Prevalence of common mental health disorders and associated factors in sexual and gender minority youth in Nairobi City County, Kenya

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SCOPE


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Abstract

BACKGROUND

Depression is a leading mental health concern globally, particularly among young people and marginalized groups. Additionally, anxiety and PTSD significantly contribute to the mental health burden.

Sexual and gender minority (SGM) youth experience elevated rates of depression, PTSD and anxiety compared to their heterosexual and cisgender peers due to factors such as discrimination, stigma, and minority stress. Global studies show that this is compounded by experiences of bullying, lack of social support, and internalized stigma. Despite these global insights, the factors influencing depression, anxiety and PTSD among Sexual and Gender Minority youth in low- and middle-income countries (LMICs) remain underexplored.

The scarcity of local data represents a critical research gap to capture the lived experiences of Sexual and Gender Minority youth in Nairobi, where cultural, legal, and social environments differ from other regions.

OBJECTIVE

To determine the prevalence of depression, anxiety, PTSD and the risk and protective factors in sexual and gender minority youth in Nairobi City County, Kenya.

Abstract

MATERIALS AND METHODS

- **Study design:** quantitative cross-sectional, questionnaire-based study.
- **Study site:** Nairobi County
- **Study population:** members of sexual and gender minority community, 18 years and older, were recruited via snowball and convenient sampling through various civil society organisations(CSOs) and community groups.
- **Data collection:** standardized online survey questionnaires to capture demographic variables, sexual and gender information. Depression, anxiety and PTSD was assessed by Patient Health Questionnaire (PHQ – 9), Generalized anxiety Disorder (GAD-7) and Primary Care Post-Traumatic Stress Disorder (PC-PTSD) respectively. Substance Use and Alcohol Use was assessed by the Drug Abuse Screening Test-10 (DAST-10) and Alcohol Use Disorders Identification Test (AUDIT-C) respectively.
- **Data analysis:** SPSS version 29.0 was utilized. Data was presented in charts, graphs, and tables. Descriptive frequencies, means and percentages for all variables of interest were performed. Chi square and logistic regression were run to examine the association the three mental health outcomes and different factors and identifying significant predictors of the mental health outcomes. Statistical significance was set at $p<0.05$ and results of the regression models are reported as ORs with 95% CI.

Abstract

RESULTS

A total of 172 sexual and gender minority (SGM) youth residing in Nairobi participated in the study. The prevalence of clinically significant symptoms was 52.9% for anxiety, 45.9% for depression, and 35.5% for PTSD. Emotional support emerged as a strong protective factor; participants who lacked consistent support had significantly higher odds of reporting anxiety (OR = 8.2) and depression (OR = 6.1). Bisexual individuals were more likely to experience both depression and anxiety compared to their gay, lesbian, or pansexual peers. Additionally, individuals with a college-level education had higher odds of reporting anxiety compared to those with postgraduate education. Alcohol and drug use were reported by 38.4% and 39% of participants, respectively. Systemic barriers were also evident with 48.3% expressed discomfort discussing mental health with healthcare providers.

Objectives

General objective

To investigate the burden of common mental disorders and the risk and protective factors among sexual and gender minority youth in Nairobi, Kenya.

