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BRIDGING GAPS, BUILDING FUTURES!

Charting the Mental Health of Kenya's Youth

White paper by Shamiri Institute

We thank our partners

















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EXECUTIVE SUMMARY

Transforming mental health for Kenyan youth

The recent World Health Organization's world mental health report marked a significant milestone in our collective journey towards improving mental health globally. This report underscores two fundamental realities:

The World Health Organization's latest world mental health report serves as a catalyst for global mental health improvement. It acknowledges the progress made in understanding mental health and its impact, and simultaneously highlights the ongoing, devastating effects of mental health issues, particularly in developing countries. This dual reality underpins the urgent need for targeted, inclusive, and effective mental health interventions.

Over the last two decades, we have seen significant advancements in understanding mental health. Enhanced research and data have deepened our understanding of the epidemiology and impact of poor mental health. Globally, there is a growing recognition of the dire consequences of mental health issues on individuals, communities, and the global economy. This acknowledgment has spurred the development of mental health interventions as a public health imperative. More open discussions about mental health have led to policy developments

and infrastructure enhancements, making mental health services more accessible.

Yet, we continue to understand the **continued devastating impacts** of poor mental health. Despite the progress, mental health problems continue to have a catastrophic impact. Globally, mental health issues still account for the loss of 129 million years of full health, 800,000 lives to suicide, and 6 trillion dollars on the global economy. Young people in low- and middle-income countries are particularly affected due to gaps in information, governance, resources, and services.

Our national mental health survey focused on the mental health of youth aged 12-to-21 in Kenya, a Sub-Saharan African country, because Africa is a particularly young continent with a median age of only 19. With Africa's young demographic, understanding youth mental health in regions like Kenya is critical. Current research indicates a lack of comprehensive data on prevalence rates and influencing factors, emphasizing the need for a robust data infrastructure for transformative mental health care.

1.

Shamiri Institute's Groundbreaking Initiative: In partnership with the Africa Mental Health Research and Training Foundation (AMHRTF) and supported by the Fund for Innovation in Development (FID) and the Templeton World Charity Foundation (TWCF), the Shamiri Institute conducted the largest-ever mental health survey of young people in Kenya, and possibly in Africa. This survey is a significant step in reshaping mental health care for young people in Kenya and can serve as a model for similar initiatives across SSA. In our survey, we identify critical areas of concern and suggest potential interventions, some of which we highlight below:

High Prevalence of Depression and Anxiety:

The survey reveals that a significant proportion of Kenyan youths' screen for elevated depression and anxiety symptoms, with notable percentages exhibiting severe symptoms. This prevalence underscores the urgent need for a deeper understanding of the causes and for the development of targeted interventions.

The Influence of Socio-Cultural Factors:

In Kenya's community-centric culture, social support plays a vital role in youth mental health. However, many young people experience adverse family conditions, such as physical aggression, emotional neglect, and parental separation, contributing to mental health challenges.

The Impact of the School Environment:

Given the high enrollment in secondary education, the school environment significantly influences youth mental health. Factors such as social engagement, student-teacher dynamics, and bullying are critical in the development and maintenance of mental health issues.

Challenges in the Digital Era:

The proliferation of social media poses new challenges. A significant portion of youths report problematic use, with social media usage affecting mental health, particularly in terms of body image and social inclusion.

Emerging Stressors in a Changing World:

Young Kenyans are increasingly showing symptoms of PTSD and are affected by global and local stressors, including political instability, climate change, and economic challenges. These factors contribute to heightened levels of depression and anxiety.

Economic Strain:

Economic difficulties faced by adults significantly impact the mental health of youths. Financial stress within households can lead to food insecurity, increased school absenteeism, and heightened domestic tension.

This comprehensive analysis advocates for a holistic approach to tackle the complex mental health challenges faced by Kenyan youth. By emphasizing mental health education, preventive strategies, parental and teacher involvement, and increased research and funding, significant progress can be made towards improving the mental well-being of Kenya's younger generation.

The path forward requires a collaborative effort, bringing together educators, healthcare providers, parents, policymakers, and the youth themselves. Investing in mental health is not just a health imperative but a societal one, with the potential to shape the future of an entire generation. Through concerted efforts and targeted actions based on our findings, we have the opportunity to significantly improve the mental health and overall well-being of young people in Kenya and set an example for similar initiatives globally.

Tom Osborn on behalf of Shamiri Institute.



05

INTRODUCTION

The landscape of mental health has dramatically shifted in recent years, attracting worldwide attention. Mental health, which is crucial for human wellbeing and socio-economic progress, affects people everywhere, regardless of borders or backgrounds.^{1,2}

Today, about 1 billion people suffer from mental health issues worldwide.³ These issues not only cause immense human suffering, but also bring substantial economic costs. Every year, the global economy loses \$2.5 trillion due to mental health problems, and this is expected to rise to \$6 trillion by 2030.⁴ The full extent of the human impact of these issues is vast and often goes unrecorded and misunderstood.⁵

Mental health issues—which are a leading contributor to the global burden of disease—are shaping our global health profile.⁶ This is especially true in low- and middle-income countries (LMICs), where a disproportionate 82% of those affected live; the burden in these regions is notably high.^{3,7}

Young people are increasingly struggling with mental health problems, particularly in Africa. For example, recent 2022 data from Kenya shows that 44% of youths face mental health challenges, and 12% have a diagnosable mental disorder. Imagine a classroom where almost half of the students are dealing with mental health issues; this is the reality for many young Kenyans. This situation is especially concerning in a country where the average age is just 19.9

THE DEVASTATING CONSEQUENCES OF POOR MENTAL HEALTH

Poor mental health in youth significantly impacts not only individual lives but also broader society. It creates a cascade of issues, and much like a domino effect, one issue leads to another. Young people grappling with mental health challenges often experience reduced life satisfaction. Conditions like depression can overshadow their formative years, affecting their overall happiness and well-being. 10-12 Additionally, mental health issues often lead to poor academic performance- This can have tangible consequences, including lower grades, increased risk of dropping out of school, and limited employment opportunities in the future. 13,14

The social implications of this are substantial. Youths facing mental health issues may feel more isolated, become more likely to misuse substances, and in some cases, become involved with the justice system. These challenges are compounded by the lack of adequate social safety nets or institutional support, which could help alleviate the struggles faced by this vulnerable group. 17,18

Furthermore, modern-day challenges, often referred to as "emerging stressors" in scientific literature, such as climate change and global health crises like COVID-19, intensify these vulnerabilities. These factors add another layer of complexity to the already challenging issue of youth mental health. 19,20

KENYA'S UNIQUE CHALLENGES

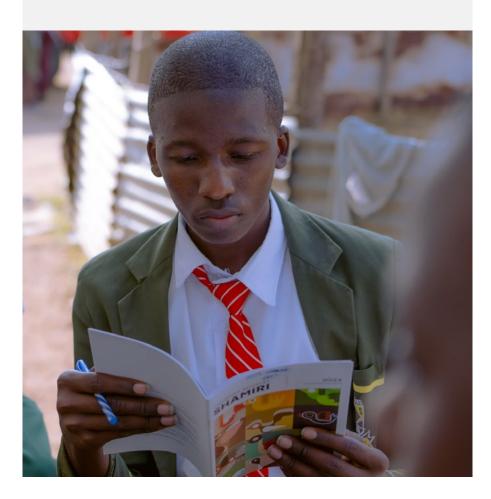
Kenya's youth mental health situation is part of the wider narrative in sub-Saharan Africa, characterized by unique challenges. These include deep-rooted societal stigma and a critical shortage of mental health professionals and healthcare infrastructure, all of which contribute to the complex mental health landscape for young people.^{21,22}

In Kenya, the approach to youth mental health is influenced by historical colonial influences and a strong emphasis on Western biomedical methods that often clash with local cultural practices. The current mental health system in Kenya appears more as a legacy of colonial times rather than a framework designed for the country's distinct cultural context.²³ This mismatch contributes to widespread stigmatizing attitudes, evident in various settings from schools to homes, exacerbating the mental health challenges for young Kenyans.²⁴–²⁶

Yet, all is not lost: there are recent signs of positive change. Recent policy initiatives in Kenya, including the 2022 consultation by the Ministry of Health with Adolescents and Young People, are making headway. These initiatives are focusing on grassroots efforts like community-based interventions, the use of telehealth services, and extensive capacity building.¹³ There is a growing momentum towards implementing stigmareducing strategies and peer-led support services, indicating a hopeful direction for the future of youth mental health in Kenya.^{27,28}

THE SHAMIRI INSTITUTE

Founded in 2019, the Shamiri Institute is a non-profit whose mission is to enable thriving African youth. It is a driven organization that develops and scales cost-effective evidence-based interventions. Founded at Harvard University, Shamiri is a by youth and for youth organization that combines rigorous social science research with deep contextual knowledge of the Kenyan educational and mental healthcare systems. Since 2021, Shamiri has served over 35,000 youths around the country.



ABOUT THIS REPORT

In May 2023, Shamiri Institute initiated an extensive mental health survey involving ^{17,809} secondary school students across Kenya. This project was designed to offer an in-depth look at the mental health situation among Kenyan youth. The survey results reveal a demographic of youths in need of multifaceted support, grappling with a complex array of stressors, and encountering obstacles in accessing help. The data also highlights how gender and age differences further define their specific mental health needs.

The issue of youth mental health in Kenya extends beyond local concerns, underscoring the necessity for regional and international cooperation. The challenges are significant, but they are matched by the potential for impactful solutions. This white paper serves as a call to action, inviting stakeholders to engage in meaningful dialogue and develop innovative strategies aimed at fostering a healthier, more promising future for Africa's youth.

Our approach included administering a series of surveys across forty-three high schools participating in the Anansi program by the Shamiri Institute. We designed six different questionnaires, each featuring a variety of assessment tools, and randomly selected approximately ²⁹⁰⁰ students to complete each survey. Detailed information about these tools can be found in Appendix ¹.

Additionally, the team organized two focus group discussions in two Kenyan high schools, each representing different socio-economic backgrounds—a well-funded prestigious public school and an underresourced government school. Participation in these discussions was voluntary, with students discussing the challenges faced by high schoolers in Kenya. All necessary ethical approvals and licenses were obtained before conducting the surveys and focus group discussions.

3.

09

PREVALENCE OF MENTAL HEALTH PROBLEMS

We begin this annual report by reporting on the prevalence of mental health problems in a large survey of ¹⁷,809 school-going youths from schools across Nairobi, Kiambu, Machakos, and Makueni Counties. This is the largest screening survey of its kind. It marks a pioneering effort in assessing youth mental health at this scale in Kenya, providing valuable insights for policy and infrastructure development in mental health care.

Participants were screened for common mental health issues, including depression, anxiety, PTSD, conduct, and hyperactivity problems. The methodologies employed included standardized tools like the Patient Health Questionnaire for depression and the Generalized Anxiety Disorder Screener for anxiety all measured for statistical validity. This approach ensures the reliability of the findings and aligns with global best practices in mental health assessment.

PREVALENCE OF MENTAL HEALTH PROBLEMS

Depression:

Approximately 28% of the 17,089 youths screened showed signs of depression. The study highlighted a gender disparity, with females exhibiting higher rates of depression. Additionally, urban students, particularly those from Nairobi and Kiambu counties, were more affected compared to their peers in Machakos and Makueni.

Anxiety:

The anxiety screening revealed that 24% of participants exhibited anxiety symptoms. Again, a higher incidence was noted among females and students in urban schools.

Post-Traumatic Stress Disorder (PTSD):

The survey found that 41% of the adolescents screened showed probable PTSD, while 20% exhibited moderate trauma-related distress. This high prevalence indicates a significant exposure to traumatic experiences among the youth.

Conduct and Hyperactivity Problems:

Conduct issues were present in 16% of the youths, with 12% falling within the borderline range. Hyperactivity issues were less prevalent, with the majority of adolescents scoring within the normal range.



Mental disorder	Prevalence
Depression	28%
Anxiety	24%
Post-traumatic stress disorder	41%
Conduct problems	16%
Hyperactivity problems	4%

Prevalence of common mental health problems among Kenyan youth. Note: Prevalence estimates indicate a positive screen for the selected disorder but do not reflect formal diagnoses.

These estimates highlight several critical aspects of mental health among Kenyan youth. PTSD symptoms are notably prevalent, suggesting a need for interventions addressing trauma. In contrast, conduct and hyperactivity issues are less common. Females and students in extra-county and urban schools face greater mental health challenges. This calls for targeted support, particularly in schools and urban areas, to cater to the unique needs of these groups. Further research into the specific factors contributing to poorer mental health in urban settings is also recommended.

We hope that this report will serve a vital reference for policymakers, educators, and healthcare professionals. It underscores the urgency of developing tailored mental health programs, enhancing resources in specific regions and schools, and fostering a deeper understanding of the environmental factors influencing youth mental health in Kenya.



NO MAN IS AN ISLAND:

The interplay of collectivism and youth wellbeing in Kenya

Sociocultural factors significantly influence mental health dynamics worldwide. The saying "No man is an island" holds especially true in Africa, where societal networks profoundly shape individual experiences.

