
Socioeconomic impact of youth mental health disorders and abuse of substances in West and Central Africa

COMMUNICATION | EDITORIAL | INVITED CONTRIBUTION | PERSPECTIVE | REPORT | REVIEW

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ABSTRACT

Mental health disorders and substance abuse are major causes of disability worldwide [1] and the leading causes of years lived with disability (YLDs) among all disease groups [2]. In particular, young children and adolescents (aged between 10 and 24 years) are deeply affected by this problem [3], with as many as 20% developing serious common disorders, such as depression and anxiety, or other severe illnesses like bipolar disorder, schizophrenia and psychosis, as well as abuse of alcohol and other substances [4]. In sub-Saharan countries in Africa, key adverse conditions are known to increase the prevalence of mental illnesses and dramatically influence the abuse of legal and illegal drugs. Years of civil conflicts [5], gender-related prejudice, unemployment and poverty are major drivers that have contributed significantly to the rise of mental health diseases, hampering social development and decreasing the quality of life of children and adolescents [6, 7]. Moreover, childhood physical, emotional and sexual violence are also known to predispose children to mental health disorders [7, 8]. This article will discuss the prevalence of mental health disorders in the context of West and Central Africa (WCA), in particular their socioeconomic impact, the current efforts in mitigating such problems, and future foci in supporting children and adolescents in WCA.

SCIENCE \Rightarrow POLICY

This article presents evidence which suggests that strengthening services to address mental health diseases of the youth population in West and Central Africa can substantially contribute to economic development. Creating policies and fostering a culture that does not overlook mental health will contribute to improving the overall health of the population, decrease the prevalence of associated comorbidities and consequently ease the burden on national health services.

Keywords Mental Health · Health Socioeconomics · Substance Abuse · African Youth Development

In the West and Central Africa (WCA) region, it is estimated that one in three young girls suffer physical violence after turning fifteen, and that one in ten are raped or sexually abused [8]. In Côte d'Ivoire, a recent survey of adolescents and young adults found that 66% of boys and 57% of girls have suffered some kind of abuse during their infancy [9].

Debilitating physiological diseases can also heavily impact the mental health of children. In WCA, the high prevalence of diseases such as HIV/AIDS, combined with a lack of awareness among the general population regarding these diseases, often leads to stigma and human rights abuse, increasing the risk of developing mental health disorders [6]. Moreover, infectious diseases such as cerebral malaria have been found to predispose children to mental health diseases [10]. This is particularly significant in Burkina Faso, Côte d'Ivoire, Liberia, Nigeria and other countries in WCA, where malaria is endemic [11].

Though the prevalence of mental health disorders has been on the rise, access to treatment has not followed the same trend. Cultural norms and religious beliefs often influence the response of society to overlook the presentation of symptoms, and this impacts directly the access to services and the pathway through care [12].

In Sub-Saharan Africa, a systematic review of community-based studies has estimated that between 12% and 30% of young people have mental health problems [7], and despite this high prevalence and the fact that most mental health disorders surge during youth (10 to 24 years of age), only a very small portion is diagnosed and treated [4]. Further, the prevalence of mental health disorders such as depression and anxiety in young people is found to predict the indirect consequences of these diseases, including low educational performance and consequent lower future income, and comorbidity development due to other non-communicable diseases (NCDs) [4, 13].

With such high prevalence, cultural stigmatization and multiple drivers leading to the onset of mental disorders, it is evident that delivering mental health support to the West and Central African population is extremely needed and that access to specialised care is limited. This situation becomes even more challenging in rural and

remote areas, where the access to basic healthcare is scarce [14].

The epidemic of substance abuse and its impact on development

Substance use disorders have become a major public health and socioeconomic issue worldwide. The World Health Organization (WHO) estimates that about 2.3 billion people consume alcoholic beverages, of whom almost 80 million are affected with alcohol-related disorders. In 2016, the harmful consumption of alcohol resulted in roughly 3 million deaths worldwide, surpassing those from diseases such as diabetes, HIV/AIDS and tuberculosis [15]. In low and middle income countries (LMICs), there is a growing epidemic in the consumption of heroin, tobacco and alcohol, especially in sub-Saharan Africa [1, 16–18]. Indeed, WHO has reported growing evidence of the negative consequences of drug abuse in this region, including a rise in sexual violence, criminal activities and loss of life [19, 20]. Importantly, it has also been observed that early initiation is one of the main causes of addiction development and adulthood dependence [19].

