Eximia Journal

(ISSN 2784-0735)

Vol. 13

2024

Eximia Journal
Vol. 13, 1050-1065, January, 2024
ISSN: 2784-0735
www.eximiajournal.com

Assessment of the severity of anxiety, depression, substance use, and resilience of children and youths aged 10–24 years in the South West Region of Cameroon

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Abstract. Background: Many youths in Cameroon and in the South West region of the country face socio-economic hardships that have affected their mental health and resilience. This study aimed at delving into these critical areas and explore the interplay between anxiety, depression, substance use, and resilience in the children and youth of the South West Region, Cameroon. Materials and method: This study was a cross-sectional study conducted for a period of 14 months. Consecutive sampling was used to select the participants wherein peer educators with lived experience administered structured questionnaires to youths in other to assess the severity of anxiety, depression, substance use, and resilience using standardized WHO scales. Data obtained from the participants were coded, entered into a data collection form designed with Kobo collect tool then into Microsoft Excel 2016 and analyzed using Statistical Package for the Social Sciences, version 25. Results: A total of 1,173 participants were recruited with an average age of 18.32 years. The overall prevalence of mental disorders was 73.1%. The results showed that 74 (6.3%) had severe anxiety, 207 (17.6%) had moderate anxiety, and the and majority 518 (44.2%) were normal. For suicide screening, 79.5% were normal, while 20.5% had suicidal thoughts. When screened for depression, 19 (1.6%) had severe depression and the majority of participants had minimal depression with a with a percentage of 831 (70.8%). The overall level of low resilience was 91.0% (1,068). Logistic regression analysis showed that age group and location had significant associations (P-value <0.05) with the level of resilience. Pearson's correlation analysis revealed a significant but weak correlation between anxiety, resilience, depression status and substance status and substance use with correlation coefficients of 0.245, 0.079 and 0.254 respectively. Conclusion: Anxiety, depression and substance use disorders are predominantly the mental health problems amongst youths 10 – 24 years in the Southwest Region of Cameroon. Severe anxiety in youth is linked to an increased risk of developing other mental health issues, such as depression and substance use disorders. The consequence of depression amongst youths if left unattended to can lead to increased likelihood of persistent mental health problems in adulthood.

Keywords. Anxiety, Depression, Resilience, Severity, Youths

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Vol. 13, 1050-1065, January, 2024
ISSN: 2784-0735
www.eximiajournal.com

Background

Poverty, cultural norms, inadequate education, and religious practices hinder children's mental health support. In many African countries, struggling governments neglect or rely on religious interventions for specialized care [1]. According to world health organization, esource shortages in Africa create a mental health treatment gap for children and adolescents, affecting 10-20% globally[2]. Half of all mental illnesses begin by age 14, though most go undetected and untreated. About 70% can be diagnosed before age 25, making adolescent years crucial for mental health care. Mental disorders are three times more common in young women (26.0%) than in men (9.1%). Additionally, 70% of children with autism have at least one mental disorder [3]. Mental illnesses often go under-diagnosed due to misattribution of symptoms to spiritual or behavioral issues, and fear of stigma or abuse. The World Health Organization estimates that 6-8% of young people live with depression. In Malawi, research shows a 30% prevalence rate of mental health issues among attendees of Matawade Health Centre, and 19% at other clinics[4]. In Tanzania, the 2008 Global School-Based Student Health Survey revealed that 23.6% of students experienced daily feelings of sadness, loneliness, or hopelessness, and 11.2% had suicidal thoughts. Similar rates were observed in Nigeria and Kenya. [5]. Psychotherapists on Tik Tok have also attracted millions of followers and likes over the past year given the prevalence of mental health problems in children and young people [1].

COVID-19 has worsened the mental health issues among children and youths in Sub-Saharan Africa. [6]. The WHO reports that the COVID-19 pandemic disrupted or halted critical mental health services in 93% of countries, while the demand for these services continued to rise [7]. The most common mental illnesses among young people in Africa are anxiety, depression and suicidal ideas [4]. 75% of young people in Africa with mental health issues don't receive help, and 34% are not accepted into treatment. As needs grow, children resort to self-coping due to long waiting lists. Only 27.9% of those with both learning disabilities and mental health problems access services. [8].