Our comprehensive 2023 survey on youth mental health in Kenya underscores the importance of social connections. This section of our report first explores the concept of collectivism in Kenyan culture. We then examine the critical role of social support in tackling mental health challenges faced by Kenyan youths. Following this, we analyze the impact of adverse childhood experiences on youth mental well-being. Finally, we investigate the influence of family dynamics on the mental health of Kenyan youth.

These insights provide a deeper understanding of the sociocultural underpinnings that are crucial for developing effective mental health strategies and interventions within the Kenyan context.

4.

THE ESSENCE OF COLLECTIVISM IN KENYAN CULTURE

Kenyan culture, like other African cultures, is deeply rooted in a collectivist ethos, which stands in contrast to the individualism prevalent in many Western societies. Individualism typically prioritizes personal welfare, whereas collectivism emphasizes the greater good of the community. Central to this African collectivist mindset is the Ubuntu philosophy, epitomized by the saying, "I am because we are". 33,34

Research comparing individualistic and collectivist traits between Kenyan and American populations highlights Kenya's strong lean towards collectivism.³⁵ However, it's important to note that as countries undergo development and modernization, there can be a gradual shift in these cultural dynamics.

Kenya's first president, Jomo Kenyatta, was a strong proponent of collectivist ideals, especially within the Kikuyu community. His landmark book, 'Facing Mt. Kenya,' published in 1938, effectively captures this sentiment. He emphasized that every action has moral and social implications, reflecting a deep understanding of the interconnectedness within Kenyan society.³⁶ These values continue to shape the social and familial networks in Kenya, underlining their significance in the cultural and societal landscape.

Individualism vs collectivism



Individualism

- People are independent
- One's identity is based on individual personality
- People are not emotionally dependent on organizations and groups
- Individual achievement is ideal
- Individual protects him/herself and his/her relatives
- Individual decision making is best



Collectivism

- People are interdependent
- One's identity is based on group membership
- People need to be emotionally dependent on organizations and groups
- Group achievement is ideal
- Group protect individuals in exchange for their loyalty to the group
- Group decision making is best

SOCIAL SUPPORT BUFFERS MENTAL HEALTH PROBLEMS

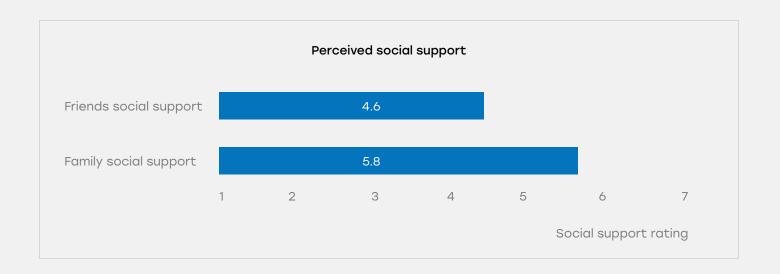
In our survey this year, we focused on understanding the extent of social support Kenyan youth receive from their families and friends, and whether this support helps mitigate the effects of mental health problems.

Echoing the nation's strong collectivist values, the results indicate that Kenyan youth benefit from substantial support from their social networks. They rated the level of support received from friends and family as high, with an average score of 5.4 on a 7-point scale.

When examining the potential buffering effects of social support on mental health, our findings were revealing. We observed a clear correlation

between high levels of social support and reduced symptoms of anxiety and depression. This suggests that strong support from friends and family can play a significant role in promoting the wellbeing of youths.

These findings align with our previous research in Kenya, where we have consistently seen a close link between social support and better mental health outcomes, specifically in terms of anxiety and depression symptoms. 37-39 Across these studies, increased social support has consistently been associated with fewer symptoms of these mental health issues. This underscores the importance of a robust social support system in combating mental health challenges among Kenyan youth.



ADVERSE CHILDHOOD EXPERIENCES AFFECT YOUTH MENTAL HEALTH

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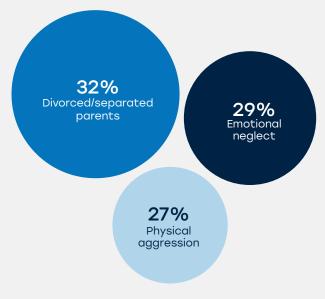
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3 in 10 of Kenyan youths have faced adverse childhood experiences

Often, these adverse experiences are not addressed adequately. Due to prevailing cultural norms, young people may normalize or trivialize such experiences, leading to a reluctance to report violence or seek assistance.42 However, it's important to note that, as per Kenya's constitution, every child has the right to security and protection.^{43(p53)}

Our study also found a direct correlation between these adverse family experiences and increased symptoms of anxiety and depression. The wellbeing of youths is negatively impacted by such experiences, highlighting the critical need for more focused attention and intervention in these areas.



Adverse childhood experiences at home/family

FAMILY DYNAMICS MATTER

Finally, we also explored the impact of family dynamics on the mental health of Kenyan youths, who often find themselves in varied family structures, including nuclear families, foster care, and children's homes.

Our findings emphasize that these family dynamics are indeed significant. The presence and number of parental figures in a young person's life greatly influences their mental health. Specifically, living with both parents seems to provide a stronger protective effect against anxiety and depression compared to living with just one parent or none.^{44,45}

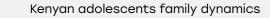
Parental figures have a crucial role in shaping the mental well-being of youth. They provide emotional support, stability, and guidance, all of which are vital for healthy psychological development.

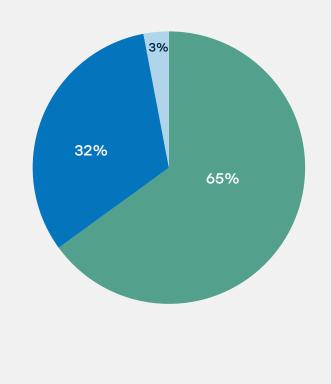
However, while parents generally have high aspirations for their children's success, these expectations can sometimes become a source of stress, particularly in academic matters. This was highlighted in a focus group discussion we conducted in October 2023 which revealed that academic pressure is a major stressor for high school students in Kenya. One student poignantly expressed this, saying, "Parents expect perfect grades in all exams even though they don't understand the struggles in schools." This underscores the need for a balanced approach to parental expectations to avoid adding undue stress to young people's lives.

66

Parents expect perfect grades in all exams even though they don't understand the struggles in schools.

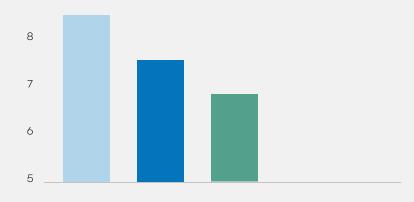
A high school student - Nairobi



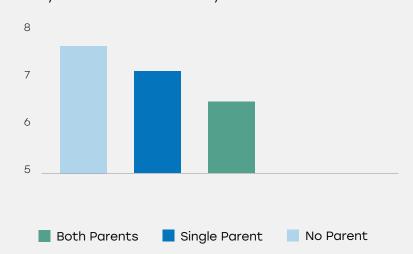


Both Parents Single Parent No Parent

Depression mean scores in the family structures



Anxiety mean scores in the family structures



CONCLUSION

In the context of Kenya's rich cultural landscape, where a strong sense of collectivism is interwoven with individual experiences, the significance of social support in youth well-being becomes increasingly clear. As we delve into the intricacies of youth mental health in this dynamic country, the necessity of both community-oriented and individual-focused approaches for comprehensive mental health support is evident.

Embracing and taking pride in the collectivist culture of Kenya is crucial. This collectivism plays a pivotal role in nurturing robust social support networks within families and among friends. Such support systems serve as vital buffers against mental health challenges, thereby enhancing the well-being of youths.

For youths who are not in the care of their parents or who have endured adverse childhood experiences, it's imperative to provide the necessary support. The broader community can play a part by establishing support groups specifically for these youths and by offering tangible assistance to address their fundamental needs, including school fees and food access.

Moreover, there should be an emphasis on interventions designed to help youths develop effective coping mechanisms for handling life's stresses. It's also important for parents, particularly those with children struggling academically, to focus on their child's strengths and offer positive reinforcement, rather than solely emphasizing academic achievement. This balanced approach can contribute significantly to the overall mental and emotional well-being of Kenya's youth.



SCHOOL CLIMATE AFFECTS MENTAL HEALTH

The impact of the school climate on youth mental health is profound. This section of our report delves into various aspects of the school environment and how they affect students' mental health.

We begin by introducing social engagement, a mainstay in human group life, more so for high school students. After this, we drill down into specific aspects of the school climate that influence the mental wellbeing of students. We explore student-teacher relationships, instances of bullying, and engagement in school activities, highlighting their interplay with depression and anxiety symptoms.

Finally, we conclude the section by stressing the influence of school climate on mental wellbeing and suggesting ways forward. We believe strengthening positive social engagement within the school community can unlock its potential as a social support structure for the youth.

5.

SOCIAL ENGAGEMENT:The Bedrock of Human Existence

The essence of human group life lies in the complex interplay of individuals with their environment, shaping our social realities and support systems.⁴⁶ Humans inherently need social engagement and strong support networks.⁴⁶ It's in our nature to seek out others and build networks of relationships³⁴. These promote a sense of belonging and can also offer practical help when we face challenges.

Considering the significant amount of time Kenyan students spend in school^{47,48}, this environment naturally becomes a critical space for forming social connections and achieving developmental milestones.⁴⁶In schools, numerous interactions occur between students, teachers, administrators, support staff, and the community. The quality of these interactions is key to student well-being.

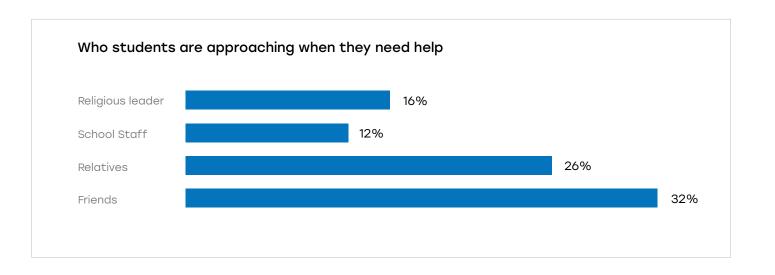


CHALLENGES IN STUDENT-TEACHER DYNAMICS

Positive student-teacher relationships are crucial. Teachers ought to aid high school students as they develop into young adults. However, our survey highlighted that when in need, 32% of students seek help from their friends, 26% from relatives, and only 12% approach school staff, teachers included.

Recent focus group discussions highlight the negative interactions between students and teachers which may explain the reluctance of many students to approach their teachers for help. These

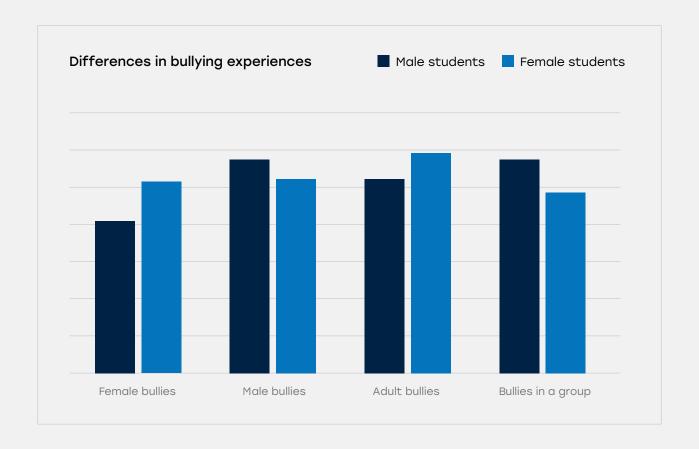
interactions, characterized by stressors such as corporal punishment and academic pressures, tend to negatively impact students' mental health and academic performance. Furthermore, they undermine the support structure surrounding a student. Teachers, who could otherwise serve as mentors, advisors, or even counsellors, may find it challenging to fulfil these roles effectively. Without them, students are missing a crucial source of support.



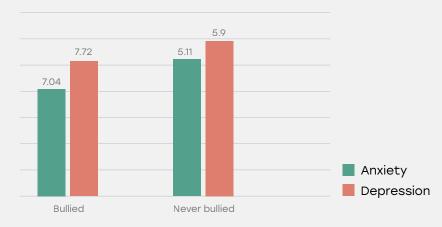
BULLYING:A Significant Impediment to Mental Well-being

Positive social interactions are also important among peers, especially for young people living through a formative period of their lives where character strengths and traits are developed and refined . 49 Positive peer relationships are critical during this stage of development.

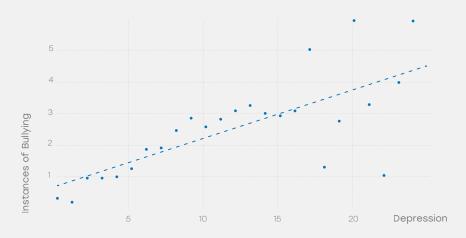
In line with prior literature, 50 our study shows a direct link between bullying and increased levels of depression and anxiety in students. Students who have never experienced or perpetrated bullying report lower symptoms of depression and anxiety compared to those who have a history of bullying. As expected, students report a high prevalence of bullying at school. Notably, boys often face group bullying, and girls are more likely to be bullied by adults. Due to the adverse effects of bullying on youth mental health, encouraging positive peer interactions and effectively addressing incidences of bullying in schools is vital for fostering resilient young adults.