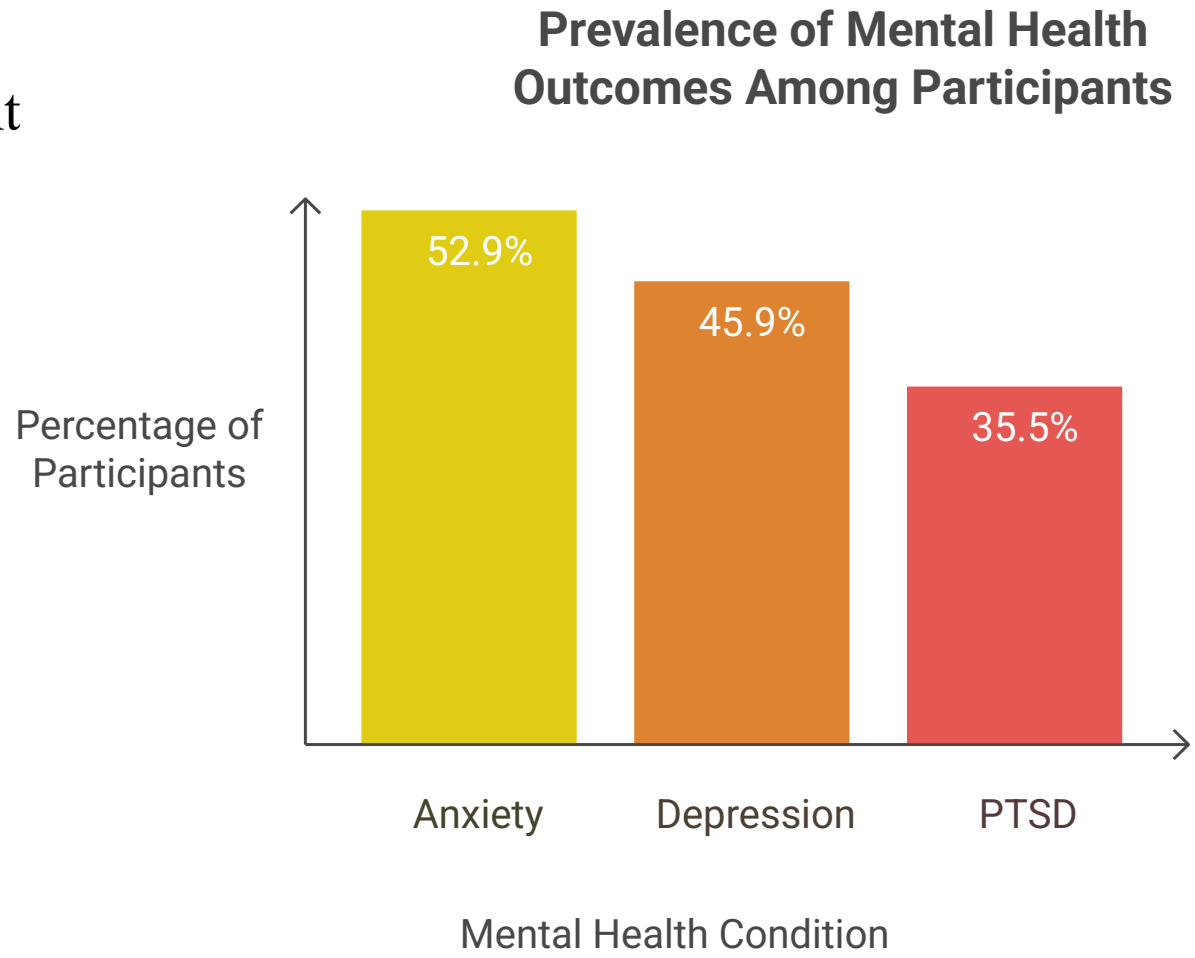
Specific objectives

1. To determine the prevalence of depression, anxiety disorders, and PTSD among sexual and gender minority youth living in Nairobi.
2. To identify the risk factors associated with depression, anxiety disorders, and PTSD.
3. To identify protective factors associated with depression, anxiety disorders, and PTSD.