Mental health issues have had a global impact on children, particularly affecting those with special needs or disabilities. Children who relied on social interactions for mental development faced significant setbacks when COVID-19 protocols were enforced worldwide by the World Health Organization [9]. Part from COVID-19, factors like entertainment, social media, and bullying have worsened children's mental health. Early access to mobile phones and the internet, including social media, has drastically changed children's lives, fostering significant social networking and increased interaction among young people in Africa [10]. Depression, anxiety, substance use, conduct disorders, and ADHD lead to health-related disabilities in youths. In Cameroon, commonly abused substances include cannabis (58.54%), tramadol (44.62%), and alcohol. Substance use among youths results in negative outcomes like poor academic performance, mental health issues, risky behaviors, and social problems including violence and criminality [11].

A systematic review found high rates of anxiety and depression among adolescents, impacting their resilience. In Cameroon, socio-economic hardships like poverty, unemployment, and limited education contribute to mental health challenges, causing hopelessness and despair that hinder their ability to cope with crises [12]. Unaddressed mental health issues persist into adulthood, affecting relationships and quality of life. Data gaps in countries like Cameroon hinder effective interventions. Limited, age-non-specific data prevents accurate problem estimation, complicating planning and budgeting. Consequently, the true burden and severity of mental disorders, including anxiety, depression, and substance use, remain largely unknown.

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In Cameroon's South West Region, there is growing concern over the mental well-being of youths aged 10-24. This study aims to assess anxiety, depression, substance use, and resilience to understand their overall impact on development and mental health.

2.0. Main objective

To assess the severity of anxiety, depression, substance use, and resilience of children and youths aged 10-24 years in the South West Region of Cameroon.

2.1. Specific objectives

1. To determine the severity of anxiety, depression and substance use disorders in children and youth aged 10-24 years.
2. To determine children and youth resilience aged 10-24 years in the South West region of Cameroon.
3. To examine the relationship between anxiety, depression, substance use, and resilience amongst children and youths of 10 – 24 years.

Materials and method

Study setting and period:

The study was conducted in four towns (Buea, Limbe, Mutengene and Tiko) in Fako Division, Southwest Region of Cameroon over a 16-month period (May 2023 to August 2024). These towns were purposely selected because of their high population densities. Fako Division is one of the six divisions in the South West Region of Cameroon with Limbe as its administrative capital.

Research design

A community based quantitative cross-sectional study was conducted using a structured questionnaires administered to children and youths aged 10 to 24 years by peer educators with lived experience in mental health in Buea, Limbe 1, Mutengene, and Tiko.

Sample Size

The sample size was determined using the Cochran's formula [$n = (z\alpha/2)^2$ p(1-p)/d^2], an estimated proportion (p) on the severity of anxiety was taken as 24.3%, from a study carried out on mental health disorders in Northern Cameroon [13], 95% confidence level, 3% margin of error. This gave a minimum sample size of, n= $(1.96)^2 \times 0.24(1-0.75)/ (0.03)^2$ =785. A 10% contingency addition was done on the sample size for non-response, the final sample size was 872 participant [14]

Sampling method

Consecutive sampling was use to select the children and youths aged 10 to 24 years in Buea, Limbe I, Tiko and Mutengene into the research study.

Inclusion and exclusion criteria

Children and youths aged 10 to 24 years in Buea, Limbe I Tiko who were present and gave their consent or assent (obtained from the parents or guardian) at the time of the study were included in the study. All incompletely filled questionnaires and participants with illnesses which would interfere with providing accurate information were excluded.

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Data collection methods

Structured questionnaires were used to assess the severity of anxiety, depression, substance use, and resilience using standardized World Health Organization scales such as; the Generalized Anxiety Disorder 7-item scale (GAD-7), the Patient Health Questionnaire-9 (PHQ-9), CAGE (Cut down, Annoyed, Guilty, Eye-opener) substance abuse screening and Brief Resilience Scale (BRS) to screen anxiety, depression, substance use and resilience respectively.

Data management

Filled questionnaires were cross checked for completeness and data was entered into Kobo collect, and exported to SPSS version 25 for analysis. Data was saved using a secured password to prevent unauthorized access.