Although limited evidence of substance abuse in sub-Saharan Africa is available, a recent study found that the proportion of adolescents (averaging 15.6 years of age) who make use of any substances in the whole region reaches 41.6%; this proportion is highest in Central Africa (55.5%), followed by East Africa (48.99%) and West Africa (38.3%). The lowest proportion was found in Southern Africa, with 37% of adolescents using any type of substance [21]. In these regions, the most abused substances include alcohol (32.8%), tobacco products (23.5%), khat (22%) and cannabis (15.9%). Other abused substances include depressants, amphetamines, heroin and cocaine [21].

Altogether, such a high proportion of drug abuse in young age is associated with negative outcomes. For instance, in Nigeria and Ghana, alcohol and substance abuse was found to increase the likelihood of young people being infected by sexually transmitted diseases due to an increase in risky

sexual behaviour (including survival sex and non-condom use) [22, 23]. In the case of street children, they are not only exposed to the intrinsic challenges and health risks associated with an unsheltered life but, when combined with alcohol and psychoactive substance abuse, they become more likely to engage in criminal activities and to suffer traffic accidents [24]. In the Democratic Republic of Congo, it is estimated that 82% of street children are users of marijuana, 63.5% consume alcohol and roughly 4% use cocaine [25]. Worryingly, the abuse of substances has been identified as both cause and effect of other mental health diseases, such as depression, anxiety and panic disorders [12, 26]. Thus, developing public policies that target raising awareness and prevention of drug abuse during youth is likely not only to have positive impacts on youth mental health but also to protect young people from infectious diseases and help them avoid situations in which they might come into conflict with the law.

The economic impact of mental health diseases and abuse of substances disorders

Notably, mental health diseases and the abuse of substances cause a major burden on our societies, health systems and overall wellbeing of the population. However, other dire consequences, such as severe economic losses and development stagnation, also result from an impaired ability to work and the inevitable decrease in income associated with these disorders [1, 27]. It is predicted that, in the period from 2010 to 2030, the overall economic cost of mental illnesses is set to double, to account for 35% of global economic losses associated with NCDs [28]. In absolute numbers, the economic burden is set to reach \$16 trillion globally, out of which \$7.3 trillion will be centred in LMICs. In the context of WCA, where the income of four out of five workers is dependent on the informal economy [29], the inability to work due to mental health disorders can cause an immediate impact on the financial conditions of households.

Although the direct economic impact (medication, hospitalization, psychotherapy sessions, etc.) is

evident, the indirect costs of these diseases (work absence, low productivity, mortality, disability, etc.) will cause an even wider impact on the economy of WCA countries. Indeed, a report from 2010 estimated that for that year, the global economic costs of mental disorders were around \$2.5 trillion, with indirect costs accounting for the highest portion (\$1.7 trillion) [30].

Given the growing prevalence of mental health diseases and substance abuse disorders worldwide, especially in LMICs, if this problem remains unaddressed, the long-term harmful effects of these conditions will not only negatively impact the overall health of the population but also strongly hinder economic growth. Moreover, given that poverty and unemployment are key drivers of mental health disorders and substance abuse in youth [1, 31] and that the disorders themselves are known to impact severely both educational development and the ability to generate reasonable family income [2, 31], a positive feedback loop takes place, where low-income/low-education leads to mental health disorders and abuse of substances, which will further impede any future educational development and financial gains.

Barriers in tackling mental health in WCA

Addressing mental health diseases in WCA is complex, and several challenges stand in the way of effective actions. These include but are not limited to lack of financial resources, trained mental health professionals, adequate policy, and legislation [31]. The underlying causes of these challenges are heavily associated with the scarcity of quality data on mental health disorders among the youth population, both considering socio-economic impact and overall disease burden [7, 31]. Such data is crucial to support the adequate allocation of resources if they are at all available. Moreover, the lack of awareness and high stigma associated with these diseases hinders data gathering as well as actions to prevent and treat mental health disorders [1, 21]. Given that treating mental health conditions is associated with a high cost to the affected household, care is indeed inaccessible to the majority of the WCA population. In summary, the region's current financial situation

and high unemployment rates, combined with the stigma attached to mental health disorders and substance abuse and the lack of trained mental health professionals, mean that people who experience mental disorders in WCA currently have limited support [12, 21].