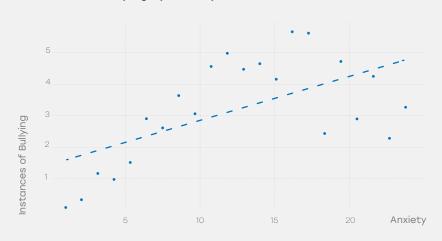
Impact of bullying on depression and anxiety



Instances of Bullying by Depression



Instances of Bullying by Anxiety



గాగు Human group life

- We establish Networks of relationships between us and our environment for us to survive
- Dynamics in these relationships play a crucial role in our mental health
- They shape realities and support structures in our societies



Survey Insights

We asked students whom they have sort help from in the recent past

- 32% sort help from their friends and schoolmates
- 12% sort help from school staff



Issues affecting students

- Negative interactions between students and teachers are common
- Stressors, including corporal punishments and academic pressures, deteriorated students' mental health
- Instances of bullying increase levels of depression and anxiety



Possible ways forward

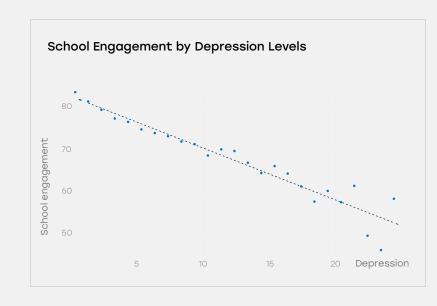
- Negative interactions between students Promoting positive student- teacher relationships can substantially enhance adolescents' mental health
- Imparting mental health knowledge could strengthen support structures in the school
- Reducing instances of bullying could enhance adolescent mental health by fostering an environment with positive social interactions

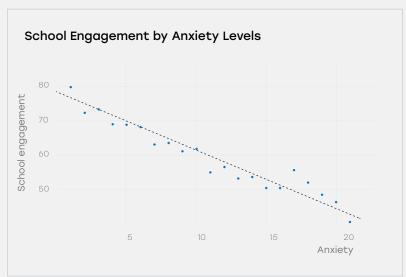
THE INFLUENCE OF YOUTHS' SCHOOL ENGAGEMENT ON THEIR MENTAL HEALTH

A positive school environment is beneficial for students' mental health. However, students' interaction and engagement at school may be of equal importance. Students who are more active at school may be better positioned to reap the benefits of a positive school environment.

Using the School Engagement Scale 51, we measured students' interest and participation in school activities. With an average score of 73.6 out of 95 on school engagement, we found a clear inverse relationship between school engagement and anxiety and depression symptoms. Students who participated more in school activities recorded lower symptoms of both depression and anxiety and higher overall wellbeing, highlighting the importance of a school engagement to youth wellbeing.

School engagement plays a critical role in the wellbeing of students. Understanding its dynamics and working to improve it could sustainably allow students to reap the benefits of a positive school environment.





CONCLUSION

The school climate significantly affects youths' mental health. Social interactions and engagement with the school environment are especially important. Understanding the complex social dynamics within schools is essential for harnessing their potential as a strong support system. By providing essential mental health tools and promoting positive peer-to-peer and student-teacher relationships, we can create a more supportive and nurturing environment for Kenyan students, enabling them to thrive.





PEER INFLUENCE AND THE EFFECTS OF A SOCIAL MEDIA UPSURGE

The accessibility of digital content has reached unprecedented levels for youths, significantly impacting their engagement with social media while also contributing to the escalating influence of peer pressure. Peer influence and increased social media use present both opportunities and challenges for youths, particularly in the context of African societies.

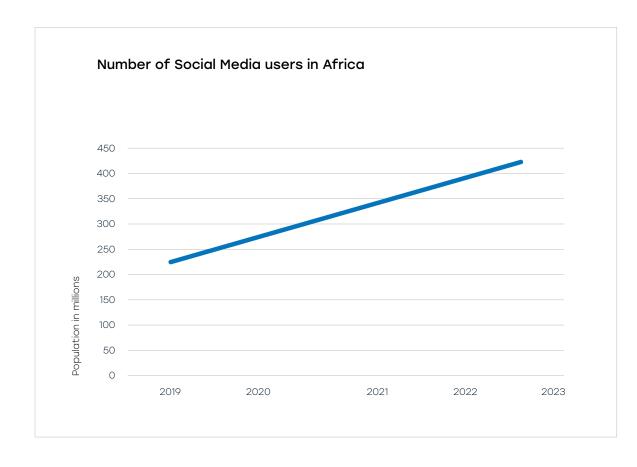
In this section, we explore the digital transformation happening in African societies. Specifically, we examine how youths engage with social media and consider its impact on their mental health and well-being. We also delve into the complexities of peer pressure in today's digital era.

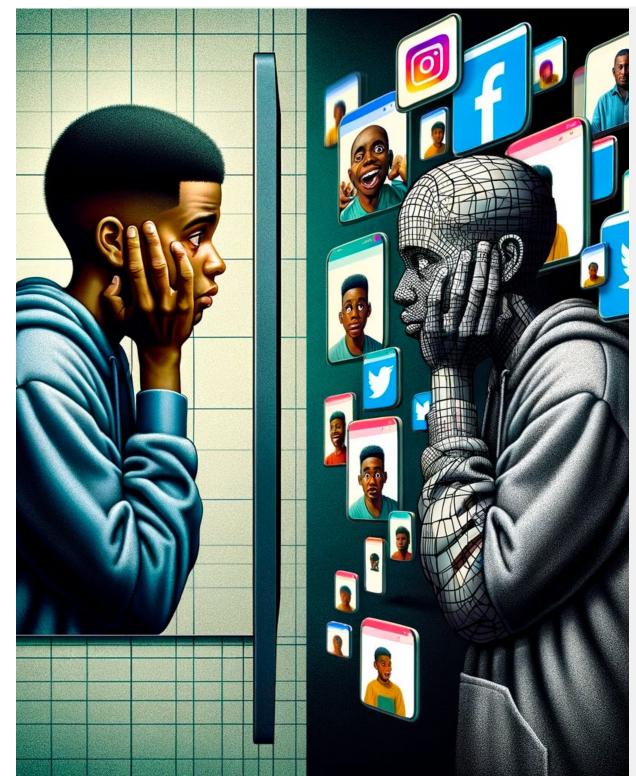
The insights gathered from our 2023 mental health survey shed light on how social media and peer pressure influence the mental health of youths, enhancing our understanding of their respective roles. These insights may inform targeted interventions for youth mental health.



THE DIGITAL SHIFT: Social media's integration into African societies

The last decade has seen a significant rise in social media use in Africa, with the Internet user base reaching 384 million in 2022.⁵² This growth is supported by the increased availability of affordable smartphones and expanded Internet coverage, allowing for the widespread integration of social media into various societal segments.⁵³

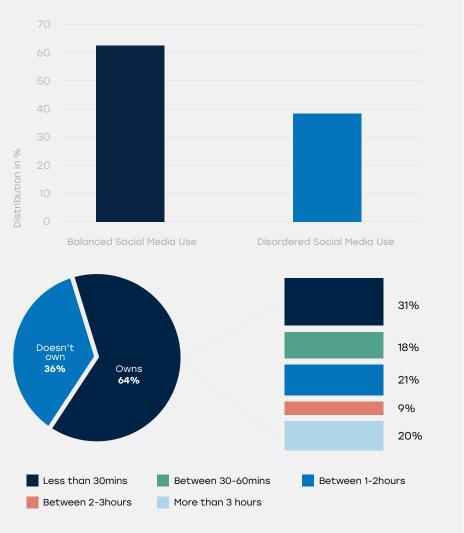




YOUTHS AND SOCIAL MEDIA

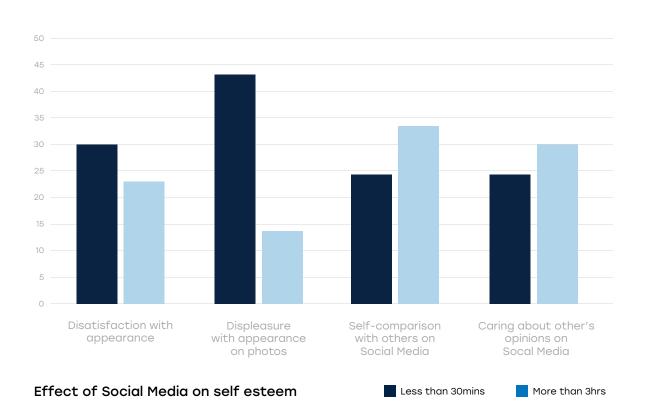
Data indicates that youths, especially those aged 13-17, are among the highest consumers of social media content.^{54,55} In our survey involving 2727 youths, over 50% had an active presence on social media. Notably, 40% frequently thought about when they could next use their phone, and 20% spent over three hours daily on these platforms. Using the Social Media Disorder scale,⁵⁶ 37% showed signs of a problematic relationship with social media. Understanding the role of social media in youths' lives is becoming increasingly crucial.

Number of Social Media users in Africa



A DOUBLE-EDGED SWORD: Opportunities and Pitfalls of social media

While social media offers numerous opportunities, it also poses risks to youth mental health. The impact of social media use varies based on the individual's motives—self-presentation or comparison.⁵⁷ Those with low self-esteem often show restraint, fearing negative feedback, while those with higher self-esteem are more resilient to Online criticism. Our findings reveal that youths spending less than 30 minutes per day on social media reported the highest levels of body-esteem issues.⁵⁵

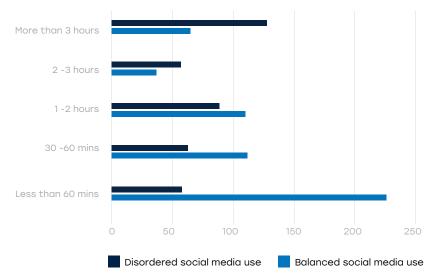


FREQUENCY VERSUS NATURE OF SOCIAL MEDIA ENGAGEMENT

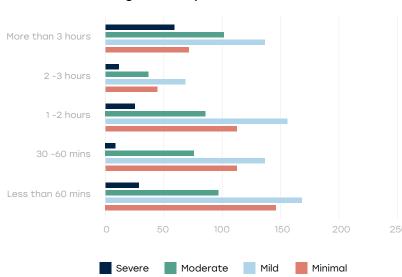
We further examined the link between social media use frequency and mental health. Increased usage correlated with higher anxiety, depression and social media disorder symptoms. However, these negative effects were modest and consistent with global research findings. Importantly, and as highlighted previously, social media presents both opportunities and pitfalls. Therefore, it's not just the time spent on social media, but the nature of interactions and activities that matters.⁵⁸

Social media usage and depression in adolescents

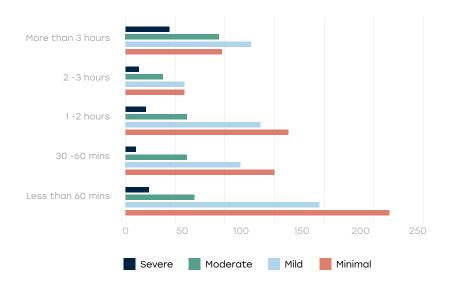
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Social media usage and depression in adolescents



Social media usage and anxiety in adolescents



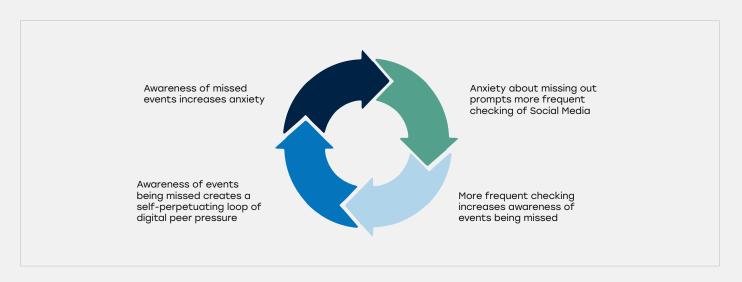
NAVIGATING PEER PRESSURE IN THE AGE OF SOCIAL MEDIA

Focus group discussions in 2023 highlighted the strong influence of peer pressure and socioeconomic comparisons, leading to financial strains and mental health issues. One participant noted, "Sometimes we want to fit in the finance levels of fellow students, leading to undue pressures on parents, incurred debts, and in some cases, theft."

