



Short communication

Sexual and gender minority stress and clinical symptom severity in psychiatrically hospitalized adolescents

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ABSTRACT

This study examined the role of lifetime and past 30-day experiences of sexual and gender minority (SGM) stress on clinical symptom severity in 286 psychiatrically hospitalized adolescents. Participants completed measures of clinical symptoms, and SGM adolescents ($n = 176$, 61.5 %) reported on minority stress experiences across three domains (i.e., negative expectancies, internalized homonegativity, homonegative climate). SGM adolescents reported greater clinical symptom severity than non-SGM adolescents. Most SGM adolescents (77.3%) reported lifetime minority stress exposure, endorsing an average of 3.3 stressors ($SD = 2.9$). Among those endorsing lifetime minority stress history, 76.1% reported past 30-day minority stress exposure. Lifetime and recent minority stress exposure were positively associated with clinical symptom severity. Findings support the importance of assessing SGM identities and minority stress experiences in psychiatric settings and supporting youth in coping with these experiences.

1. Introduction

Sexual and gender minority (SGM) adolescents are disproportionately represented among psychiatrically hospitalized populations (Bettis et al., 2020; Seager van Dyk et al., 2023), consistent with research finding that SGM youth, in comparison to their non-SGM (i.e., heterosexual, cisgender) peers, are at greater risk for suicidality, depression, and other mental health problems (VanBronkhorst et al., 2021). Among adolescent psychiatric inpatient samples, SGM adolescents report higher levels of suicidal ideation (SI), suicidal behavior, and self-harm compared to their non-SGM peers (Bettis et al., 2020; Peters et al., 2020). That is, even among adolescents in crisis, SGM adolescents are especially vulnerable to these serious mental health outcomes. Efforts to understand factors unique to SGM adolescents that place them at higher risk, such as minority stress, are critical to improving risk stratification models and intervention approaches.

Minority stress is central to understanding mental health disparities affecting SGM adolescents, with limited research on minority stress in high-risk youth. The minority stress model posits that SGM individuals face excess identity-specific stressors that contribute to poor mental health including external stressors (e.g., victimization, discrimination) and internal psychological reactions to stressors (e.g., internalized homonegativity, expectations of rejection) (Goldbach and Gibbs, 2017;

Hatzenbuehler and Pachankis, 2016). Associations between minority stress and SGM mental health are well-documented in predominately non-clinical samples (de Lange et al., 2022), yet to our knowledge, no studies have examined the prevalence of minority stress in an SGM adolescent inpatient population and associations with clinical symptom severity. Investigating the role of minority stress in clinical symptom severity in youth in crisis can inform risk stratification models, assessment practices, and treatment guidelines for clinicians working with this population. Furthermore, it is critical to understand *where* SGM adolescents may be most likely to experience minority stress (e.g., school, community, home) to enhance safety planning and intervene as needed.

In the present study, we expand on prior research in psychiatrically hospitalized adolescents to examine the specific role of minority stress on clinical symptom severity in a sample recruited from a psychiatric hospital in the Southeastern U.S., where structural stigma (i.e., anti-SGM laws, policies, and social norms (Hatzenbuehler and Pachankis, 2016)) is high. This geographic context is notable given previous research showing that SGM adolescents living in U.S. states with higher structural stigma report more minority stress experiences (Watson et al., 2021). Specifically, we first test differences on symptoms of depression, anxiety, and SI severity between SGM and non-SGM adolescents. Second, in the subsample of SGM adolescents, we examine the prevalence of minority stress and associations with clinical symptoms.

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2. Methods

Participants. Adolescents ages 12–17 years old ($N = 286$) admitted to a psychiatric hospital in the Southeastern U.S. completed self-reports assessing clinical symptom severity. Adolescents were administered surveys using the REDCap electronic data capture tool (Harris et al., 2019), per standard clinical intake, and data are used to inform clinical care. De-identified clinical data between December 2021 and May 2023 were analyzed, as approved by the [redacted] Institutional Review Board.