Data Analysis

The prevalence of anxiety, depression and substance use was considered to be the prevalence of mental health disorders. Anxiety was assessed using 7 statements with a four-point Likert scale (GAD-7 scale), where 0=not at all, 1= several days, 2= over the half days, and 3= nearly every day. The scores were calculated for each respondent, with the total scores ranging from 0–21 points. Anxiety levels were categorized as follows: 0-4 points (normal), 5-9 (mild), 10-14 (moderate), and 15-21(severe). The CAGE scale contained four questions which were used to assess substance use, each "yes" answer had a score of 1 while each "no" answer had a score of 0, the total scores ranged from 0-4 points. Respondents with 1 point had no problem while those who scored ≥2 points had a problem with substance use. For depression screening, the scores were calculated for each respondent, with the total scores ranging from 0–27 points. The respondents had minimal depression if they scored (0-4) points, mild depression (5-9) points, Moderate depression (10-19), severe (20-27) points. Resilience was assessed using a 6-item scale with a 5-point Likert scale, ranging from 1(strongly disagree) to 5 (strongly agree). Total scores ranged from 6 to 30, with higher scores indicating greater resilience. Respondents had low resilience if they scored ≤15, normal resilience if they scored above 15. A Pearson correlation was done between Substance use, Anxiety, Suicide thoughts and depression status to measure the relationship between the categorical variables.

Ethical Considerations

Ethical clearance was obtained from the Institutional Review Board at the Faculty of Health Science, University of Buea. Informed consent and assent were obtained from children and youths, according to their ages, with guardian involvement where necessary.

Results

Socio-demographic characteristics.

A total of 1,173 study participants were successfully recruited for this study. The mean age of the respondents were (18.32±3.71)years. The highest proportion of the study participants 526 (44.8%) were within the age group 15-19 years, with 626 (55.9%) of them being females, 876(74.7%) students, and based on the displacement status, a majority with 803 (68.5%) were from the host population, and lastly, 447(38.1%) of the study participants were from the Buea locality, as illustrated on Table 1 below.

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Table 1: Demographic characteristics of the study population.

Variable	Frequency (n=1173)	Percentage (%)
Age group (18.32±3.71)years		
10-14	284	24.2
15-19	526	44.84
20-24	363	30.96
Total	**1,173**	**100.0**
Gender		
Male	517	44.1
Female	656	55.9
Total	**1,173**	**100.0**
Locality (Community)		
Buea	447	38.11
Limbe	404	34.44
Tiko	183	15.6
Mutengene	139	11.85
Total	**1,173**	**100.0**
Occupation		
Student	8 76	74.7
School dropout	137	11.7
Others	160	13.6
Total	**1,173**	**100.0**
Displacement status		
Internally displaced person	273	23.3
Host population	803	68.5
Refugee	48	4.1
Returnee	49	4.2
Total	**1,173**	**100.0**

Assessing the level of severity (prevalence) of anxiety.

Overall, the results showed that 6.3% (74) of the respondents have severe anxiety. With a total of 55.8% (655) of the study participants suffering from anxiety in general, with 17.6% (207) of them having moderate anxiety, and a majority with normal anxiety 44.2% (518) as illustrated on (Figure 1) below.

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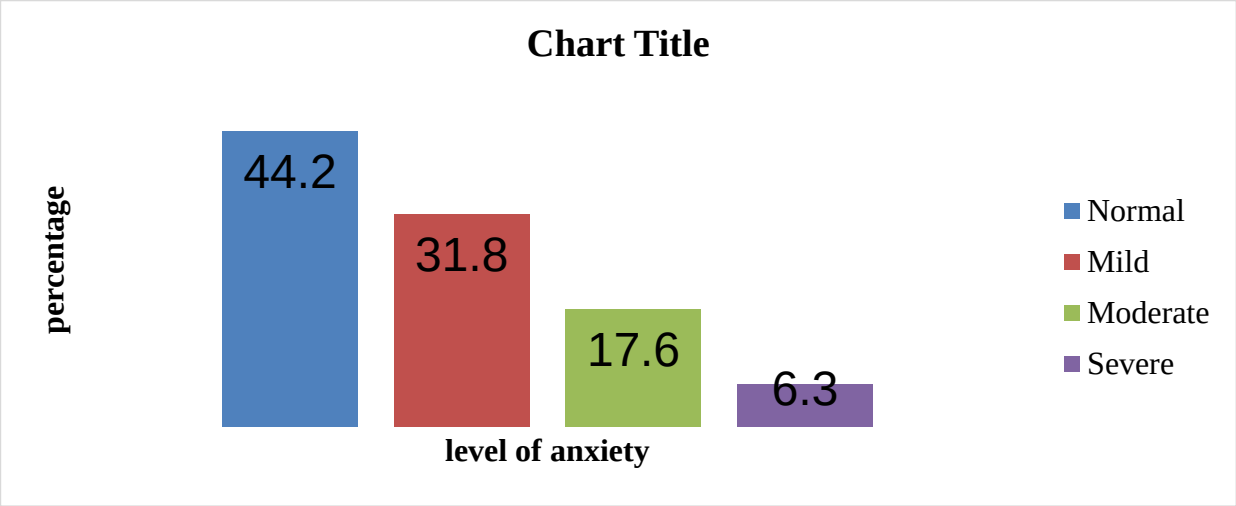

Figure 1: Distribution of participants based on the Prevalence of Anxiety.