Results

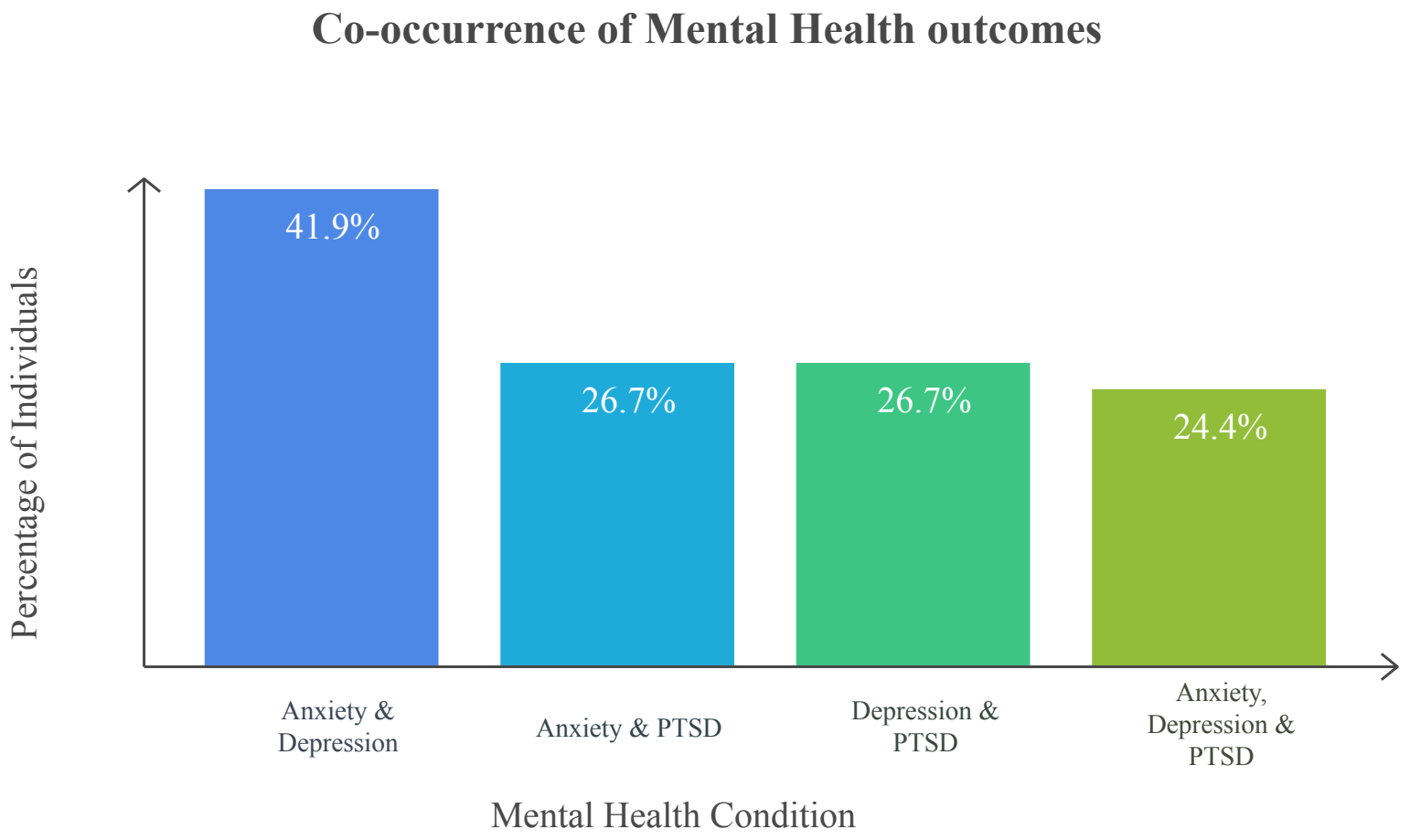
Prevalence of anxiety, depression and post-traumatic stress disorder

- ✔ 52.9% were found to have clinically significant anxiety symptoms.
- ✔ 45.9% met the criteria for moderate or severe depression
- ✔ 35.5% screened positive for PTSD.



Descriptive Statistics

Co-occurrence of Mental Health outcomes



Descriptive Statistics

Risk factors associated with mental health outcomes

- Most common risk factors
  - Expectation of rejection 57.3%
  - Internalized homophobia 56.7%
  - Prejudice 53.8%
  - Stigma 51.5%
  - Identity concealment 48.5%
- Alcohol use- 38.4%
- Drug use-39%

Risk Factor		Percentage
Negative experiences	Expectation of rejection	57.3%
	Internalized homophobia	56.7%
	Prejudice	53.8%
	Stigma	51.5%
	Identity concealment	48.5%
	Violence	29.2%
	Discrimination	25.7%
	Victimization	24.0%
	Cyberbullying	18.1%
Alcohol use		63.4%
Drug use		39.0%

Descriptive Statistics

Protective factors associated with mental health outcomes

- 86.6% reported experiencing at least one of the protective factors.
- 44.8% reported being affiliated with LGBTQIA+ support networks.
- 88.4% indicated they had access to healthcare services.
- 57% reported having people they could turn to for emotional support.