Self-reports. Participants completed the Patient Health Questionnaire-9 (PHQ-9 (Kroenke et al., 2001); $\alpha = 0.88$), Generalized Anxiety Disorder-7 (GAD-7 (Spitzer et al., 2006); $\alpha = 0.90$), and Suicidal Ideation Questionnaire Jr. (SIQ-Jr. (Reynolds and Mazza, 1999); $\alpha = 0.95$). Participants who self-identified as SGM completed three subscales of the Sexual Minority Adolescent Stress Inventory (SMASI (Goldbach et al., 2021)). The SMASI includes binary indicators denoting if respondents have experienced a specific minority stressor in their lifetime. Those confirming a lifetime exposure are then asked whether it occurred within the past 30 days. Past-30-day scores were computed and restricted to SGM adolescents who endorsed one or more lifetime minority stressors ($n = 109$; 38.11 %). The three assessed SMASI subscales were negative expectancies (lifetime $\alpha = 0.69$; past 30-day $\alpha = 0.78$), internalized homonegativity (lifetime $\alpha = 0.68$; past 30-day $\alpha = 0.62$), and homonegative climate (lifetime $\alpha = 0.79$; past 30-day $\alpha = 0.78$) which were summed to compute total minority stress scores (lifetime $\alpha = 0.79$; past 30-day $\alpha = 0.74$).

3. Results

Adolescents were, on average, 14.5 years old ($SD=1.6$) and 78.7 % were assigned female sex at birth. Nearly three-quarters of adolescents were cisgender (74.8 %) and white (72.4 %). Regarding ethnicity, 22.7 % were Hispanic/Latinx. Nearly two-thirds of psychiatrically hospitalized adolescents identified as SGM (61.5 %) Among SGM adolescents, the most prevalent sexual orientations were bisexual (40.9 %) and pansexual (19.9 %), and the most prevalent gender identities were girl/woman (57.4 %) and non-binary (14.8 %; see Supplemental Table 1 for complete demographic data).

Overall mean scores for depression ($M = 14.7, SD=7.1$), anxiety ($M = 12.2, SD=6.0$), and SI severity ($M = 43.7, SD=24.8$) were clinically elevated. SGM adolescents, compared to non-SGM adolescents, reported higher depressive ($M_{SGM}=16.8, SD_{SGM}=6.1$ vs. $M_{non-SGM}=11.3, SD_{non-SGM}=7.3, t[284] = 6.6, p < .001$), anxiety ($M_{SGM}=13.5, SD_{SGM}=5.6$ vs. $M_{non-SGM}=10.1, SD_{non-SGM}=6.0, t[281] = 4.7, p < .001$), and SI symptom severity ($M_{SGM}=50.9, SD_{SGM}=22.5$ vs. $M_{non-SGM}=32.2, SD_{non-SGM}=24.0, t[282] = 6.7, p < .001$).

Among SGM adolescents, the majority (77.3 %) reported lifetime minority stress, endorsing an average of 3.3 stressors ($SD=2.9$). Among those who endorsed at least one lifetime minority stressor, 76.1 % reported at least one minority stress experience within the past 30 days, endorsing an average of 2.8 stressors ($SD=2.7$). The most prevalent lifetime and past-30-day minority stressors were hostile school environment and negative expectancies. In total, 44.7 % of SGM adolescents had experienced 4 or more lifetime minority stressors (see Table 1).

Minority stress was significantly positively correlated with depressive (lifetime $r = 0.38, p < .001$; past 30-day $r = 0.30, p < .01$), anxiety (lifetime $r = 0.27, p < .01$; past 30-day $r = 0.26, p < .01$), and SI symptom severity (lifetime $r = 0.31, p < .001$; past 30-day $r = 0.27, p < .01$). In linear regression models adjusted for age and gender identity, minority stress was significantly positively associated with depressive (lifetime = $Est=-0.72, 95\% CI = 0.37-1.06, p < .001$; past 30-day = $Est=-0.55, 95\% CI = 0.17-0.93, p < .01$), anxiety (lifetime = $Est=-0.47, 95\% CI = 0.15-0.80, p < .001$; past 30-day $Est=-0.50, 95\% CI = 0.14-0.85, p < .01$), and SI symptom severity (lifetime = $Est=-2.26, 95\% CI = 0.9-3.55, p < .001$; past 30-day $Est=-2.09, 95\% CI = 0.61-3.57,$

Table 1

Minority stress exposure among psychiatrically hospitalized SGM adolescents ($N = 141$).