Assessing the level of prevalence of Substance Use Disorders.

Based on the survey of the rate of substance use, the result showed that 69.4% (814) had no substance use disorder (normal), while a good number of participants were using substance with a prevalence of 30.6% (359) ((figure 2).

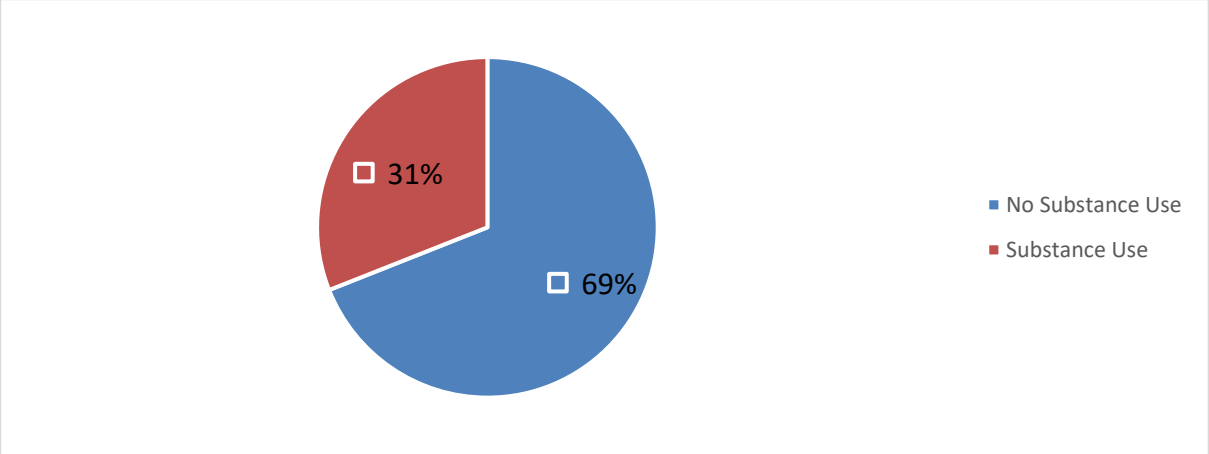

Figure 2: Distribution of participants based on the prevalence of substance use disorders.

Assessing the level of Severity of depression.

Overall, the result showed that only 1.6% (19) of the study participants were suffering from severe depression, 18.7% (343) were mildly depressed, 104 (8.9%) were moderately depressed, and a majority 70.8% (831) with minimal depression (Figure 4).

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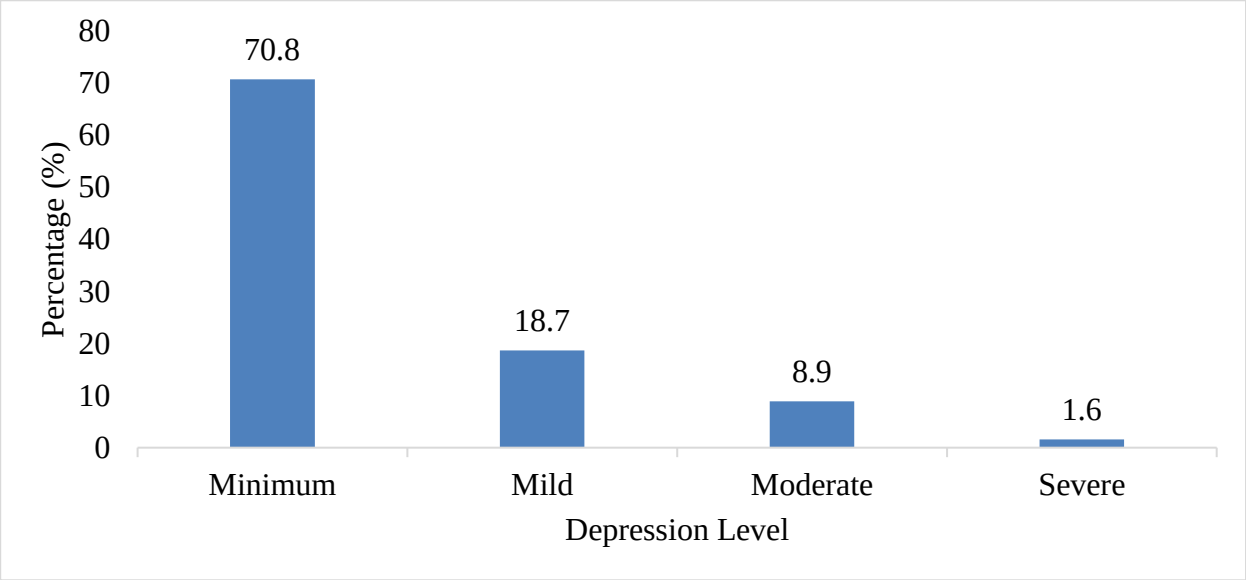

