., 2012), and HIV mortality (Vreeman et al., 2017).

COVID-19 social controls

Physical and social distancing measures that suspend or restrict day-to-day functioning and interactions may have short- and long-term adverse mental health consequences at individual and population levels (Brooks et al., 2020; Galea et al., 2020). Given the limited available longitudinal evidence from the ongoing pandemic, we draw on data and lessons learned from prior large-scale disasters with impacts comparable to COVID-19 in order to understand the mental health impacts of the social controls implemented to combat these disasters. Large-scale disasters (e.g. Ebola, hurricanes) increased cases of domestic violence and child abuse, as well as a wide range of other mental and behavioural disorders, including depression, anxiety, post-traumatic stress disorder, and substance use disorder (Brooks et al., 2020). Evidence suggests that disaster-related stressors, such as those resulting from social control measures, led to an increased co-occurrence of domestic violence and abuse and mental health challenges. Longstanding quarantine measures were associated with frustration, isolation, boredom, inadequate supplies, insufficient information, financial loss, and stigma, which in turn increased psychological distress, including post-traumatic stress symptoms, confusion, and anger (Brooks et al., 2020). Similarly, other studies found that lockdown measures resulted in substantial increases in anxiety, depression, substance use, loneliness, food insecurity, domestic violence, and child abuse (Brooks et al., 2020; Galea et al., 2020; Neria et al., 2008; Nyoni & Okumu, 2020; Shiau et al., 2020). Although social control and quarantine measures are purposeful public health strategies, they can also yield a host of short- and long-lasting negative outcomes for individuals and communities.

Case in point: the COVID-19 pandemic and its related social control measures expose ALHIV to additional stressors that may be particularly, and perhaps uniquely, stressful and detrimental to their mental health (Ghosh et al., 2020; Gruber et al., 2020). For instance, social control measures such as mandatory geographic quarantines, shelter-in-place requirements, and school closures may severely disrupt ALHIV's daily routines and reduce

their access to health services and support from community-based organisations and health providers (Flasche & Edmunds, 2021; Ghosh et al., 2020; Gruber et al., 2020; Jiang et al., 2020). For school-going ALHIV, schools provide not only an education, but a space for freedom, social interaction with peers, and psychological support (Aborode et al., 2020; Ghosh et al., 2020), making school closures particularly stressful events (Flasche & Edmunds, 2021). In SSA, the effect of COVID-19 social control measures on ALHIV may be even more detrimental given the time and resources they must devote to seeking care. This additional burden may stem from the limited availability of specialised HIV services, ALHIV's preferences for higher-tired facilities, and their efforts to mitigate social stigma surrounding treatment (Akullian et al., 2016; Posse et al., 2008).

In any setting, the disruption of interpersonal connections may reduce social interaction and increase loneliness (Boyes et al., 2019; Gruber et al., 2020; Kemigisha et al., 2019). Within families, COVID-19-induced social control measures may also lead to role confusion and conflict as parents juggle multiple roles, such as home-school teaching, caregiving, and work obligations (Gruber et al., 2020). Moreover, lockdown measures often entail the loss of psychosocial resources and income required to meet a family's needs, including food (Gittings et al., 2021), which is essential for ALHIV's ART medication adherence (Nyoni & Okumu, 2020). Fear and uncertainty associated with the physical and social distancing rules and violent enforcement (Katana et al., 2020) in many parts of SSA may also exacerbate preexisting inequalities and lead to worse mental health among ALHIV. All of these stressors are compounded by SSA's poorly resourced and fragmented mental health systems. The fact that the end date of the COVID-19 pandemic and the social control measures remains uncertain makes the whole experience even more stressful.

Discussion

Mental health system challenges in sub-Saharan Africa

Limited access to mental health services—Most SSA countries fall within the 'resource-constrained contexts' category. In these contexts, many people – particularly adolescents – with mental health challenges remain undiagnosed and do not receive timely treatment and support (Altevogt et al., 2010; World Health Assembly, 2013). This widening gap between the need for and the access to mental health treatment and care largely stems from the limited availability of skilled mental health professionals in SSA (Vreeman et al., 2017). In 2016, less than 1% of professionals in resource-constrained countries had received training in child and adolescent psychiatry, making it particularly difficult for youth – including ALHIV – to connect with appropriately trained mental health care providers (Vreeman et al., 2017). Indeed, the World Health Assembly (2013) estimated that across SSA there exists around one psychiatrist for every 4–5 million children. Among all people in SSA with depressive disorders, only one in 27 receives minimally adequate treatment (Frankish et al., 2018). Between 76% and 85% of people in SSA with severe mental health disorders had no access to treatment. Most of these individuals live with undiagnosed and untreated mental disorders, resulting in high rates of repeat consultations, which places an additional burden on the region's already overburdened health systems (Frankish et al., 2018; Jenkins et al., 2011; Vreeman et al., 2017).