Minority stress subscales ^a	Items	N	%	Lifetime Exposure		Past 30-Day Exposure Among Adolescents Reporting any Lifetime Exposure ($n = 109$)	
				N	%	N	%
Negative expectancies	I am concerned that if I am LGBTQ, I will have a worse life than if I were straight.	56	39.7	38	34.9		
	I think I will lose friends if I come out at LGBTQ.	21	14.9	16	14.7		
	I expect people to reject me when they find out I am LGBTQ.	62	44.0	39	35.8		
Internalized homonegativity	There are times when I do not want to be LGBTQ.	45	31.9	35	32.1		
	If I could, I would become straight.	23	16.3	18	16.5		
	I hate being LGBTQ.	7	5.0	6	5.5		
	I think it is wrong for me to be LGBTQ.	12	8.5	11	10.1		
	I hope that being LGBTQ is just a phase for me.	9	6.4	9	8.3		
	I think negatively about other LGBTQ people who act "too gay".	9	6.4	8	7.3		
Homonegative climate	I am uncomfortable being LGBTQ.	10	7.1	6	5.5		
	I felt unsafe or threatened in school because I am LGBTQ.	46	32.6	25	22.9		
	I have seen other LGBTQ youth treated badly at my school.	79	56.0	43	39.5		
	It is hard to be an LGBTQ person at my school.	54	38.3	35	32.1		
	Other students make fun of me for being LGBTQ.	36	25.5	21	19.3		
Overall metrics							
		N	%	Lifetime Exposure		Past 30-Day Exposure Among Adolescents Reporting any Lifetime Exposure ($n = 109$)	
		[Mean]	[SD]	N	%	N	%
Cumulative minority stress exposure Scale scores	0 items endorsed	32	22.7	26	23.9		
	1–3 items endorsed	46	32.6	44	40.4		
	4–6 items endorsed	39	27.7	25	22.9		
	7+ items endorsed	24	17.0	14	12.8		
	Negative expectancies (range = 0–3)	[0.99]	[1.07]	[0.85]	[1.10]		
Internalized homonegativity (range = 0–6)	[0.82]	[1.26]	[0.85]	[1.22]			
Homonegative climate (range = 0–4)	[1.52]	[1.49]	[1.14]	[1.38]			
Total minority stress sum score (range = 0–11)	[3.33]	[2.87]	[2.84]	[2.65]			

^a Minority stress exposure measured by the Sexual Minority Adolescent Stress Inventory (SMASI) with permission from SMASI co-developer Dr. Jeremy Goldbach for presentation of SMASI items.

$p < .01$). When clinical symptoms were added as covariates, lifetime minority stress remained uniquely positively associated with depressive symptoms ($Est.=0.22$, 95 % CI = 0.02–0.43, $p = 0.03$), but not anxiety nor SI symptoms; past 30-day minority stress was not associated with any outcomes in these models (see Supplemental Table 2).

4. Discussion

The current study supports existing research documenting the heightened risk for depression, anxiety, and SI among psychiatrically hospitalized SGM adolescents (Bettis et al., 2020; VanBronkhorst et al., 2021; Peters et al., 2020). This study expands on previous research, showing that both lifetime and recent minority stress experiences represent significant psychosocial issues affecting psychiatrically hospitalized SGM adolescents, particularly in school settings, and are associated with clinical symptom severity. The high prevalence of minority stress exposure among this sample underscores the detrimental impact of societal attitudes, norms, policies, and practices on this population's mental health.