Figure 3: Distribution of participants based on Prevalence of depression.

The overall level of resilience among participants.

Out of the 1,173 participants of this study, it was noted that, a sum total of 91.0% (1,068) of the study participants had a low level of resilience.

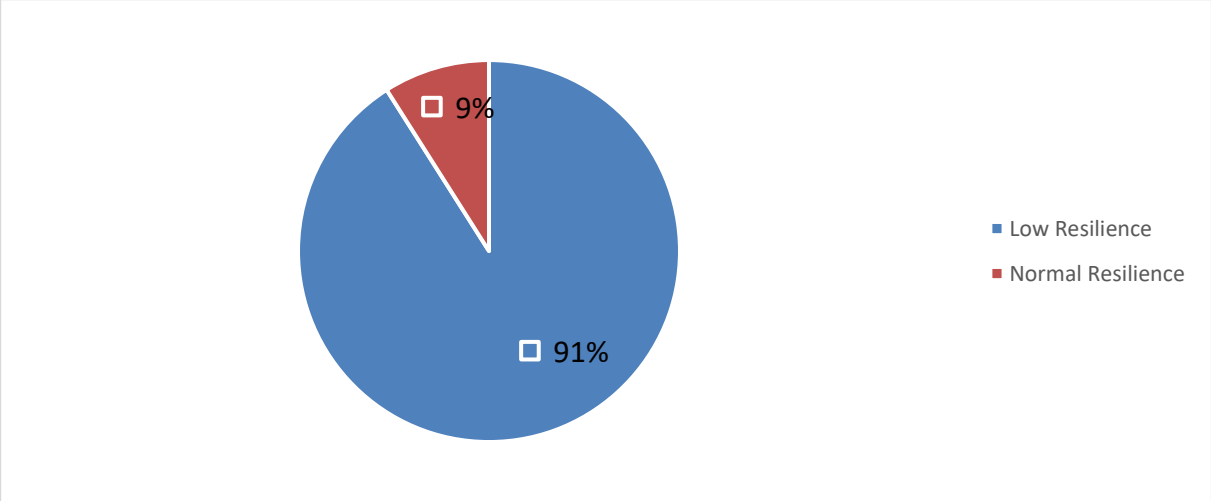

Figure 4: Overall level of resilience among the participants.

Factors associated with level of resilience.

Using bivariate regression analysis, the association between socio-demographic factors, substance use disorders, anxiety level, depression status, and level of resilience was tested. The results, presented in Table 3 below show that age group, locality, depression, anxiety, and substance use disorder level has a statistically significant impact on the level of resilience of youths with their respective P-values <0.05 (table 5) .

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Table 2: Assessing the impact of lifestyle practices on the level of resilience.
A multivariate analysis was done to check for more significant associations between resilience and the lifestyle practices, namely; anxiety, depression, substance use, and socio-demographic characteristics. Predictors with p-values<0.2 were moved to the multivariate analysis to check for most significant association. All the factors except substance use was seen to have a significant impact on level of resilience, with their respective p-values<0.05, (table 6).