Access to mental health services is even worse for families living in resource-constrained households (Aragona et al., 2020; Coker et al., 2020). Members of these families may lack adequate transport to mental health care facilities, be unable to pay for health care costs, and lack access to information about mental health illness and treatment options. Therefore, it is critical to prioritise interventions to promote the positive mental health of adolescents living in poverty, as well as interventions designed to prevent mental disorders, self-harm, and suicide, and reduce risky behaviours among low-resource families generally.

Compounding the limited availability of mental health services are culturally variant understandings of mental illness that might hinder people from accessing and using services. People living with mental illness may mistrust professional mental health service providers due to cultural beliefs about the need (or lack thereof) to treat mental illness. These individuals may instead seek healing and support from other sources, including traditional healers, family members, community health workers, teachers, nurses, and religious leaders (Aragona et al., 2020; Coker et al., 2020). For instance, in a Ugandan study, some participants interpreted depression as a disconnection between the living and the dead, requiring healing from traditional healers or religious leaders (Okello & Musisi, 2006). Considering the cultural interpretation of mental health is critical because socially constructed representations form the symbolic field in which people construct their social identities and meaning. These social identities impact how adolescents formulate their responses to difficult life experiences and social problems.

Limited access to mental health information—Stigma and poor mental health literacy (i.e. the ability to correctly identify mental illness in oneself or one's peers) are related critical barriers to adolescents' likelihood of seeking mental health support (Jorm, 2000). Compared to adults, young people have less favourable attitudes toward people living with mental illness, meaning that young people with mental illness may experience more peer-group stigma (Spittel et al., 2019). The perception of this stigma may hinder young people from either seeking help or trying to access information about mental illnesses (Dow et al., 2018; Mehta et al., 2015; Spittel et al., 2019), preventing them from improving their mental health literacy.

Interventions to enhance mental health service delivery for ALHIV during and after COVID-19

In light of the limited accessibility of mental health services and information in SSA, interventions must strengthen the ability of the region's fragmented and poorly resourced mental health systems to prevent and respond to mental health challenges. COVID-19's effects on the mental health of ALHIV underline the need for interventions that respond to the social realities of people with HIV living under restrictive conditions. We propose that governments and nonprofits seeking to support the mental health of ALHIV in SSA consider implementing: (a) economic empowerment programmes to reduce mental health stressors, (b) trainings for lay mental health providers to reduce the treatment and care gap, and (c) mental health literacy resources to increase capacity for mental health self-care in SSA.

Economic empowerment and mental health—Given that COVID-19 has exacerbated the economic vulnerability of most ALHIV and their households in resource-limited contexts, mental health interventions targeting this population should promote economic empowerment. For instance, family economic empowerment interventions, which combine financial security training, microenterprise, and income-generating activities (Nabunya et al., 2014; Ssewamala et al., 2020; Tozan et al., 2019), have demonstrably improved mental health outcomes and ART adherence among ALHIV. Specifically, mental health interventions for ALHIV should include components of economic empowerment that offer social support to reduce food insecurity and financial strain and increase ART adherence.

Lay mental health service providers—Substantial evidence shows that lay mental health providers can deliver effective, sensitive, and acceptable mental health services that positively influence mental health outcomes (Altevogt et al., 2010; Aragona et al., 2020; Asampong et al., 2021; Frankish et al., 2018; Galvin & Byansi, 2020; Jenkins et al., 2011; Patel et al., 2018; World Health Assembly, 2013). COVID-19 social control programmes may increase the mental health burden among ALHIV in ways that exceed the service capacity of current mental health services in SSA, creating a need for lay mental health providers. These providers will need ongoing training, mentorship, and supervision in delivering brief, low-cost, and effective evidence-based mental health interventions developed and/or adapted to the SSA context (e.g. psychosocial interventions that leverage cultural strategies) (Javadi et al., 2017; Mutamba et al., 2013; Patel et al., 2018; Singla et al., 2017; Ssewamala et al., 2018). Lay mental health providers such as traditional healers, religious leaders, peers, teachers, and parents that work directly with ALHIV and within the community can critically support a community's ability to address the mental health needs of ALHIV. However, governments or organisations or individuals seeking to implement these lay mental health programmes must also consider the community's labour market dynamics and offer incentives and continued training to reduce attrition rates.