In this age, social media has become a new platform for youths to seek validation, intensifying peer pressure. Today's youth encounter an overwhelming amount of information about others' lives through these platforms, fueling uncertainties about their own paths. Various theories explore how social media affects adolescent mental health. As young individuals navigate the crucial transition to adulthood, the absence of in-person interactions due to social media disrupts the communal support and social connections vital for managing life's challenges.⁵⁸ Additionally, several studies suggest that social media can influence youth to adopt unfavorable behaviors and attitudes attributable to the fear of missing out (FOMO).⁵⁴

The fear of missing out is marked by two processes; first, the feeling that one is missing out, and then a compulsive urge to sustain social ties. In terms of FOMO's social dimension, it can be linked to a fundamental need for relatedness which encompasses the desire to belong and build enduring and meaningful relationships with others. The constant exposure to "upward social comparisons" and unrealistic standards on social media can significantly dent one's selfesteem. These experiences can trigger depressive symptoms in certain individuals. Research indicates that FOMO can worsen existing feelings of loneliness and impair an individual's capacity to commit or make agreements. This is because there's a tendency to keep options open, fearing the loss of a significant, potentially life-altering experience that could provide profound meaning and personal

These behaviors align with the social identification theory, suggesting that youths are actively forming their social identities and seeking peer affirmation.⁶⁰ While peer influence can be positive, it's vital to equip youths with the skills and guidance to navigate this critical life stage effectively.





CONCLUSION

Youths are profoundly influenced by the content they consume and the peers they engage with. Our research underscores the adverse effects that social media and peer pressure can have on the mental well-being of youths. However, we acknowledge the nuanced complexity of these influences. Further research is crucial to comprehending their precise roles in shaping youth mental health. The duration of social media use and the nature of interactions significantly impact whether these experiences yield positive or negative outcomes.

In recognizing the dual nature of social media and peer pressure, interventions targeting youth mental health are essential in helping them navigate the vast array of information on social media, and peer pressure.



IS LIFE BECOMING INCREASINGLY STRESSFUL FOR YOUNG PEOPLE?

Modern life, amplified by global happenings, has introduced new stressors for the youth. The digital age, with its rapid technological advancements, has created an information-rich, high-pressure world for the younger generation. Factors like post-traumatic stress symptoms from past trauma, political instability, rise in cost of living, and climate change anxieties are particularly impactful for Kenyan youth. This section explores these stressors and their effects on the mental health of youths in Kenya.

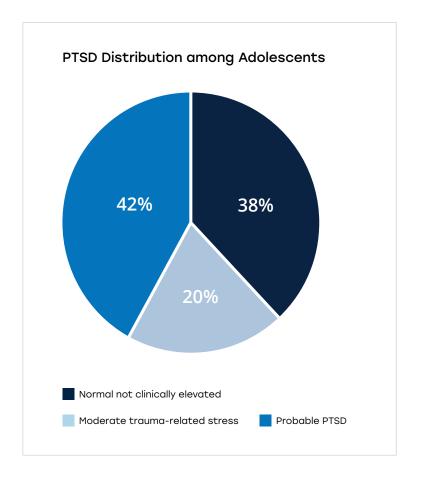
7.

PTSD SYMPTOMS ARE PREVALENT

Youths are particularly susceptible to post-traumatic stress disorders (PTSD), as they are still learning how to cope with challenging situations.⁶¹ PTSD, typically associated with traumatic experiences, can vary in prevalence depending on the type and severity of stressors encountered.⁶² In high-risk groups, PTSD prevalence in children and youth can reach as high as 60%, while it stands at about 3%-6% in the general population.⁶³

A study conducted in Kenya in 2012 found that 34.5% of surveyed students displayed signs of PTSD.⁶⁴ Our more recent data, which involved screening 2843 students using the Child and Youth Trauma Screen, revealed that 42% had probable PTSD, and an additional 20% had moderate trauma-related stress.

It's crucial to acknowledge that PTSD is complex, particularly in young people. It is a leading mental health issue connected to first-time suicide attempts among youths. ⁶⁵ Beyond the risk of suicide, PTSD can lead to increased anxiety, depression, and academic challenges. ⁶⁶ These findings underscore the importance of developing effective support and intervention strategies for young individuals dealing with PTSD.



The global landscape

PTSD in adolescents is not solely attributed to trauma but has expanded to include varied stressors and risk factors

Research Findings

- Prevalence rates for PTSD among community samples range from 3-6% and 60% among high risk groups
- Our 2023 study revealed that 42% of the respondents had probable PTSD

The Risks of PTSD

PTSD not only threatens psychological well-being but also poses significant risks such as suicide attempts,anxiety, depression and academic hindrance

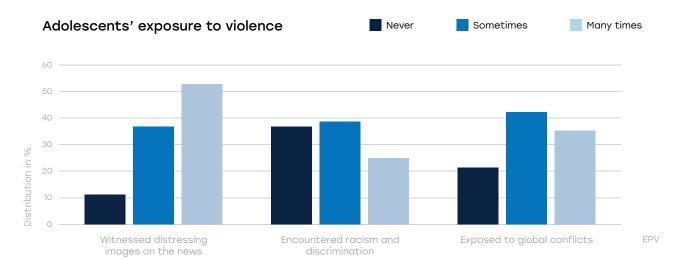
POLITICAL AND SOCIAL STRESS

Political upheaval has become more frequent worldwide. In 2022, nearly 1.7 billion people globally were affected by political violence, with a marked rise in civilian-targeted attacks and casualties.⁶⁷ In Kenya, political protests known as "Maandamano" have disrupted education, impacted the economy, and resulted in civilian deaths.^{68,69} Although many individuals, particularly the youth, are not direct victims of such violence, they are exposed to it through digital media like social media and news channels.⁷⁰

This exposure to political violence, even if indirect, has detrimental effects on mental health. Our survey in Kenya revealed that many students had not experienced direct political violence

but were exposed to information about racism, global conflicts, and distressing images Online. This exposure correlated with increased levels of depression and anxiety among these students.

The findings highlight the profound impact that political and social unrest can have on young people, even when they are not directly involved. It underscores the need for supportive measures and interventions to safeguard and assist young Kenyans in coping with the mental health impacts of such exposure. Addressing these issues is crucial for ensuring the well-being and healthy development of youths in these challenging times.



The global landscape

1.7 billion people faced political violence in 2022 with an increase in civilian attacks and fatalities

The Kenyan context

The 2023 "Maandamano" crippled the Kenyan economy. Additionally, it led to significant interruptions in the education system, affecting students' learning and academic progress. Tragically, civilian fatalities were also witnessed

Research Outcomes

Among 2727 surveyed adolescents social media emerged as the primary source of political and social stressors. There was a positive association between political unrest and heightened levels of anxiety and depression

CLIMATE CHANGE ANXIETY

The repercussions of climate change are being felt globally, with African countries, including Kenya, facing severe impacts despite their smaller contribution to the issue.71

Kenya has experienced a surge in extreme weather events, such as droughts, crop failures, and a decrease in livestock.20 These changes have dire consequences on food supply, leading to hunger and displacement, and pose significant threats to health and local ecosystems. The farming and tourism sectors, crucial to Kenya's economy, are also adversely affected.⁷²

The increase in natural disasters is raising alarm about their impact on mental well-being. Mental health issues like depression, anxiety, and PTSD are becoming more prevalent in regions affected by climate change.⁷³ Our survey found a notable correlation between climate change anxiety and the increased prevalence of depression and anxiety symptoms among individuals.

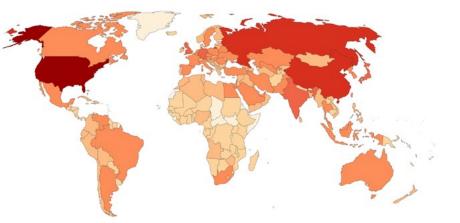
Extreme weather events are disrupting communities, forcing many to relocate in search of basic necessities.²⁰ This migration often leads to the breakdown of social connections and an increase in feelings of isolation, further exacerbating mental health challenges.74

Interestingly, our discussions with young people revealed that while they are aware of the broader impacts of climate change, it is not their primary concern. They tend to be more affected by the immediate consequences of extreme weather events rather than the global problem of climate change. However, a portion of the youth expressed a belief that they can contribute to addressing climate-related issues, indicating a recognition of the larger implications and a desire to be involved in finding solutions.

1 in 5 youths believe that they can do something to help address the problem of climate change.

Cumulative emissions are the running sum of CO₂ emissions produced from fossil fuels and industry¹ since 1750. Land use change is not included.

Cumulative CO₂ emissions, 2021



No data 0 t 50 million t 500 million t 50 billion t 100 billion t 250 billion t

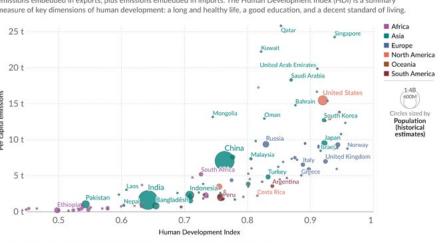
Data source: Global Carbon Budget (2022)

OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO₂) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO₂ includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.



Consumption-based emissions¹ are national emissions that have been adjusted for trade. It's production-based emissions minus emissions embedded in exports, plus emissions embedded in imports. The Human Development Index (HDI) is a summary measure of key dimensions of human development: a long and healthy life, a good education, and a decent standard of living.



Data source: Global Carbon Budget (2022); UNDP, Human Development Report (2021-22) OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

1. Consumption-based emissions: Consumption-based emissions are national or regional emissions that have been adjusted for trade. They are calculated as domestic (or 'production-based' emissions) emissions minus the emissions generated in the production of goods and services that are exported to other countries or regions, plus emissions from the production of goods and services that are imported. Consumption-based emissions - Production-based – Exported + Imported emissions

Climate Change Anxiety: A Global Crisis

- African Vulnerability: Despite their minimal contributions to global warming, African nations, especially Sub-Saharan countries, bear the brunt of climate change repercussions.71 Events like droughts, which adversely affect agriculture and tourism, are becoming increasingly common in countries like Kenya.20
- Mental health Impacts: Climate change has been directly linked to mental disorders, such as depression, anxiety, and PTSD.73 Our survey of 2865 youths associated climate change anxiety with increased mental health challenges.
- Social Impacts: Climate migration disrupts social ties, leading to social isolation.74 This has consequential effects on mental well-being. Yet, many youths display indifference to global issues like climate change. Although their day-to-day lives remain largely unaffected, there exists a faction committed to being part of the solution.

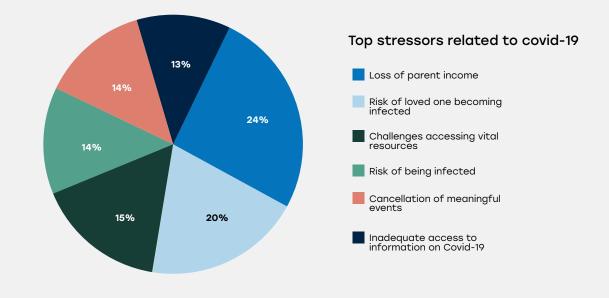
COVID 19 STRESS

The Covid-19 pandemic has had a profound impact on global societies, particularly affecting the mental health of youths.⁷ The pandemic, alongside its economic and physical toll, led to a significant increase in mental health issues during 2020 and 2021. Youths were particularly vulnerable, with one in five reporting elevated anxiety levels and one in four experiencing increased depressive symptoms globally. ⁷⁵

In Kenya, strict measures to control the spread of the virus resulted in considerable socioeconomic challenges and disruptions to daily life. Schools were closed, non-essential businesses were shut down, curfews were implemented, and public gatherings were restricted. These measures caused unique stressors for youths, including concerns about their education, feelings of loneliness and isolation from peers, and the challenges of adapting to Online learning. Tr.78

Our study highlighted the significant mental health toll of the pandemic on Kenyan students. Covid-19 related stressors were strongly linked to increased cases of anxiety and depression. Key concerns included worries about parental job security, health risks to family members, and access to essential resources.

In discussions with secondary school students, it was evident that while many may not be deeply concerned about global issues, the Covid-19 pandemic was a significant worry for them. This indicates the direct and tangible impact of the pandemic on their lives and mental well-being.



Even as Covid-19 restrictions have eased, the lingering effects on youths' mental health are still evident. ⁷⁹ There is a need for increased focus not only on understanding the impacts of the pandemic on young people's mental health but also on providing the necessary support to help them overcome these ongoing challenges. Addressing these issues is vital for the mental and emotional recovery and resilience of the youth in the post-pandemic world.

...there was no way to know if you had it or if your friend had it.

... It was an issue we had to take seriously otherwise many people would have been infected and would die from it

RISE IN COST OF LIVING- INCLUDING FINDINGS ON FINANCIAL STRAIN

The surge in inflation rates in Kenya between June 2022 and June 2023 has had a substantial impact on households, particularly affecting youths. 80-82 The inflation rate in Kenya peaked at an average of 8.7%, surpassing the government's target range. This increase has significantly affected the food and transport sectors, leading to increased living costs for households. 83

The economic strain faced by adults creates a cascade of challenges for youths. Financial stress can alter household dynamics, leading to issues such as food insecurity, increased absenteeism from school, and heightened domestic tension.⁸⁴⁻⁸⁶ Youths are not only witnesses to these struggles but are often directly impacted by them. Furthermore, children from households with parents suffering from depression and anxiety are more likely to develop similar mental health conditions.⁸⁷⁻⁸⁹

A critical concern is the financial burden associated with education. Discussions with Kenyan youths have revealed the stress of school fees, with many students unable to continue their education due to financial constraints. This leads to negative outcomes, such as substance abuse, as highlighted by a student: "School fees is a big problem; a lot of

students are struggling to pay fees, and when they can't they have to stay at home... There are several smart students who can't afford to go to school, they end up wasting their life away in the slum. Some start abusing drugs to deal with the stress."