Variable	n	Resilience of participants				COR (95%CI)	P-value
		Low	%	Normal	%		
Age group(years)							
10-14	284	264	93.0	20	7.0	**1.756 (1.016-3.064)**	**0.044**
15-19	526	487	92.6	39	7.4	**1.752 (1.116-2.749)**	**0.015**
20-24	363	317	87.3	46	12.7	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Gender							
Male	517	470	90.9	47	9.1	0.992 (0.662-1.486)	0.968
Female	656	598	91.2	58	8.8	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Locality							
Buea	447	430	96.2	17	3.8	1.516 (0.639-3.594)	0.345
Limbe	404	366	90.6	38	9.4	0.564 (0.256-1.241)	0.154
Tiko	183	141	77.0	42	23.0	**0.174 (0.078-0.386)**	**<0.001**
Mutengene	139	131	94.2	8	5.8	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Anxiety							
Normal	519	484	93.3	35	6.7	**3.160 (1.628-6.133)**	**0.001**
Mild	373	338	90.6	35	9.4	**2.303 (1.183-4.480)**	**0.014**
Moderate	207	187	90.3	20	9.7	**2.301 (1.108-4.780)**	**0.025**
Severe	74	59	79.7	15	20.3	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Substance use							
Normal	814	751	92.3	63	7.7	**1.560 (1.032-2.359)**	**0.035**
Substance use disorder	359	317	88.3	42	11.7	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Depression							
Minimal	831	757	91.1	74	8.9	**3.586 (1.244-10.340)**	**0.018**
Minor	219	201	91.8	18	8.2	**4.209 (1.348-13.145)**	**0.013**
Moderate	104	96	92.3	8	7.7	**4.423 (1.256-15.582)**	**0.021**
Severe	19	14	73.7	5	26.3	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		

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Table 3: Multivariate analysis identifying the factors that influence level of resilience.

Variable	n	Resilience of participants				COR (95%CI)	P-value
		Low	%	Normal	%		
Age group(years)							
10-14	284	264	93.0	20	7.0	**1.819 (1.014-3.262)**	**0.045**
15-19	526	487	92.6	39	7.4	**1.980 (1.227-3.196)**	**0.005**
20-24	363	317	87.3	46	12.7	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Locality							
Buea	447	430	96.2	17	3.8	1.477 (0.614-3.555)	0.384
Limbe	404	366	90.6	38	9.4	0.554 (0.248-1.239)	0.151
Tiko	183	141	77.0	42	23.0	**0.154 (0.068-0.349)**	**<0.001**
Mutengene	139	131	94.2	8	5.8	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Anxiety							
Normal	519	484	93.3	35	6.7	**3.789 (1.722-8.339)**	**0.001**
Mild	373	338	90.6	35	9.4	**2.713 (1.275-5.769)**	**0.010**
Moderate	207	187	90.3	20	9.7	**2.588 (1.166-5.745)**	**0.019**
Severe	74	59	79.7	15	20.3	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Substance use							
Normal	814	751	92.3	63	7.7	1.129 (0.717-1.777)	0.600
Substance use disorder	359	317	88.3	42	11.7		
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		
Depression							
Minimal	831	757	91.1	74	8.9	**2.532 (0.795-8.062)**	**0.116**
Minor	219	201	91.8	18	8.2	**5.095 (1.495-17.361)**	**0.009**
Moderate	104	96	92.3	8	7.7	**5.503 (1.449**	**0.012**
Severe	19	14	73.7	5	26.3	1	
Total	**1173**	**1068**	**91.0**	**105**	**9.0**		

Examining the relationship between Substance use, Anxiety, Resilience, and depression status.

Pearson's correlation analysis shows a significant but weak positive correlation between anxiety and Substance Use, Resilience and substance Use, Depression and substance Use, with correlation coefficients of 0.245, 0.079, and 0.254 respectively. Anxiety had a highly significant but weak correlation with resilience and an intermediate correlation with depression status with correlation coefficients of 0.215 and 0.563 respectively. Resilience had a highly significant but weak correlation with depression status with a correlation coefficient of 0.132. But in overall, the study proved that there's a strong positive correlation (association) between anxiety and depression with a correlation coefficient of 0.563 (table 4).

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Table 3: Correlation between Substance use, Anxiety, resilience, and depression status

		Substance Use	Anxiety	Depression	Resilience
Substance Use	Pearson Correlation	1	0.245	0.254	0.079
	Sig. (2-tailed)		0.000	0.000	0.000
Anxiety	Pearson Correlation	0.245	1	0.563	0.215
	Sig. (2-tailed)	0.000		0.000	0.000
Depression	Pearson Correlation	0.254	0.563	1	0.132
	Sig. (2-tailed)	0.000	0.000		0.000
Resilience	Pearson Correlation	0.079	0.215	0.132	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	1,173	1,173	1,173	1,173

Discussion

The severity of anxiety disorder, substance Use disorders, and depression.