Protective Factor	**N=172(%)**
Any protective factor (≥1)	149(86.6%)
Engagement in healthy activities	70 (47.0%)
Help-seeking beliefs	52(34.9%)
Access to culturally appropriate mental health services	51(34.2%)
Family support	39(26.2%)
Supportive policies	30(20.1%)
Peer support & community connections	28(18.8%)

Descriptive Statistics

Association between SGM status and mental health outcomes

- Chi-square tests to examine associations between gender identity and sexual orientation with mental health outcomes
- No statistically significant association was found.

	Outcome	χ^2 (df = 4, N = 172)	p-value
Gender identity	Anxiety	3.46	.484
	Depression	1.66	.799
	PTSD	8.06	.089
	Aggregated Outcome	3.97	.410
Sexual orientation	Anxiety	13.51	.061
	Depression	3.618	.823
	PTSD	5.503	.599
	Aggregated Outcome	4.829	.681

Inferential Statistics

Predictors of anxiety

Sexual orientation

- Gay vs. Bisexual OR 0.104 (p = 0.001)
- Lesbian OR 0.092 (p < 0.001)
- Pansexual OR 0.147 (p = 0.008)

Education

- College vs. Postgrad OR 14.88(p = 0.002)

Emotional support

- None vs. Always OR 8.203 (p = 0.005)
- Sometimes vs. Always OR 3.610 (p = 0.002)

	Predictor	B(SE)	Wald	p-value	OR (Exp(B))	95% CI for OR
Sexual orientation			20.225	**0.001**		
	Bisexual			Reference group		
	Gay	-2.267 (0.713)	10.099	**0.001**	0.104	0.026 – 0.419
	Lesbian	-2.382 (0.612)	15.133	**0.006**	0.092	0.028 – 0.307
	Pansexual	-1.920 (0.728)	6.959	**0.008**	0.147	0.035 – 0.610
	Queer	-0.743 (0.606)	1.503	0.22	0.476	0.145 – 1.560
	Other	-0.726 (0.785)	0.855	0.355	0.484	0.104 – 2.254
Education Level			13.822	**0.008**		
	Post graduate			Reference		
	Primary/Secondary	.820 (.886)	.856	.355	2.271	0.400 - 12.902
	College	2.700 (.884)	9.334	**.002**	14.882	2.633 - 84.132
	Undergraduate	1.342 (.746)	3.241	.072	3.829	.888 - 16.511
Emotional support			14.186	**<0.001**		
	Yes			Reference group		
	No	2.104 (0.756)	7.754	**0.005**	8.203	1.865 – 36.079
	Sometimes	1.284 (0.405)	10.042	**0.002**	3.61	1.632 – 7.986
	Constant	0.301 (0.667)	0.203	0.652	1.351	

Inferential Statistics

Predictors of Depression

- College education vs postgraduate
  OR 11.12 (p = 0.004)
- Undergraduate education
  OR 4.87 (p = 0.027)
- Living in “other” arrangement vs alone
  OR 0.237 (p = 0.038)
- Emotional support always vs sometimes
  OR 0.487 (p = 0.060)
- Drug use; non-users
  OR 0.506 (p = 0.055)

Variable		p-value	Exp(B)	CI Lower	CI Upper
Sexual orientation		0.117			
	Bisexual				
	Gay	0.603	1.496	0.327	6.843
	Lesbian	0.463	0.558	0.117	2.655
	Pansexual	0.297	0.469	0.113	1.945
	Queer	0.768	0.781	0.151	4.036
	Other	0.419	1.842	0.418	8.11
Living situation		**0.023**			
	Alone				
	Family/Relatives	0.408	0.561	0.143	2.207
	Other	0.038	0.237	0.061	0.924
Education Level		**0.029**			
	Primary/Secondary	0.144	3.311	0.666	16.467
	College	0.004	11.119	2.17	56.98
	Undergraduate	0.027	4.865	1.202	19.689
	Postgraduate				
Drug Use	No	0.055	0.506	0.253	1.014
	Yes				
Emotional support		**0.043**			
	Yes	0.06	0.487	0.23	1.031
	No	0.313	2.036	0.511	8.113
	Sometimes				