Our study found that 20% of Kenyan youths are grappling with financial concerns. There is a clear association between financial strain and the prevalence of depression and anxiety in youths. Those experiencing high financial stress also reported higher rates of depression and anxiety symptoms.

This situation reflects a global trend, on underscoring the urgent need for the development of support systems. Addressing the rising cost of living, especially in education, is crucial to alleviate the financial burden on families and ensure a brighter future for the youth. It's essential to implement measures that can mitigate these economic challenges and provide support to those most affected.

CONCLUSION

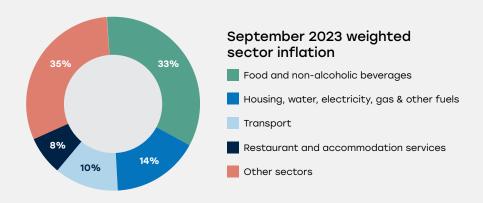
Young Kenyans encounter various emerging stressors that significantly affect their life outcomes. These range from heightened PTSD symptoms to the undeniable effects of climate change, COVID-19, increasing cost of living, and political and social stress. These combined stressors elevate depression and anxiety symptoms among the youth, consequently affecting their well-being.

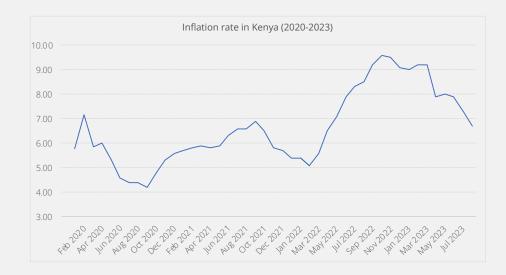
Despite these emerging stressors, there is hope in interventions that enhance the life outcomes of young people. Tailored approaches specifically addressing these issues can contribute to building a community of resilient young people. In return, it creates a generation of thriving individuals who are better equipped to overcome emerging stressors.

66

School fees is a big problem; a lot of students are struggling to pay fees, and when they can't they have to stay at home... There are several smart students who can't afford to go to school, they end up wasting their life away in the slum. Some start abusing drugs to deal with the stress.

A high school student - Nairobi







WHY DON'T YOUTHS SEEK HELP?

Despite progress in Kenya's mental healthcare sector, the reluctance of youths to seek help remains a significant issue. This section of our report examines the gaps in the mental healthcare sector in Kenya, highlighting the need to move away from the resource scarcity mentality and tap into the huge pool of "non-expert" human resource available to provide mental health support to young people. We then share common help seeking behaviors and explore the gender divide when it comes to help seeking attitudes for youths.

8.

A PERSISTENT TREATMENT GAP?

The narrative of resource scarcity in Low and Middle-Income Countries (LMICs) is well-established. 91,92 Financial constraints, infrastructural challenges, and limited human resources are frequently cited reasons for the gap in mental healthcare. 93,94 This is compounded by stigma associated with mental illness, feelings of shame, and low mental health literacy, particularly in sub-Saharan Africa and Kenya. 95-97

What if we moved away from this scarcity mentality and focused our attention on utilizing the huge human resource that we have? Inasmuch as expert caregivers are scarce in sub-Saharan Africa, extensive research now points to the effectiveness of youth mental health interventions designed to be delivered through lay-providers and caregivers. 37,98-100

Given the collectivism culture of Kenya and many African societies, it is no surprise that family, friends, and caregivers often are sought out for help more than professional experts, as will be discussed below. Family members, community champions, social workers, teachers, peer counsellors, and even traditional healers are people who can be trained to recognize symptoms of mental disorders, provide psychological first aid and support, and deliver group-based or individual mental health interventions.⁹⁸

Using such existing resources has the potential to bridge the treatment gap in LMICs by mitigating structural, human resource and financial constraints. The treatment is brought closer to those that need it most (in schools, homesteads, churches, community spaces), it is potentially cheaper as it requires little expertise, and has reduced stigma since it does not involve seeking expert or professional help.

KENYAN YOUTHS' HELP SEEKING ATTITUDES

Our investigation into the help-seeking attitudes of Kenyan youths revealed that they typically do not seek help. Barriers to help-seeking include:

- **Stigma and Shame:** Mental illness stigma and associated shame are significant barriers.
- Lack of Awareness: Low mental health literacy and understanding of one's problems.
- **Social Support Challenges:** Difficulty in revealing feelings and lack of social support.

These trends are not unique to LMICs but are common among youths worldwide. Stigma, distrust and poor mental health literacy emerge as the most cited barriers to help-seeking in youths in countries like India, Australia, United States and Spain. 101-103

GENDER DYNAMICS IN HELP-SEEKING

Our study noted a gender divide, where female youths were more likely to seek external help compared to males. This aligns with global trends, 102 where females generally show more favourable attitudes towards help-seeking. 104 Cultural and societal norms that encourage emotional restraint in boys and provide greater emotional support to girls may contribute to this disparity. 96

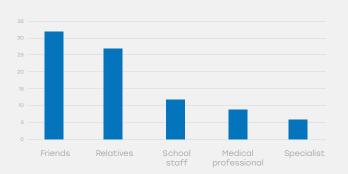
THE UNCONVENTIONAL HELP SOURCES

Interestingly, professional help from doctors or psychologists is rarely sought. Youths more often turn to friends, relatives, teachers, or religious leaders. This preference can be attributed to inadequate mental health literacy and stigma in Kenya. 96,97

The World Health Organization highlights that mental health disorders are globally misunderstood and under-resourced, with LMICs facing particularly acute challenges. The mental health landscape in sub-Saharan Africa suffers from a lack of trained providers, societal prejudices, resource shortages, and a lack of culturally appropriate interventions.

Addressing these issues requires a multifaceted approach, including improving mental health literacy, reducing stigma, increasing access to professional mental health services, and ensuring culturally sensitive interventions. This comprehensive approach is crucial for bridging the treatment gap and encouraging more youths to seek the help they need.

Source of help for adolescent mental health problems in Kenya



CONCLUSION

It is evident that barriers to help-seeking among youths are prevalent worldwide. We know that some of these barriers are stigmatizing attitudes and a lack of information of where to seek help. To encourage healthy help-seeking behaviours among youths, we may need to increase the availability and quality of mental health support and services for youths. This may require a shift from traditional, Western approaches to mental healthcare to a system that leverages the resource of non-expert care providers.

Indeed, the idea of social support is recurrent. The importance of friends, family and social relationships is evident in help-seeking. It can be a double-edged sword, where the stigma around mental illness is often perpetuated by these social circles, including family and friends, and the same group can act as a source of help for these youths. Increasing the mental health literacy of the society may therefore be important for improved help seeking.

Barriers to helpseeking

- · Not knowing where to seek help
- Worrying about what others might think
- · Not realising the need for help
- Thinking that problems will get better on their own

DISTINCT GROUPS HAVE UNIQUE NEEDS

Within societal cohorts, there are distinct groups with unique mental health needs. This is particularly evident among Kenyan youths where there are important gender and age differences. This section explores the how gender and age affect mental health prevalence among youths. We provide insights into factors that may contribute to girls experiencing more mental health problems, and discuss academic pressures among older youths that may increase their likelihood of developing depression and anxiety.



GENDER: ARE BOYS DOING BETTER?

Our data supports the gender-based differential in mental health outcomes commonly found in numerous studies:105-107

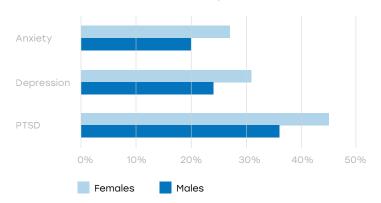
- **Anxiety Prevalence:** 27% of females exhibited heightened anxiety symptoms, compared to 20% of their male counterparts.
- **Depression Prevalence:** 31% of females reported escalated depression levels, opposed to 24% among males.
- **PTSD Discrepancy:** Females surpassed males by 9% in PTSD symptomatology.

These differences can be attributed to gender-specific vulnerabilities. For instance, studies show that in Kenya, around 14% of girls face sexual assault by age 17, compared to only 2.4% of boys.108 Such experiences can significantly impact mental health trajectories.

Globally, girls tend to face more challenges in mental health, 109 often reporting lower levels of happiness and satisfaction. 107 They are more prone to conditions like depression and anxiety. 107 The extent and nature of these disparities can differ based on the region and societal context. A striking finding from a recent study indicated that richer countries display a wider mental health gap between genders than less affluent nations. 109

The reasons for these disparities are complex, potentially involving societal gender biases and physiological differences, such as hormonal shifts. 105,107 While boys may exhibit more external symptoms like behavioural disturbances and substance abuse, girls tend to internalize their symptoms. 105 Addressing these challenges requires more research, especially to understand and cater to the specific needs of girls who are at higher risk.

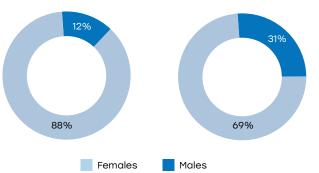
Prevalence of mental health problems



AGE: OLDER YOUTH HAVE INCREASED RISKS

Our study indicates that older youths, especially those in the later stages of secondary education, show higher levels of mental health issues. As they progress in school, not only do depression and anxiety increase, but so do PTSD rates. This increase could be attributed to the pressures related to crucial end-of-school exams and concerns about future job prospects and life after school. This finding suggests that interventions should be agespecific, addressing the unique pressures and challenges faced by older youths.





CONCLUSION

Our comprehensive analysis underscores the pervasive gender disparities in mental health, emphasizing the substantial impact on females globally. The findings highlight the urgent need for targeted interventions addressing gender-and agespecific vulnerabilities, acknowledging the complex interplay of societal, regional, and physiological factors contributing to these disparities. There should be a balanced approach in addressing these disparities, cautious not to over-emphasize interventions for girls while leaving behind the boy child. All youths need specialized and appropriate mental health support.

WHAT CAN BE DONE?

This report contributes to the growing body of knowledge on Kenyan youth mental health, which now encompasses over 10 studies with more than 30,000 youths across Kenya. These studies consistently show that while many Kenyan youths struggle with mental health issues, a vast majority either do not seek help or lack access to resources for improving their mental well-being. This leads us to the question: what can we do about it?

In this section, we highlight several solutions based on our contextual understanding of Kenyan youth mental health and informed by the findings described above. First, we highlight the need for widespread education on mental health. Next, we discuss the potential for preventative interventions and the involvement of parents and teachers. Finally, we discuss the importance of research and expenditure on mental health.

What can be done to improve the mental health of Kenyan youth?

62

- 1. Widespread education in mental health from community members to healthcare workers may reduce stigma and improve access to quality mental health services.
- 2. Simple, preventative interventions may be equally, if not more, effective than traditional psychotherapy. These may be a cost-effective solution to the vast mental health treatment gap.
- 3. Interventions for youth should be complemented with interventions for parents and teachers, who are key players in youth mental health.
- 4. More research and expenditure is needed to truly make a difference in the mental health of Kenyan youth.

10.

"PEOPLE FEAR WHAT THEY DON'T UNDERSTAND" Addressing the Need for Widespread Education on Mental Health

The Covid-19 pandemic, which resulted in global lockdowns, had immediate and lasting effects. However, a notable positive outcome during this period was the increased attention to mental health in Kenya. Job losses and extended home confinement created an environment where unresolved dysfunctions often surfaced, leading to increased violence and disruption110. In July 2022, mental health was declared a "national emergency of epidemic proportions" by a strategic task force111. Despite this, three years later, mental health in Kenya remains largely misunderstood and stigmatized¹¹².

A recent survey with 535 respondents indicated that while 91% were aware of mental health, 64% believed that mental disorders are caused by witchcraft or possession by evil spirits.113 Among 109 healthcare workers, 54% believed that most people with mental illness are dangerous. These attitudes, prevalent in both the community and among healthcare workers, contribute to the stigma and discrimination against people with mental illness. This stigma partly explains why so few Kenyans pursue careers in psychiatry, with fewer than 500 mental health workers for a population of over 43 million.¹¹⁴

Some have proposed integrating mental health services into existing primary care facilities. ¹¹⁵ In this task-shifting model, primary healthcare workers, supported by specialists, identify and treat mental illness. However, the success of this model depends on the mental health literacy of primary healthcare workers, which is currently low in Kenya. ¹¹⁶ If this model is to be implemented successfully, extensive training and education in mental health for these workers are imperative.

With limited affordable and accessible treatment options, many turn to traditional healers and clergy,

some detain persons with mental illness, and others do nothing.¹¹³ There is little data on the mental health awareness of traditional healers or clergy. It is therefore crucial to include these individuals as key stakeholders and targets for mental health education. Furthermore, educating the public on how to prevent, identify, and treat mental illness, as well as promoting mental well-being, is essential.