This study has shown that 6.3% of the participants had severe anxiety, 17.6% were moderately anxious and 44.2 % had normal anxiety. This is similar to a study in Botswana which reported that 10.7% had severe anxiety, 24.8% had moderate anxiety, and 38.9% had mild anxiety among point of entry workers [15]. In a sample of young women and men from informal settlements in South Africa, 18.6% of women and 19.6% of men reported moderate or severe generalized anxiety disorder symptoms [16]. These findings suggest that anxiety is a significant mental health concern among adolescents and young adults in African countries, with a substantial proportion experiencing moderate to severe symptoms. Addressing the risk factors, such as poverty, violence, and adverse experiences, is crucial for reducing anxiety and promoting better mental health outcomes in this population.

The results above for substance abuse showed that 30.6% of the participants suffered from substance abuse. A similar study conducted in sub-Saharan Africa found an overall prevalence of substance use among adolescents at 41.6%, with the highest rates in Central Africa (55.5%) and notable use of substances such as alcohol (32.8%) and cannabis (15.9%) [18]. This suggests that the challenge of substance use and its associated disorders is a common concern across many African nations [19].

The prevalence of suicidal thoughts among children and youths, reported at 20.5%, is consistent with findings from various studies across Africa. For instance, a pooled analysis of data from four West African countries indicated that 18.6% of adolescents had considered suicide, while 24.7% reported attempting suicide [20]. ln South Africa reported that 24.1% of adolescents expressed suicidal thoughts [21], indicating that suicidal ideation is a significant issue across the continent.

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The prevalence of depression was 29.2% with severe depression at 1.6% with moderate and minimal depression having a percentage of 8.9% and 70.8 % respectively. This is similar to a study carried out in Ethiopia which found depression rates ranging from 11% to 38%, depending on the population studied. In contrast, a study in Nigeria indicated that 23.8% of adolescents experienced mild to moderate depressive symptoms, with 5.7% classified as having severe depression [20,22]. These figures suggest that while specific prevalence rates differ, the issue of depression among youth is widespread across the continent. Conversely, some of the group individuals, such as medical students in Cameroon, report significantly higher rates of depression, with studies indicating up to 66.34% experiencing depressive symptoms [23]. This highlights that specific groups may face greater mental health challenges, potentially due to academic pressures and lack of support systems.

According to the results of this study, age group (10-15), locality, and displacement status were found to have significant associations with the prevalence of mental health disorders. This is similar to the study conducted in Northern Cameroon amongst children, adolescents, and youths who reported that IDPs had the highest prevalence of trauma- and stressor-related disorders at 20.9% ($p < 0.0001$). The following independent variables age (10-15), sex, and locality were significantly associated with displacement status [15]. This is different from a study conducted in Nigeria and Ethiopia Which noted that higher levels of education, parity, urban residence, and being in the third trimester are associated with a higher psychological burden [24].

Level of resilience amongst the study participants

The prevalence of low resilience among children and youths in the studied communities, reported at 91.0%, is significantly higher compared to findings from past research in other African countries. This is shown in South Africa, where a study among adolescents living in poverty reported that 41.0% had elevated rates of overall emotional and behavioural problems, while self-reported scores indicated 14.1% had anxiety and depression [25]. Another study in Ghana found that 76.0% of orphaned and vulnerable children, and 72.0% of children with HIV-infected parents, reported psychological distress [25]. These findings suggest that while mental health challenges, including low resilience, are prevalent among youth in African communities, the 91.0% rate observed in this study is exceptionally high compared to other contexts. This stark contrast highlights the unique challenges and adversities faced by children and adolescents in the studied communities. This might be due to the socio-political crisis, poverty, exposure to violence, and lack of access to resources [24,26]. Targeted interventions that address these underlying issues, while also promoting resilience-building strategies, are crucial for supporting the mental well-being of youths in this community.

Relationship between anxiety, depression, substance use and resilience

Numerous studies have established a strong correlation between anxiety and depression, which aligns with our finding of a correlation coefficient of 0.563. One of which is a meta-analysis by Kessler et al in 2005 [27], who found that individuals with anxiety disorders are at a significantly increased risk of developing depression. Similarly, research has consistently shown a correlation between substance use and mental health disorders. A study by Grant et al in 2016 [28], reported that individuals with higher levels of substance use were more likely to experience both anxiety and depression, and reflecting our findings of weak correlations (0.245 and 0.254). Also, resilience has been shown to have a protective effect against depression. A study by Connor and Davidson in the year 2003[29], emphasizes that

higher resilience scores are associated with lower depression levels, which is consistent with our finding but with a weak correlation (0.132).