Mental health literacy—Widely implementing mental health literacy (MHL) programmes presents another effective method for addressing the mental health needs of ALHIV. MHL promotes knowledge and understandings of (a) different types of mental health issues and distress; (b) mental health risks and underlying cause of mental health challenges; (c) self-help strategies for mental health; (d) accessible and available professional help; (e) strategies for recognising when to seek mental health support and how to access it; and (f) how to acquire information on mental health (Jorm, 2000). In short, MHL is an educational intervention that empowers participants with the information necessary to detect mental disorders, reduce stigma, and enhance help-seeking behaviours (Jorm, 2000). Among ALHIV, MHL provides individuals and communities with information necessary to reduce individual, interpersonal, and community-level mental health stigma surrounding HIV and increase the number of people living with HIV seeking or using mental health services, thereby improving their psychosocial wellbeing and treatment adherence. Although there is limited evidence of the effectiveness of MHL in co-currently addressing HIV and mental health stigmas among ALHIV in SSA (Laurenzi et al., 2020), a systematic review of non-SSA countries reported that educational interventions such as MHL were effective in this regard (Mehta et al., 2015). However, one study in Tanzania and Malawi found that

greater mental health knowledge predicted greater intentions to seek help for mental illness and to disclose a mental illness to family and friends, further underlining the importance of MHL to psychosocial wellbeing (Kutcher et al., 2016).

School children and adolescents may also be useful partners in sharing MHL knowledge and experiences, if given candid and proper guidance. One study conducted in Tanzania and Malawi found that integrating MHL into the existing school curriculum through teacher training effectively and sustainably increased many students' MHL, including students living with HIV (Kutcher et al., 2016). Notably, in many communities in SSA, governments share health-related information through schools and schoolchildren, making schools a logical venue for MHL learning. With in-person schooling paused for many students across SSA due to COVID-19, multi-media strategies such as virtual simulations, and music, dance and drama may be useful for developing MHL materials. These materials may even be delivered through mass media channels previously used to increase HIV awareness in SSA. Therefore, to combat the mental health sequelae of COVID19, we believe that schools, mass media, online outlets and HIV care clinics offer ideal environments for broadly increasing mental health literacy and improving access to mental health services for ALHIV.

Conclusion

The COVID-19 pandemic has spotlighted the need for contextually relevant, and multi-dimensional mental health interventions for ALHIV in SSA. SSA governments must prioritise mental health care as they develop and finance health budgets that respond to COVID-19 and its unintended consequences. Mental health literacy delivered in-person and via multimedia outlets may increase ALHIV's knowledge and awareness of mental disorders and mental health services, reduce the adverse effects of mental health stigma, and ultimately improve service utilisation among ALHIV.

Cost-effective mental health literacy support delivered by peers, traditional healers, parents, religious leaders, community leaders, and teachers may serve to address the mental health care knowledge and treatment gaps in SSA. Lay mental health providers will be critical in addressing the increasing mental health burden experienced by ALHIV in SSA, particularly as COVID-19 continues to draw extensively on existing health care staff and resources. Upskilling ALHIV on developing and delivering innovative mental health interventions (e.g. digital mental health) to reach their peers may further increase MHL interventions' contextual relevance and acceptability to clients.

Future research should identify mental health-seeking behaviours among ALHIV while developing and testing methods and programming that can be adapted to fit the needs and challenges of ALHIV. These needs and challenges include food insecurity, potential stigma related to disclosure of their HIV-positive status, daily living challenges, access and adherence to treatment, access to care and support, and transitions from pediatric to adult care. In the context of COVID-19, researchers also have an urgent need to examine how psychosocial interventions for ART and mental health treatment support can be adapted for delivery via telemedicine. Additionally, local researchers need training and empowerment to develop and/or adapt culturally relevant mental health responses for ALHIV during and

after COVID-19 in rigorous and sustainable ways. We believe that local researchers have context-specific knowledge of mental illnesses that may be difficult for outside researchers to access. Therefore, these communities urgently need more programmes for local training and capacity building to address COVID-19's continuing strain on existing mental health support services.

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