These findings have important clinical implications. First, this study echoes recent guidance on the importance of assessing sexual orientation, gender identities, and minority stress experiences during hospital admission and, relatedly, training providers on affirming adolescent identities in clinical settings (Seager van Dyk et al., 2023). Findings emphasize the importance of assessing minority stress in hospitalized youth with considerations of settings (i.e., school) in which youth may be most vulnerable. By ascertaining SGM adolescents' minority stress exposure as part of a comprehensive psychosocial evaluation, clinicians can better respond to the population's unique therapeutic needs.

Assessing identities and exposure to minority stressors can only be effective if clinicians are equipped to affirmatively respond. Previous research has documented that clinicians in acute psychiatric care settings frequently lack the training and readiness to support SGM patients (Fadus et al., 2020). Insufficient training is particularly concerning since SGM individuals often describe psychiatric hospitalization as iatrogenic due to clinicians' lack of cultural competence and understanding of their minority stress experiences (Seager van Dyk et al., 2023; Holt et al., 2024). Encouragingly, results from a recent randomized-controlled trial of an 11-week LGBTQ-affirmative therapy training for mental healthcare providers demonstrated improvements in providers' cultural competence, minority stress knowledge, and LGBTQ-affirmative therapeutic skills compared to a waitlist-control (Pachankis et al., 2022). Dissemination of LGBTQ-affirmative training to mental healthcare providers working in adolescent psychiatric settings can help to support and validate SGM adolescents and potentially mitigate substantial mental health disparities.

Second, this study demonstrates the need to address SGM minority stress and create safer environments to reduce the adverse mental health outcomes observed among SGM adolescents. The most prevalent minority stressors reported among psychiatrically hospitalized SGM adolescents were those related to hostile school environments, including direct exposure to harassment and bullying, as well as witnessing the harassment of other SGM students. This highlights the importance of creating safe and inclusive spaces for SGM adolescents within educational settings (Day et al., 2020). Mental healthcare providers in acute psychiatric settings may consider collaborating with schools at the time of discharge to ensure SGM adolescents have supports in place to reduce risk. Furthermore, this finding calls for the need for stronger anti-discrimination policies in schools including anti-bullying policies that specifically enumerate protections based on sexual orientation and gender identity (Hatzenbuehler and Keyes, 2013). There is also a need to better understand SGM adolescents' experiences during psychiatric hospitalization, where further exposure to minority stressors may occur.

The present study has several strengths and is not without limitations. The study was cross-sectional, limiting our ability to draw conclusions about causal relationships. Data regarding length of stay and

reason for admission were not available. While the study had a large sample of SGM youth, we were underpowered to examine these relationships within subgroups of SGM identities. Nonetheless, findings offer compelling evidence to support the need for longitudinal studies examining minority stress and clinical symptom change among high-risk adolescents. It is notable that this study was conducted in the South-eastern U.S., which has seen a sharp increase in laws prohibiting discussion of sexual orientation and gender identity in schools, which researchers suggest may erode social support of SGM adolescents and exacerbate minority stress experiences (Kline et al., 2022). In addition to the need for structural interventions targeting stigma at its root (e.g., by enacting protective laws and policies), LGBTQ-affirmative mental health treatments can help SGM adolescents thrive in the context of stigmatizing environments by promoting coping skills, self-esteem, and social support (Craig et al., 2021). Efforts to adapt and implement LGBTQ-affirmative mental health treatments (e.g., AFFIRM intervention) in inpatient settings, with opportunities for family involvement in treatment (as appropriate), are important potential future extensions of this work.

CRedit authorship contribution statement

Kirsty A. Clark: Conceptualization, Formal analysis, Methodology, Writing – original draft, Writing – review & editing. **Jessica M. Schwartzman:** Conceptualization, Methodology, Writing – review & editing. **Alexandra H. Bettis:** Conceptualization, Data curation, Methodology, Supervision, Writing – original draft, Writing – review & editing.

Declaration of competing interest

There are no conflicts of interest to disclose

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2024.115838](https://doi.org/10.1016/j.psychres.2024.115838).

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