Conclusion

This study set out to assess the level of severity of anxiety, depression, substance use, and the in-built resilience of children and youths aged 10-24 years in the South West Region of Cameroon. Anxiety, depression and substance use disorders are predominantly the mental health problems amongst youths 10 – 24 years in the Southwest Region of Cameroon. Our study indicate that 6.3% of the youths had severe anxiety with 17.3% having moderate anxiety. Severe anxiety in youth increases ones chances of developing other mental health problems, such as depression and substance use disorders. Many adolescents with anxiety also experience symptoms of depression, creating a complex interplay that can worsen both conditions. Regarding depression, a significant proportion of the youths had minimal depression (70.8%) with only 1.6% presenting with severe depression. The consequence of depression amongst youths if left unattended to can lead to increased likelihood of persistent mental health problems and very low resilience in adulthood if left untreated. Looking at substance use, 30.6% of the youths and children were involved in consuming one substance or the other such as marijuana, cocaine, cannabis, just to name a few. This can lead to increased risk of chronic physical health conditions in adulthood. More than 90% of the youths and children had low resistance. This is an indicator that these youths have not developed sufficient strategies to cope in the midst of adversity.

Recommendations

Policy Recommendations:

1. Increase funding for mental health facilities and services for youths in Cameroon especially those in remote areas and those greatly affected by the ongoing crisis in order to improve in their resilience.
2. Integrate mental health education into school curricula for secondary schools and universities in Cameroon.
3. The development and use of digital technology in screening and management in health facilities to provide more efficient, effective, and patient-centred care.

Practitioner Recommendations:

1. Train more peer educators with lived in experience in mental health assessment and treatment procedures for youths in communities.
2. Establish youth-friendly mental health services and support groups in the communities.
3. Promote community-based mental health initiatives for youths where they can be taught resilience-building skills and share their lived experiences with youths who have recovered.

Research Recommendations:

1. Conduct longitudinal studies to explore mental health trajectories among Cameroonian youths.
2. Investigate the impact of cultural and contextual factors on mental health outcomes among youths

Community Recommendations:

1. Raise awareness about mental health through public campaigns and events in the community.
2. Reduce stigma around mental illness through education and advocacy.
3. Engage community leaders and organizations in mental health promotion efforts.

Individual Recommendations:

1. Encourage help-seeking behaviours among youths experiencing mental health issues.

2. Encourage youths with lived experiences in mental health disorders to share their experiences through social media platforms to support others in their recovery process.
3. Promote healthy coping mechanisms and stress management techniques through resilience building.

ABBREVIATIONS
WHO: World Health Organization, IRB: Institutional Review Board

Declarations
Ethics approval
Ethical clearance with number: 2023/2066-3/UB/SG/IRB/FHS was sort and obtained from the Institutional Review Board of the Faculty of Health Sciences, University of Buea. Participation in the study was purely voluntary with youths signing the consent before being enrolled into the study. For participants who were less than 18 years, an assent was obtained from the parents or guardian of the child through an assent form. We collaborated with the Ministry of Youth and Civic Education to reach out to these youths in the various communities where the study was carried out. Confidentiality was maintained for participant responses through proper storage of the data in an encrypted system. Data was then extracted from the records with confidentiality and safety not overlooked as extracted data was safely and securely managed using Open Data kit database with a password for protection.

Consent for publication
Not applicable

Availability of data and materials.
The dataset used for the current study is available from the corresponding author on reasonable request.

Competing interests
The authors declare that they have no competing interests.

Funding
The study was funded by Grand Challenges Canada.

Authors' contributions
LK was the principal investigator, project lead and main initiator of this research work from conception of topic to execution and compilation for publication, and EC participated in the initial drafting of the protocol and ethical clearance application procedure, AA and TM participated in the initial draft of this paper, methodological assessment and design of the study. AL collected the data and managed data as well as monitored and evaluated progress based on the methodology and objectives of the work as well as contributed in the final compilation, and WK and AW analysed the data and produced the result. GG contributed in the methodology and final compilation, supervised the data collection and analysis and RA checked this work and ensured that the aim of this worked was achieved and covered in entirety. VT and KZ also gave contributions to this paper especially with regards to the methodology checked for any grammatical errors on all the subsequent and final version of the paper. All authors read and approved the final manuscript.

Acknowledgments
Our sincere gratitude goes to Grand Challenges Canada for funding this study. We also acknowledge the efforts of the entire staff of Lifafa Research Foundation for their sacrifices to ensuring that this work is completed. Also, we extend our gratitude to the participants and their parents for their responses which enabled us to realise the results in this study.

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