Inferential Statistics

Predictors of PTSD

- Bivariate logistic - None of the variables were statistically significant.
- A backward stepwise logistic regression final model retained only gender identity as a predictor.
- Gender identity was not statistically significant ($\chi^2(4) = 3.915$, $p = 0.418$),
- Females had lower odds of PTSD compared to the reference group(male) (OR = 0.444; p = 0.059).

Variable		p-value	Exp(B)	CI Lower	CI Upper
Gender identity		0.418			
	Male Female	**0.059**	0.444	0.191	1.032
	Genderqueer/Nonbinary	0.441	0.692	0.272	1.763
	Transgender	0.999	0	0	
	Prefer not to say	0.999	0	0	

Inferential Statistics

Discussion

Prevalence of anxiety

Finding: The prevalence of anxiety was 52.9%.

- A level much higher than previous studies
  - Harper et al 2024 - 12.7% among GBMSM in Kisumu
  - Reisner et al. (2014) - 38% among SGM
  - Miller et al. (2024) - 44% of SM in US
- The differences could be attributed to differences in sampling, availability of support mechanisms(Miller et al., 2024).

Prevalence of depression

Finding: The prevalence of depression was 45.9%.

- ✔ This rate is significantly higher than other local studies
  - Harper et al., 2021b, 2024)-26.1%- Western Kenya; 15.8% - Kisumu
  - Doshi et al. 2020 – 29.8% among GBMSM in Nairobi
  - Korhonen et al. 2018 - 31% of GBMSM across Kisumu, Nairobi, and Coastal
- ✔ Global prevalence
  - O'Shea et al. (2025)- 26% among sexual minorities; 46% among gender minorities
  - Reisner et al. (2014) - 18–50% among SM; 20–50% of GM
- ✔ These differences may be influenced by age-related differences, community stigma, or varying access to social and mental health support services across regions.

Prevalence of PTSD

Finding: The prevalence of PTSD was 35.5%.

✔ Similar studies

- Harper et al 2024 reported a PTSD prevalence of 31.7% in Kisumu
- Shipherd et al. (2021) identified a 17.8% PTSD prevalence

✔ Contrasting studies

- Harper et al 2021- 53.3% in Western Kenya.
- Mbeneka et al. (2023) - 66.9% in Nairobi and Kiambu
- Dimas et al. (2010) - 68% in California
- Whitton et al. (2019) - 75% among SGM youth-USA

✔ The difference could be attributed to older participant age and increased lifetime trauma exposure and use of different tools (PCL-5).

Prevalence cont.

- SGM young adults experience higher levels of depression, PTSD, and anxiety compared to non-SGM(Kamal,2021).
- In the US, nearly half of sexual minorities have experienced depressive and anxiety symptoms, rates three times higher than in heterosexuals (Miller et al., 2024).
- Similarly, in Finland studies report high levels of anxiety and depression among bisexual and non-binary individuals and sexual minority women in the Philippines faced double the risk of poor mental health compared to men, often exacerbated by discrimination and social stigma(Källström et al., 2022; Alibudbud, 2023)
- In South Africa, bisexual, nonbinary, and sexual minority women face double the risk of poor mental health compared to their cis-gender counterparts(Metheny et al., 2024).

Key Psychosocial Predictors-1

- Bisexual participants had higher odds of anxiety and depression than their gay, lesbian, or pansexual peers.
- Ross et al 2017 also demonstrated that bisexual individuals consistently demonstrated higher rates of both depression and anxiety than gay/lesbian and heterosexual peers. (Ross et al., 2017)
- This can be attributed to:
  - Sexual identity stress at multiple levels (Chan et al., 2019).
  - Bisexual invisibility/erasure (Ross et al 2017)
  - Experiences of bisexual-specific discrimination
  - Lack of bisexual-affirmative support

Key Psychosocial Predictors-2

- Lack of emotional support revealed higher odds of anxiety and depression
  - OR = 8.2 No support
  - OR = 3.6 Intermittent support
- Studies show that lack of support increases anxiety risk by over 8 times among SGM youth (Harper et al., 2021b).
- Emotional and peer support act as a psychological buffer, reducing the impact of stress and stigma on mental health(McConnell et al., 2016).
- Supportive relationships enhance coping skills, promote self-worth, and reduce social isolation.