Evidently, mental health literacy in Kenya is generally low and stigmatizing beliefs are widespread. Experts emphasize addressing these issues before undertaking capacity-building initiatives to expand the mental health workforce. This education is vital for both mental health providers and consumers, including families and the community at large. A 'social marketing approach' to mental health education, similar to the HIV prevention campaign in Sub-Saharan Africa, could be a blueprint for widespread mental health education in Kenya. The statement of the HIV prevention in Kenya.

SHOULD WE FOCUS MORE ON PREVENTION?

THE NEED FOR A PREVENTATIVE APPROACH

The stark disparities in the demand and supply of mental health services, particularly in Low and Middle-Income Countries (LMICs), suggest that focusing on the prevention of mental illness may be more effective than solely concentrating on treatment. The field of positive psychology, which emphasizes human flourishing, offers valuable insights for cultivating mental health.^{118,119}

Positive psychology, rather than fixing what is wrong, promotes resilience and a positive mindset to enhance life satisfaction and quality of life. This approach is inclusive, aiming to improve mental health for all, thereby reducing stigma associated with mental illness treatments.¹²⁰

CASE STUDY: THE SHAMIRI INTERVENTION

The Shamiri intervention, grounded in positive psychology, teaches character strengths such as growth mindset, gratitude, and values affirmation. Delivered by lay providers with minimal training and expert support^{37,121}, this innovative approach has positively impacted over 30,000 youths in Kenya since 2018. Feedback from participants highlights the core principles of positive psychology, emphasizing an abundance mindset and proactive engagement in life.¹²²

The Shamiri intervention has been tested in several trials and has been found effective at improving the mental health of Kenyan youth^{37,121}. It adds to the growing body of literature demonstrating the efficacy on simple interventions delivered by lay providers.

COMPLEMENTING TRADITIONAL THERAPIES

While this approach does not replace traditional psychotherapies and pharmacotherapies, especially for severe mental illnesses, it serves as a complementary preventive strategy. Simple interventions like self-help workbooks, group-based workshops, and peer-to-peer programs can augment standard mental health care. The potential for scalable digital interventions should also be explored, given technological advancements.

INVOLVING YOUTHS IN SOLUTION DEVELOPMENT

There is a growing recognition of the importance of involving youths in developing mental health solutions. Kenyanyouth, in particular, have expressed a strong desire to be involved in creating strategies that address their mental health needs. More work is needed to define and enhance community engagement in research, and intervention design and implementation. This may improve engagement and acceptability of interventions which may have a positive effect on mental health outcomes.

Implementing wide-scale preventive strategies could significantly improve the mental health of Kenyan youths. By equipping individuals with tools and solutions for mental health, the pressure on overwhelmed healthcare systems could be alleviated, ensuring that those in crisis have access to immediate and high-quality care. However, mental health is not merely the absence of illness but also entails optimal functioning in various life aspects. Thankfully, these preventative solutions can also be used to enable thriving youth.

A FOCUS ON PARENTS AND TEACHERS

Mental health is shaped by various factors, including interpersonal networks, which can either bolster resilience or act as triggers for poor mental health. Parents and caregivers are pivotal in child development, and in collectivistic cultures like Kenya's, where community involvement in upbringing is common, other figures such as teachers also play a crucial role.

Given that most Kenyan youth attend school124, with a significant number in boarding schools, teachers often assume the role of primary caregivers. Therefore, addressing youth mental health requires the involvement of both parents and teachers. Stress from academic pressure, often intensified by parents and teachers, is a significant issue. Many youths lack coping tools for this pressure, leading to a negative cycle impacting both their mental health and academic performance.

Focus group discussions with parents and teachers revealed difficulties in connecting with children and adapting parenting or teaching styles to individual needs. A prevalent 'blame game' between parents and teachers creates an environment where children often lack a safe space. There's a clear need for guidance and support in creating nurturing environments.

A pilot psychoeducational workshop for parents in Kibera showed promising results in increasing mental health literacy and family life satisfaction. Similar initiatives for teachers, including digital content, have been considered to accommodate their schedules. These efforts are initial steps towards a collaborative approach to support young people's well-being in Kenya.

Parents and teachers are influential in youths' mental health. To enable them to provide the necessary support to youth, there may be a need for education and guidance. When designing solutions for youth, it is crucial that parents and teachers are not left behind.

MORE RESEARCH AND EXPENDITURE ON MENTAL HEALTH

While educational and preventive measures are crucial, research and funding are fundamental to sustain these efforts. There's a notable gap in the testing of new interventions in LMICs, leading to a reliance on Western-designed interventions that may lack cultural relevance. Nonetheless, conducting high-quality research in low-resource settings is challenging, often hindered by funding complexities and misaligned funder agendas.

Further, investment in mental health is significantly lower in LMICs compared to high-income countries. Local governments in LMICs often prioritize economic growth and other public health concerns, sidelining mental health issues.

Innovations like the Shamiri caregiving model, which utilizes lay providers for large-scale psychotherapeutic interventions, offer cost-effective alternatives to traditional mental health services. Building on such innovations and exploring new ideas is crucial for creating a society where youth mental health is prioritized and adequately supported.

CONCLUSION

Investment in youth mental health is worthwhile and important. Young people are the next generation of parents and leaders. As such, we have an opportunity to shape future societies through their lives. Thanks to the contributions of research and numerous discussions with Kenyan youth, we now have substantial information to enable us to make a difference in their lives. Here are a few things we now know.

First, one's social network of is important for their mental health. In Kenya's collectivist culture, youth interact closely with peers, parents, teachers, and other members of their communities. These interactions and the support that youth gain from their social networks often act as a buffer for challenges and stressors that they commonly encounter. In contrast, issues such as bullying, pressure from parents and teachers to excel academically, broken families, and adverse childhood experiences are associated with poorer mental health. Equipping parents and teachers to provide support for youth, and collaborating with youth to design coping strategies may be important for their mental health.

Second, as youth spend a considerable amount of their lives at school, the school environment is impactful on their mental health. A positive environment, facilitated by positive student-teacher and peer-to-peer relationships, may lead to higher school engagement and improved mental health. In contrast, broken relationships, exacerbated by a mutual distrust between parents and teachers and the use of corporal punishment, may place youth at a higher risk of developing mental health problems. The collaboration of parents and school staff is needed to enable Kenyan youth to thrive academically, socially, and mentally.

Third, youth are facing new challenges that need innovative solutions. Youth are increasingly exposed to various traumas and stressors including political and social uprisings, climate change, and economic decline. These stressors are becoming harder to ignore due to technological advancements and the upsurge of digital media. A proactive approach is needed to provide timely support for youth to enable them to cope with emerging stressors. Without this, we may see a rapid decline in youth mental health and the effects of this may persist in the long term.

Finally, youth face several barriers that prevent them from seeking help when needed. These barriers include stigma towards people with mental illness, poor mental health literacy, and inaccessible mental health services. Widespread education on mental health, a focus on simple, preventative mental health solutions, and increased investment in mental health research and service delivery may increase help seeking.

While these advancements in our understanding of youth mental health are promising, knowledge means nothing if not applied. If we hope to see real change, we must break out of the rabbit hole of seeking new knowledge while neglecting to act on what is already known. It is also clear that real change will require collective action. Researchers, parents, teachers, youth, health workers, and communities must all play their part. It is our hope that this white paper will trigger discussion and innovation for youth mental health.



Reference

1	World Health Organization (WHO). Mental health. Published October 5, 2023. Accessed October 5, 2023. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
2	Hernández-Torrano D, Ibrayeva L, Sparks J, et al. Mental Health and Well-Being of University Students: A Bibliometric Mapping of the Literature. Front Psychol. 2020;11. Accessed October 6, 2023. https://www.frontiersin.org/articles/10.3389/fpsyg.2020.01226
3	WHO. World mental health report: Transforming mental health for all. World Health Organization. Accessed April 14, 2023. https://www.who.int/publications/i/item/9789240049338
4	Health TLG. Mental health matters. Lancet Glob Health. 2020;8(11):e1352. doi:10.1016/S2214-109X(20)30432-0
5	Insel TR, Collins PY, Hyman SE. Darkness Invisible: The Hidden Global Costs of Mental Illness. Foreign Aff. 2015;94(1):127-135.
6	Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Psychiatry. 2022;9(2):137-150. doi:10.1016/S2215-0366(21)00395-3
7	Aksunger N, Vernot C, Littman R, et al. COVID-19 and mental health in 8 low- and middle-income countries: A prospective cohort study. PLOS Med. 2023;20(4):e1004081. doi:10.1371/journal.pmed.1004081
8	Kabiru C, Wekesah FM, Wado YD, Odunga S. Kenya - National Adolescent Mental Health Survey. APHRC. Published October 13, 2022. Accessed October 4, 2023. https://aphrc.org/publication/kenya- national-adolescent-mental-health-survey/
9	Awiti A, Scott B. The Kenya Youth Survey Report
10	Cavioni V, Grazzani I, Ornaghi V, Agliati A, Pepe A. Adolescents' Mental Health at School: The Mediating Role of Life Satisfaction. Front Psychol. 2021;12. Accessed October 6, 2023. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.720628
11	Handa S, Pereira A, Holmqvist G. The Rapid Decline of Happiness: Exploring Life Satisfaction among Young People across the World. Appl Res Qual Life. 2023;18(3):1549-1579. doi:10.1007/s11482-023-10153-4
12	Piko BF. Adolescent Life Satisfaction: Association with Psychological, School-Related, Religious and Socially Supportive Factors. Children. 2023;10(7):1176. doi:10.3390/children10071176
13	Memiah P, Wagner FA, Kimathi R, et al. Voices from the Youth in Kenya Addressing Mental Health Gaps and Recommendations. Int J Environ Res Public Health. 2022;19(9). doi:10.3390/ijerph19095366
14	Zając T, Perales F, Tomaszewski W, Xiang N, Zubrick SR. Student mental health and dropout from higher education: an analysis of Australian administrative data. High Educ. Published online February 24, 2023. doi:10.1007/s10734-023-01009-9
15	Alegría M, NeMoyer A, Falgas I, Wang Y, Alvarez K. Social Determinants of Mental Health: Where We Are and Where We Need to Go. Curr Psychiatry Rep. 2018;20(11):95. doi:10.1007/s11920-018-0969-9
16	Harikrishnan U, Sailo GL. Prevalence of Emotional and Behavioral Problems among School-Going Adolescents: A Cross-Sectional Study. Indian J Community Med Off Publ Indian Assoc Prev Soc Med. 2021;46(2):232-235. doi:10.4103/ijcm.IJCM_451_20
17	Galehouse P, Peterson B, Kwasky A, Raphel S. Strengthening the safety nets for child and adolescent mental health: Statement of the International Society for Psychiatric Mental Health Nurses. Arch Psychiatr Nurs. 2022;36:A2-A4. doi:10.1016/j.apnu.2021.12.008
18	Pouw NRM, Rohregger B, Schüring E, Alatinga KA, Kinuthia B, Bender K. Social protection in Ghana and Kenya through an inclusive development Lens. Complex effects and risks. World Dev Perspect. 2020;17:100173. doi:10.1016/j.wdp.2020.100173
19	Ma T, Moore J, Cleary A. Climate change impacts on the mental health and wellbeing of young people: A scoping review of risk and protective factors. Soc Sci Med. 2022;301:114888. doi:10.1016/j. socscimed.2022.114888
20	Rother HA, Hayward RA, Paulson JA, Etzel RA, Shelton M, Theron LC. Impact of extreme weather events on Sub-Saharan African child and adolescent mental health: The implications of a systematic review of sparse research findings. J Clim Change Health. 2022;5:100087. doi:10.1016/j.joclim.2021.100087