To address this problem, WHO has helped to advance basic mental health care in several countries through the Mental Health Gap Action Program (mhGAP) [32]. By successfully implementing the training of primary care physicians, the Program has helped communities deliver mental health support to people who would otherwise not have access to specialised care [33]. However, the scarcity of resources in these contexts often hampers the full implementation of the Program into primary care settings [34]. Furthermore, while training for pharmacological interventions has proven to be effective, several of the commonly used medications are still not available in many countries, particularly in the WCA region [35–37]. Whilst the lack of resources within health systems is a central problem, the inaccessibility of essential medicines can at least in part be credited to restrictions on manufacture and distribution, imposed by the Trade Related Aspect of Intellectual Property Rights (TRIPS) Agreement, and to inflexible national patent systems [38, 39].

While the shortage of resources imposes a barrier to tackling mental health illnesses, other social and educational factors also contribute to the worsening of the situation, such as societal stereotypes and prejudices originating from misconceptions and a lack of awareness surrounding mental illness [36, 40]. This combination has led to severe stigma among the population, significantly limiting opportunities for mental health care development and the accessibility of treatments [41]. Hence, improving mental health literacy in both educational and health systems would pave the way both for a wider understanding of the subject and an improvement in accessibility and success of treatments.

Recent efforts in improving mental health across WCA

Although the amount of evidence on efficient interventions is limited, several programmes ranging

from community-based to a nationwide scale have shown positive effects in improving the mental health of children, adolescents and their families in WCA. At the policy level, Liberia has recently reviewed their national mental health policy to include not only direct health care provision but also to address the situation surrounding nutrition, water and sanitation, subjects which can directly impact the mental health of the youth population [42, 43]. In a national effort, a community-based programme in Ghana in partnership with religious leaders has helped to reduce stigma and improve attitudes towards HIV/AIDS patients by increasing knowledge and awareness of the disease [44]. Such work in changing the public mindset towards HIV/AIDS is likely to reduce the associated occurrence of mental health disorders, such as anxiety and depression, in these patients. School-based interventions have also improved attitudes towards mental health disorders, increasing awareness and reducing depression symptoms among children in Nigeria and war-affected youth in Sierra Leone [45–48]. In East Africa, a study in rural Kenya on the use of the mhGAP intervention guide (mhGAP-IG) mobile application has proven this to be effective in diagnosing depression and identifying other comorbidities, such as suicidal behaviour [49].

Despite these recent successful efforts, more actions are needed to support children and adolescents in sub-Saharan Africa, especially in WCA. Developing national and international legislation which imposes flexibility to patent restrictions would allow easier access to psychotropic medicines. Moreover, implementing programmes that focus on youth engagement, involving them in the chain of decision and awareness-raising actions, are likely to bring immediate as well as long-term transformative changes. Partnering with key stakeholders, taking advantage of social media and recruiting community leaders, are additional means for improving engagement with young people. Finally, creating a culture that does not overlook mental health, combined with a health system that is able to identify and treat mental health disorders effectively, is a clear path to improving the overall health of children and adolescents in WCA, decreasing the prevalence of associated comorbidities and consequently decreasing the burden on national health services.

Assessing the economic costs associated with mental disorders and substance abuse and achieving far-reaching change to stigmatisation and societal attitudes in WCA are imperative. The general population, stakeholders and politicians must remain constantly aware of the true burden of mental disorders and their attached economic costs. As such, they should consider the feasibility, effectiveness and potential of measures to reduce this burden. A comprehensive and well designed mental health programme has the potential to ensure healthy development of children and adolescents, with significant improvements for overall educational outcome, consequently boosting economic growth and regional development.

Investing in mental health is paramount to encouraging development, a neglected link that hinders progress in WCA. Improving mental health is a means to both social and economic development, and a worthwhile goal in itself.

Acknowledgments

I would like to thank Dr Katrin Seeher and Dr Bruno Aholoukpe for the insightful discussions. I am also grateful to Dr Sean Chia and Katarina Pisani for their valuable comments.

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Conflict of interest The Author declares no conflict of interest.