Key Psychosocial Predictors-2

- The high prevalence of mental health symptoms among SGM youth in this study can be understood through minority stress theory (Frost & Meyer, 2023). Participants' experience with identity concealment, internalized homophobia, and perceived stigma compound the psychological distress
- Harper et al. (2024) and Doshi et al. (2020) identified stigma, violence, and identity concealment as key psychosocial stressors in GBMSM populations in Kisumu and Nairobi.
- Similarly, internalized stigma and community rejection were linked with elevated depressive symptoms among SGM individuals(Korhonen et al., 2018).
- Reisner et al. (2014) and Miller et al. (2024) identified concealment stress, victimization, and institutional discrimination as core predictors of anxiety and depression in SGM population.

Substance Use

- High alcohol (38.4%) and drug (39.0%) use rates, often linked to peer influence and stress.
- Prior local studies:
  - Korhonen et al. (2018): hazardous alcohol use - 44% ; drug use – 51%
  - Harper et al., 2021a- harmful alcohol consumption - 50.1% ;drug use - 23.8%
- SGM individuals are at disproportionately high risk for alcohol and poly-substance use(Mimiaga et al.,2023)
- Secor et al. (2015) found that moderate-to-severe depression was highly correlated with substance use and social isolation. While, Schwinn et al., 2015, found that increased drug use reinforced the role of psychosocial stress in driving maladaptive coping behaviour.
- These findings reflect minority stress coping behaviors.

Protective Factors

- Peer support, access to affirming mental health services, healthy activities, access to culturally appropriate mental health services, and strong emotional support network were reported.
- These have been associated with reduced depression and PTSD (Doshi et al., 2020; Mbeneka et al., 2023).
- Culturally competent care and family acceptance promote mental well-being (Miller et al., 2024; O'Shea et al., 2025).

Healthcare Barriers

- 48.3% uncomfortable discussing mental health with providers
- 55.2% lacked LGBTQIA+ support affiliations
- Institutional stigma is a major healthcare access barrier
- Kenyan SGM adults described harassment and refusal of care by clinicians, many avoid services due to fear of discrimination and violence(Harper et al., 2021b).
- Globally, LGBTQ+ individuals avoid healthcare stemming from non-affirming practices and provider ignorance about SGM needs(Hascher et al., 2024).

Conclusion

- This study provides insight into the mental health burden faced by sexual and gender minority (SGM) youth in Nairobi.
- The high prevalence rates of anxiety, depression, and PTSD affirm that SGM youth experience significantly greater psychological distress than the general population.
- Key risk factors such as bisexual identity, lower educational attainment, and lack of emotional support were significantly associated with adverse mental health outcomes.
- These findings highlight the urgent need for targeted mental health interventions, community-based support systems, and policy frameworks that promote inclusion and equity in mental health service delivery for SGM populations in Kenya.

Recommendations

To conduct a qualitative study to explore complex experiences, uncover unique challenges and identify specific needs of SGM individuals, which can inform targeted interventions.

To enhance healthcare provider training in LGBTQIA+ affirmative care to help reduce stigma and build confidence in provider-patient relationships.

To establish safe, youth-friendly mental health services specifically designed for SGM individuals by empowering community organisations and support groups through funding and legal protection.

To develop policies that prioritizes the development of national mental health guidelines that explicitly address the needs of LGBTQIA+ populations.

Dissemination and Next Steps

- Submit dissertation to the Department of Psychiatry, University of Nairobi.
- Present the study findings to the various Civil Society Organisations and Community Based Organisations where study participants were recruited.
- Publish in peer-reviewed journals.

Thank you