21	Mabrouk A, Mbithi G, Chongwo E, et al. Mental health interventions for adolescents in sub-Saharan Africa: A scoping review. Front Psychiatry. 2022;13:937723. doi:10.3389/fpsyt.2022.937723
22	Jörns-Presentati A, Napp AK, Dessauvagie AS, et al. The prevalence of mental health problems in sub-Saharan adolescents: A systematic review. PLOS ONE. 2021;16(5):e0251689. doi:10.1371/journal.pone.0251689
23	Ibrahim M. Mental health in Kenya: not yet Uhuru. Published online 2017.
24	Jemalel Nyavanga E. Opinions About Mental Illness Among Primary School Teacher Trainees in Kenya. Psychol Behav Sci. 2016;5(3):62. doi:10.11648/j. pbs.20160503.11
25	Mutiso VN, Musyimi CW, Nayak SS, et al. Stigma-related mental health knowledge and attitudes among primary health workers and community health volunteers in rural Kenya. Int J Soc Psychiatry. 2017;63(6):508-517. doi:10.1177/0020764017716953
26	Ogutu K. Relationship Between Parental Attitude Towards Mental Health and the Mental Health of Their Children: a Case of Komarock Estate, Nairobi County. Published online 2022.
27	Bett JC. The importance of promoting the value and the role of peer counseling among students in secondary schools. Int J Econ Manag Soc Sci. 2013;2(6):477-484.
28	Giusto A, Vander Missen MR, Kosgei G, et al. Peer-delivered Problem- solving Therapy for Adolescent Mental Health in Kenya: Adaptation for Context and Training of Peer-counselors. Res Child Adolesc Psychopathol. 2023;51(9):1243-1256. doi:10.1007/s10802-023-01075-8
29	Kroenke K, Strine TW, Spitzer RL, Williams JBW, Berry JT, Mokdad AH. The PHQ-8 as a measure of current depression in the general population. J Affect Disord. 2009;114(1-3):163-173. doi:10.1016/j.jad.2008.06.026
30	Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006;166(10):1092-1097. doi:10.1001/archinte.166.10.1092
31	Sachser C, Berliner L, Holt T, et al. International development and psychometric properties of the Child and Adolescent Trauma Screen (CATS). J Affect Disord. 2017;210:189-195. doi:10.1016/j.jad.2016.12.040
32	Ferreira T, Geiser C, Cadima J, Matias M, Leal T, Mena Matos P. The Strengths and Difficulties Questionnaire: An examination of factorial, convergent, and discriminant validity using multitrait-multirater data. Psychol Assess. 2021;33(1):45-59. doi:10.1037/pas0000961
33	Letseka M. Open Distance Learning (ODL) through the Philosophy of Ubuntu.; 2016.
34	Aubel J, Coulibaly M. Enhancing Ubuntu: Promoting Community Connectedness-The Foundation for Social Change for Girls. In: Muia D, Phillips R, eds. Connectedness, Resilience and Empowerment: Perspectives on Community Development. Community Quality-of-Life and Well-Being. Springer Nature Switzerland; 2023:1-24. doi:10.1007/978-3-031-35744-2_1
35	Ma V, Schoeneman TJ. Individualism Versus Collectivism: A Comparison of Kenyan and American Self-Concepts. Basic Appl Soc Psychol. 1997;19(2):261-273. doi:10.1207/s15324834basp1902_7
36	Kenyatta J. Facing Mount Kenya. Knopf Doubleday Publishing Group; 1965.
37	Osborn TL, Venturo-Conerly KE, Arango G. S, et al. Effect of Shamiri Layperson-Provided Intervention vs Study Skills Control Intervention for Depression and Anxiety Symptoms in Adolescents in Kenya: A Randomized Clinical Trial. JAMA Psychiatry. 2021;78(8):829. doi:10.1001/ jamapsychiatry.2021.1129
38	Venturo-Conerly KE, Johnson NE, Osborn TL, et al. Long-term health outcomes of adolescent character strength interventions: 3- to 4-year outcomes of three randomized controlled trials of the Shamiri program. Trials. 2022;23(1):443. doi:10.1186/s13063-022-06394-7
39	Venturo-Conerly KE, Osborn TL, Wasil AR, et al. Testing the effects of the Shamiri Intervention and its components on anxiety, depression, wellbeing, and academic functioning in Kenyan adolescents: study protocol for a five-arm randomized controlled trial. Trials. 2021;22(1):829. doi:10.1186/s13063-021-05736-1
40	Adverse Childhood Experiences and associated correlates among Adolescents at a Rural Private High School in Kenya. Accessed October 26, 2023. https://repository.tangaza.ac.ke/items/b852d6b8-6d04-4f1c-9887- 9e7fa3307ec8

Reference

41	Kumar M, Amugune B, Madeghe B, et al. Mechanisms associated with maternal adverse childhood experiences on offspring's mental health in Nairobi informal settlements: a mediational model testing approach. BMC Psychiatry. 2018;18(1):381. doi:10.1186/s12888-018-1953-y
42	Action urged as national survey finds half of Kenyan children suffer violence. Accessed October 31, 2023. https://www.unicef.org/kenya/press-releases/Action-urged-as-national-survey-finds-half-of-Kenyan-children-suffer-violence
43	Article 53 of the Constitution. Accessed October 31, 2023. https://evaw-global-database.unwomen.org/en/countries/africa/kenya/2010/article-53-of-the-constitution
44	Divorce and It's Effect on Children in Kenya. Wamaitha Waweru Advocates. Accessed October 26, 2023. https://www.wamaithawaweruadvocates.com/divorce-and-its-effect-on-children-in-kenya/
45	Kools S, Paul SM, Jones R, Monasterio E, Norbeck J. Health profiles of adolescents in foster care. J Pediatr Nurs. 2013;28(3):213-222. doi:10.1016/j.pedn.2012.08.010
46	Blumer H. Symbolic Interactionism: Perspective and Method. University of California Press; 1986.
47	Hoyer KM, Sparks D, Ralph J. Instructional Time for Third- and Eighth- Graders in Public and Private Schools: School Year 2011-12.
48	OECD. Education at a Glance 2019: OECD Indicators. Organisation for Economic Co-operation and Development; 2019. Accessed October 25, 2023. https://www.oecd-ilibrary.org/education/education-at-a-glance-2019_f8d7880d-en
49	Barker G, Olukoya A, Aggleton P. Young people, social support and help-seeking. Int J Adolesc Med Health. 2005;17(4):315-335. doi:10.1515/ijamh.2005.17.4.315
50	Ye Z, Wu D, He X, et al. Meta-analysis of the relationship between bullying and depressive symptoms in children and adolescents. BMC Psychiatry. 2023;23(1):215. doi:10.1186/s12888-023-04681-4
51	Fredricks JA, Blumenfeld PC, Paris AH. School Engagement: Potential of the Concept, State of the Evidence. Rev Educ Res. 2004;74(1):59-109. doi:10.3102/00346543074001059
52	Degenhard J. Africa: social media users 2019-2028. Statista. Published August 14, 2023. Accessed October 25, 2023. https://www.statista.com/forecasts/1145315/social-media-users-in-africa
53	Ortiz-Ospina E, Roser M. The rise of social media. Our World Data. Published online May 25, 2023. Accessed October 25, 2023. https://ourworldindata.org/rise-of-social-media
54	Gupta C, Jogdand DrS, Kumar M. Reviewing the Impact of Social Media on the Mental Health of Adolescents and Young Adults. Cureus. 14(10):e30143. doi:10.7759/cureus.30143
55	Steinsbekk S, Wichstrøm L, Stenseng F, Nesi J, Hygen BW, Skalická V. The impact of social media use on appearance self-esteem from childhood to adolescence – A 3-wave community study. Comput Hum Behav. 2021;114:106528. doi:10.1016/j.chb.2020.106528
56	van den Eijnden RJJM, Lemmens JS, Valkenburg PM. The Social Media Disorder Scale. Comput Hum Behav. 2016;61:478-487. doi:10.1016/j. chb.2016.03.038
57	Krause HV, Baum K, Baumann A, Krasnova H. Unifying the detrimental and beneficial effects of social network site use on self-esteem: a systematic literature review. Media Psychol. 2021;24(1):10-47. doi:10.108 0/15213269.2019.1656646
58	McCrae N, Gettings S, Purssell E. Social Media and Depressive Symptoms in Childhood and Adolescence: A Systematic Review. Adolesc Res Rev. 2017;2(4):315-330. doi:10.1007/s40894-017-0053-4
59	Gupta M, Sharma A. Fear of missing out: A brief overview of origin, theoretical underpinnings and relationship with mental health. World J Clin Cases. 2021;9(19):4881-4889. doi:10.12998/wjcc.v9.i19.4881
60	Taifel H, Turner JC, Worchel S, Austin WG. Psychology of intergroup relations. Chic Nelson-Hall. Published online 1986:7-24.

61	Shaw JA. Children, Adolescents and Trauma. Psychiatr Q. 2000;71(3):227-243. doi:10.1023/A:1004630127000
62	Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. J Consult Clin Psychol. 2000;68(5):748-766. doi:10.1037/0022-006X.68.5.748
63	Taylor LK, Weems CF. What do Youth Report as a Traumatic Event? Toward a Developmentally Informed Classification of Traumatic Stressors. Psychol Trauma Theory Res Pract Policy. 2009;1(2):91-106. doi:10.1037/a0016012
64	Karsberg SH, Elklit A. Victimization and PTSD in A Rural Kenyan Youth Sample. Clin Pract Epidemiol Ment Health. 2012;8(1):91-101. doi:10.2174/1745017901208010091
65	Miché M, Hofer PD, Voss C, et al. Mental disorders and the risk for the subsequent first suicide attempt: results of a community study on adolescents and young adults. Eur Child Adolesc Psychiatry. 2018;27(7):839-848. doi:10.1007/s00787-017-1060-5
66	Warshaw MG, Fierman E, Pratt L, et al. Quality of life and dissociation in anxiety disorder patients with histories of trauma or PTSD. Am J Psychiatry. 1993;150(10):1512-1516. doi:10.1176/ajp.150.10.1512
67	Conflict Watchlist 2023. ACLED. Published February 8, 2023. Accessed October 25, 2023. https://acleddata.com/conflict-watchlist-2023/
68	Invo. The Maandamano Long-Term Effects on Democracy and Social Cohesion. Involvement. Published August 2, 2023. Accessed October 25, 2023. https://involvement.co.ke/the-maandamano-long-term-effects-on-democracy-and-social-cohesion/
69	Mutura J. Learning in schools disrupted as protestors take to the streets. The Standard. Published March 20, 2023. Accessed October 25, 2023. https://www.standardmedia.co.ke/health/national/article/2001469291/learning-in-schools-disrupted-as-protestors-take-to-the-streets
70	Ni MY, Kim Y, McDowell I, et al. Mental health during and after protests, riots and revolutions: A systematic review. Aust N Z J Psychiatry. 2020;54(3):232-243. doi:10.1177/0004867419899165
71	Atwoli L, Muhia J, Merali Z. Mental health and climate change in Africa. BJPsych Int. 2022;19(4):86-89. doi:10.1192/bji.2022.14
72	Climate Risk Profile: Kenya. Published July 27, 2018. Accessed October 27, 2023. https://www.climatelinks.org/resources/climate-risk-profile-kenya
73	Frontiers The Impact of Climate Change on Mental Health: A Systematic Descriptive Review. Accessed October 26, 2023. https://www.frontiersin.org/articles/10.3389/fpsyt.2020.00074/full#B162
74	Torres JM, Casey JA. The centrality of social ties to climate migration and mental health. BMC Public Health. 2017;17(1):600. doi:10.1186/s12889-017-4508-0
75	Wu T, Jia X, Shi H, et al. Prevalence of mental health problems during the COVID-19 pandemic: A systematic review and meta-analysis. J Affect Disord. 2021;281:91-98. doi:10.1016/j.jad.2020.11.117
76	New Global Burden of Disease analyses show depression and anxiety among the top causes of health loss worldwide, and a significant increase due to the COVID-19 pandemic The Institute for Health Metrics and Evaluation. Accessed November 20, 2023. https://www.healthdata.org/news-events/insights-blog/acting-data/new-global-burden-disease-analyses-show-depression-and
77	Mbithi G, Mabrouk A, Sarki A, et al. Mental health and psychological well-being of Kenyan adolescents from Nairobi and the Coast regions in the context of COVID-19. Child Adolesc Psychiatry Ment Health. 2023;17:63. doi:10.1186/s13034-023-00613-y
78	Pinchoff J, Friesen EL, Kangwana B, et al. How Has COVID-19-Related Income Loss and Household Stress Affected Adolescent Mental Health in Kenya? J Adolesc Health. 2021;69(5):713-720. doi:10.1016/j.jadohealth.2021.07.023
79	Lloyd K, Schubotz D, Roche R, Manzi J, McKnight M. A Mental Health Pandemic? Assessing the Impact of COVID-19 on Young People's Mental Health. Int J Environ Res Public Health. 2023;20(16):6550. doi:10.3390/ ijerph20166550
80	Iraki XN. Inflation is rising in Kenya: here's why, and how to fix it. The Conversation. Published July 19, 2022. Accessed October 26, 2023. http://theconversation.com/inflation-is-rising-in-kenya-heres-why-and-how-to-fix-it-186479

100

0366(14)70312-8

Reference Inflation Rates | CBK. Accessed October 26, 2023. https://www. centralbank.go.ke/inflation-rates/ Inflation in Kenya. FocusEconomics. Published October 5, 2023. 82 Accessed October 26, 2023. https://www.focus-economics.com/ country-indicator/kenya/inflation/ GoK. Notice on price stability target. https://www.treasury.go.ke/wp-83 content/uploads/2022/08/NOTICE-ON-PRICE-STABILITY-TARGET.pdf Guan N, Guariglia A, Moore P, Xu F, Al-Janabi H. Financial stress 84 and depression in adults: A systematic review. PLoS ONE. 2022;17(2):e0264041. doi:10.1371/journal.pone.0264041 Thompson MN, Nitzarim RS, Her P, Sampe M, Diestelmann J. Financial Stress and Work Hope Beliefs Among Adolescents. J Career Assess. 85 2017;25(2):254-267. doi:10.1177/1069072715621517 Ryu S, Fan L. The Relationship Between Financial Worries and 86 Psychological Distress Among U.S. Adults. J Fam Econ Issues. 2023;44(1):16-33. doi:10.1007/s10834-022-09820-9 Wolicki SB, Bitsko RH, Cree RA, et al. Mental Health of Parents and 87 Primary Caregivers by Sex and Associated Child Health Indicators. Advers Resil Sci. 2021;2(2):125-139. doi:10.1007/s42844-021-00037-7 Casali M. How Parents Affect Children's Mental Health. Turnbridge. Published December 28, 2022. Accessed October 24, 2023. https:// www.turnbridge.com/news-events/uncategorized/how-parentsaffect-childrens-mental-healt/ What Impact Does Parental Mental Health Have on Children? Regis College Online. Published November 17, 2020. Accessed October 24, 89 2023. https://online.regiscollege.edu/blog/parental-mental-health/ Even Teenagers Are Worried About Inflation Now. Money. Accessed 90 October 26, 2023. https://money.com/teenagers-worried-aboutinflation/ Saxena S, Thornicroft G, Knapp M, Whiteford H. Resources for mental health: scarcity, inequity, and inefficiency. Lancet Lond Engl. 2007;370(9590):878-889. doi:10.1016/S0140-6736(07)61239-2 GHO | By category | Human resources - Data by country. WHO. 92 Accessed October 26, 2023. https://apps.who.int/gho/data/node.main. MHHR?lang%20=%20en Javed A, Lee C, Zakaria H, et al. Reducing the stigma of mental health 93 disorders with a focus on low- and middle-income countries. Asian J Psychiatry. 2021;58:102601. doi:10.1016/j.ajp.2021.102601 Barke A, Nyarko S, Klecha D. The stigma of mental illness in Southern Ghana: attitudes of the urban population and patients' views. Soc 94 Psychiatry Psychiatr Epidemiol. 2011;46(11):1191-1202. doi:10.1007/s00127-010-0290-3 Ndetei DM, Mutiso V, Maraj A, Anderson KK, Musyimi C, McKenzie K. Stigmatizing attitudes toward mental illness among primary school 95 children in Kenya. Soc Psychiatry Psychiatr Epidemiol. 2016;51(1):73-80. doi:10.1007/s00127-015-1090-6 Mutiso VN, Musyimi CW, Nayak SS, et al. Stigma-related mental health knowledge and attitudes among primary health workers and community health volunteers in rural Kenya. Int J Soc Psychiatry. 2017;63(6):508-517. doi:10.1177/0020764017716953 Marangu E, Mansouri F, Sands N, et al. Assessing mental health literacy 97 of primary health care workers in Kenya: a cross-sectional survey. Int J Ment Health Syst. 2021;15(1):55. doi:10.1186/s13033-021-00481-z Ndetei DM, Mutiso V, Osborn T. Moving away from the scarcity fallacy: 98 three strategies to reduce the mental health treatment gap in LMICs. World Psychiatry. 2023;22(1):163-164. doi:10.1002/wps.21054 Fazel M, Hoagwood K, Stephan S, Ford T. Mental health interventions

in schools 1. Lancet Psychiatry. 2014;1(5):377-387. doi:10.1016/S2215-

Venturo-Conerly K, Roe E, Wasil A, et al. Training and Supervising Lay

Providers in Kenya: Strategies and Mixed-Methods Outcomes. Cogn Behav Pract. 2022;29(3):666-681. doi:10.1016/j.cbpra.2021.03.004

101	Aguirre Velasco A, Cruz ISS, Billings J, Jimenez M, Rowe S. What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review. BMC Psychiatry. 2020;20(1):293. doi:10.1186/s12888-020-02659-0
102	Tedstone Doherty D, Kartalova-O'Doherty Y. Gender and self-reported mental health problems: predictors of help-seeking from a general practitioner. Br J Health Psychol. 2010;15(Pt 1):213-228. doi:10.1348/135910709X457423
103	Kessler RC, Brown RL, Broman CL. Sex differences in psychiatric help-seeking: evidence from four large-scale surveys. J Health Soc Behav. 1981;22(1):49-64.
104	Ang R, Lim KM, Tan AG, Yau T. Effects of gender and sex role orientation on help-seeking attitudes. Curr Psychol N B NJ. 2004;23:203-214. doi:10.1007/s12144-004-1020-3
105	Albert PR. Why is depression more prevalent in women? J Psychiatry Neurosci JPN. 2015;40(4):219-221. doi:10.1503/ jpn.150205
106	Tracking the impact of COVID-19 on adolescent girls in Kenya UNICEF Kenya. Published August 9, 2021. Accessed October 25, 2023. https://www.unicef.org/kenya/reports/ tracking-impact-covid-19-adolescent-girls-kenya
107	Campbell OLK, Bann D, Patalay P. The gender gap in adolescent mental health: A cross-national investigation of 566,829 adolescents across 73 countries. SSM - Popul Health. 2021;13:100742. doi:10.1016/j.ssmph.2021.100742
108	Flowe HD, Rockowitz S, Rockey J, et al. Sexual and other forms of violence During the COVID-19 pandemic emergency in Kenya: Patterns of Violence and Impacts on Women and Girls. Published online July 27, 2020. doi:10.31234/osf.io/eafwu
109	Seedat S, Scott KM, Angermeyer MC, et al. Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. Arch Gen Psychiatry. 2009;66(7):785-795. doi:10.1001/archgenpsychiatry.2009.36
110	UNICEF. IMPACT OF COVID-19 ON ADOLESCENT WELLBEING AND MENTAL HEALTH. Accessed November 17, 2023. https://www.unicef.org/laos/media/4816/file/IMPACT%20OF%20COVID-19%20ON%20ADOLESCENT%20WELLBEING%20AND%20MENTAL%20HEALTH.pdf
111	MoH. Mental Health Task Force Report - Mental Health and Wellbeing Towards Happiness & National Prosperity. The Taskforce on Mental Health. Published October 5, 2023. Accessed October 5, 2023. https://mental.health.go.ke/download/mental-health-and-wellbeing-towards-happiness-national-prosperity-a-report-by-the-taskforce-on-mental-health-in-kenya/
112	Mutura J. Mental health crisis requires urgent action, warn experts. The Standard. Accessed October 27, 2023. https://www.standardmedia.co.ke/sports/health-science/article/2001473901/mental-health-crisis-requires-urgent-action-warn-experts
113	Kiilu C, Musembi J, Mukami D, Mwenda C, Opanga Y, Kimathi G. Disparities in Knowledge, Attitude and Practices on Mental Health among Healthcare Workers and Community members in Meru County, Kenya. Published online March 10, 2022:2022.03.09.22270872. doi:10.1101/2022.03.09.22270872
114	Marangu E, Sands N, Rolley J, Ndetei D, Mansouri F. Mental health care in Kenya: Exploring optimal conditions for capacity building. Afr J Prim Health Care Fam Med. 2014;6. doi:10.4102/phcfm.v6i1.682

115	Saxena S, Thornicroft G, Knapp M, Whiteford H. Resources for mental health: scarcity, inequity, and inefficiency. Lancet Lond Engl. 2007;370(9590):878-889. doi:10.1016/S0140-6736(07)61239-2
116	Marangu E, Mansouri F, Sands N, et al. Assessing mental health literacy of primary health care workers in Kenya: a cross-sectional survey. Int J Ment Health Syst. 2021;15(1):55. doi:10.1186/s13033-021-00481-z
117	Ndetei DM, Musyimi CW, Ruhara RW, Musau AM, Mutiso VN. Education About Mental Health and Illness: Innovative Approach for the Kenyan Context. In: Hermans MHM, Chay-Hoon T, Pi E, eds. Education about Mental Health and Illness. Mental Health and Illness Worldwide. Springer; 2019:213-230. doi:10.1007/978-981-10-2350-7_12
118	What Is Positive Psychology & Why Is It Important? Accessed October 30, 2023. https://positivepsychology. com/what-is-positive-psychology-definition/
119	BARANOV V, HAUSHOFER J, JANG C. Can Positive Psychology Improve Psychological Well-Being and Economic Decision- Making? Experimental Evidence from Kenya. Econ Dev Cult Change. 2020;68(4):1345-1376. doi:10.1086/702860
120	Seligman MEP. Positive psychology, positive prevention, and positive therapy. In: Handbook of Positive Psychology. Oxford University Press; 2002:3-9.
121	Osborn TL, Wasil AR, Venturo-Conerly KE, Schleider JL, Weisz JR. Group Intervention for Adolescent Anxiety and Depression: Outcomes of a Randomized Trial with Adolescents in Kenya.
122	(8) (PDF) A qualitative exploration of participants' preferred elements of the 4-week, youth-led, youth-focused, group-based Shamiri intervention: A brief overview. ResearchGate. Accessed November 22, 2023. https://www.researchgate.net/publication/370549373_A_qualitative_exploration_of_participants'_preferred_elements_of_the_4-week_youth-led_youth-focused_group-based_Shamiri_intervention_A_brief_overview
123	Memiah P, Wagner FA, Kimathi R, et al. Voices from the Youth in Kenya Addressing Mental Health Gaps and Recommendations. Int J Environ Res Public Health. 2022;19(9). doi:10.3390/ijerph19095366
124	Launch of the UNESCO 2021 Kenya National Study Report on Out of School Children - Kenya ReliefWeb. Published October 29, 2021. Accessed October 31, 2023. https://reliefweb.int/report/kenya/launch-unesco-2021-kenya-national-study-report-out-school-children
125	Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med. 1998;14(4):245-258. doi:10.1016/s0749-3797(98)00017-8
126	Kasser T, Ryan R. Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. Life Goals Well-Being. Published online January 1, 2001.
127	Zimet GD, Powell SS, Farley GK, Werkman S, Berkoff KA. Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. J Pers Assess. 1990;55(3-4):610- 617. doi:10.1080/00223891.1990.9674095

128	Tambling RR, Russell BS, Park CL, et al. Measuring Cumulative Stressfulness: Psychometric Properties of the COVID-19 Stressors Scale. Health Educ Behav. 2021;48(1):20-28. doi:10.1177/1090198120979912
129	Clayton S, Karazsia BT. Development and validation of a measure of climate change anxiety. J Environ Psychol. 2020;69:101434. doi:10.1016/j.jenvp.2020.101434
130	Puglia DR. Social Media Use and its Impact on Body Image: The Effects of Body Comparison Tendency, Motivation for Social Media Use, and Social Media Platform on Body Esteem in Young Women.
131	Ricard BJ, Marsch LA, Crosier B, Hassanpour S. Exploring the Utility of Community-Generated Social Media Content for Detecting Depression: An Analytical Study on Instagram. J Med Internet Res. 2018;20(12):e11817. doi:10.2196/11817
132	Dubow EF, Boxer P, Huesmann LR, et al. Exposure to Conflict and Violence across Contexts: Relations to Adjustment among Palestinian Children. J Clin Child Adolesc Psychol Off J Soc Clin Child Adolesc Psychol Am Psychol Assoc Div 53. 2010;39(1):103-116. doi:10.1080/15374410903401153
133	Denckla CA, Ndetei DM, Mutiso VN, et al. Psychometric properties of the Ndetei-Othieno-Kathuku (NOK) Scale: A mental health assessment tool for an African setting. J Child Adolesc Ment Health. 2017;29(1):39-49. doi:10.2989/1728 0583.2017.1310729

Appendix 1: Instruments used

Patient Health Questionnaire ²⁹	We used this instrument to assess depression levels. It was present in all the versions of the surveys
Generalized Anxiety Disorder Screener 30	This instrument screened the severity of generalized anxiety disorder. It was present in all the versions of the surveys
Sociodemographic characteristics	This instrument collected demographic characteristics of the population. It was present in all the versions of the surveys
Child and Youth Trauma Screen (CATS) 31	This tool assessed the prevalence of Post-Traumatic Stress. Very high scores indicated possible Post-Traumatic Stress Disorder (PTSD). We only used the second part of the Child and Youth Trauma Screen (CATS) and omitted the impairment question
Strengths and Difficulties Questionnaire (SDQ) 32	This instrument assessed the personality attributes of the students with a particular interest in ADHD
Bullying	This instrument sought to establish if a student was a victim of bullying, who the perpetrators were and in which environment they were bullied.
Adverse Childhood Experiences Questionnaire (ACE) 125	This tool assessed different types of childhood trauma, which can have lasting impacts on mental health
Aspirations Index(AI) 126	We used this index to assess the levels of importance of some extrinsic and intrinsic life aspirations
Multidimensional Scale of Perceived Social Support (MSPSS) ¹²⁷	Here we used the family sub-scale of the Multidimensional Scale of Perceived Social Support (MSPSS) to assess individual feelings of social support from the family
Financial Strain Scale (FSS) 85	This tool assessed individual levels of financial stress and hardship
COVID 19 Stressors Scale 128	This scale assessed the severity of stress related to the COVID-19 pandemic
Climate Change Anxiety Scale 129	We picked out specific items from all the 4 subscales of this tool to assess emotional response to climate change
Social Media Scale 56,130,131	This instrument combined items from multiple tools to assess patterns of social media use, their effect on body image and social media disorder
Political and Social Stress Scale 132	This instrument assessed stress caused by exposure to conflict or violence from political or social contexts
Ndetei-Othieno-Kathuku scale(NOK) 133	We used this locally developed instrument to measure depression and anxiety. Allowing us to compare it with instruments developed in the west
Service use questionnaire	This instrument sought to understand if youths felt like they needed help, from whom they would seek help, and the obstacles involved while seeking help

