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journal homepage: www.disabilityandhealthjnl.comExperiences of stress and social safety among sexual and gender minority youth by disability status[☆]Benton M. Renley^{a,*}, Michael S. Argenyi^b, Ethan H. Mereish^c, Ryan J. Watson^a^a University of Connecticut, Department of Human Development & Family Sciences, Storrs, CT, USA^b University of Massachusetts Chan Medical School, Department of Family Medicine and Community Health, Worcester, MA, USA^c Lavender Lab, Department of Psychology, University of Maryland, College Park, USA

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ABSTRACT

Background: Though separate bodies of research have shown sexual and gender minority (SGM) youth, and youth with disabilities, separately, face distinct social and health disparities, little is known about youth who *both* identify as SGM and have disabilities.

Objective: The current study examined differences in wellbeing among SGM youth by disability category (i.e., physical, developmental, psychiatric) across victimization, bullying, dating violence, school safety, and experienced stress.

Methods: Using self-reported data from 9418 SGM youth aged 13–17 in the United States, multivariate linear regressions were conducted to examine how stress and social safety experiences varied across disability status.

Results: Compared to SGM youth without a disability, SGM youth across all disability categories (physical, developmental, psychiatric) had greater odds of LGBT- and disability-based victimization, greater average stress, as well as lower levels of school safety. SGM youth with any disability, physical disability, or psychiatric disability also had greater odds of dating violence compared to SGM youth without a disability.

Conclusion: SGM youth with disabilities may be in particular need of targeted programs that address both disability and sexual/gender identities, and may benefit from increased supports across developmental contexts (e.g., against bullying in school). Stakeholders should consider how such support can be improved, tailored, and implemented, for SGM youth and the diversity of disabilities they have.

1. Introduction

Nationally, over 3 million (4.3%) youth under the age of 18 are reported to hold a disability.¹ Likely because there is no single definition of ‘disability,’ estimates of youth with disabilities living in the US often-times vary across studies. Though it is unclear at the population level how many sexual and gender minority (SGM) youth (e.g., lesbian, gay, bisexual, transgender, nonbinary) have disabilities, recent research using a national non-probability sample found that nearly 1 in 5 youth reported at least one disability.² Similar to SGM youth, youth with disabilities experience bullying, victimization, and dating violence at higher levels than their peers.^{3,4} Given that these experiences are linked to suicide ideation and drug use,⁴ it may be important to investigate

whether SGM youth with disabilities are at increased risk for these forms of violence when experiencing both minoritized sexual/gender identities and a disability.

SGM youth are consistently shown to experience disparities in wellbeing.⁵ For instance, SGM youth have higher odds of experiencing bullying than their heterosexual and cisgender peers.^{6,7} Gender minority youth, in particular, experience high levels of sexual assault, especially when they report that they are unable to access safe restroom and locker room spaces.⁸ These experiences of bullying and assault are particularly concerning given their associations with depression, posttraumatic stress disorder, and suicide in both adolescence and adulthood.^{9,10}

According to the minority stress model, SGM youth may experience minority stress (i.e., stress that results from heterosexism, anti-bisexual

Abbreviations: LGBTQ+, lesbian, gay, bisexual, transgender, queer, or another non-heterosexual/non-cisgender; SGM, sexual and gender minority.

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prejudice, and cissexism). These sources of stress can be distal and occur in one's environment (e.g., prejudicial events, violence) or proximal in that the stress is internal to the individual (e.g., concealment, expectations of rejection). Chronic exposure to these stressors place SGM youth at an increased risk for psychological distress and adverse health outcomes—ultimately contributing to health and wellbeing disparities.¹¹ SGM youth with disabilities may experience intersecting systems of discrimination related to ableism as well as heterosexism/cissexism, and thus may face particularly complicated or worsened well-being.¹²⁻¹⁴

The body of literature that considers youth who simultaneously hold sexual and gender minority identities and have a disability is notably sparse. However, emerging research seems to suggest that SGM youth with disabilities disproportionately experience adverse social events related to minority stress. For instance, the Gay, Lesbian and Straight Education Network (GLSEN) 2019 National School Climate Survey found that, nationally, 35% of SGM students were bullied or harassed based on actual or perceived disability.¹⁵ Furthermore, sexual minority youth with disabilities, reported increased rates of bullying/victimization relative to sexual minority youth without disabilities.¹⁶ Research that has utilized adult samples has found that transgender individuals with disabilities were more likely to have experienced numerous forms of victimization including dating violence, sexual assault, and other physical violence.¹⁷ If similar trends exist for youth, it may be that SGM youth with disabilities also experience greater stress and feel less safe at school. Social safety theory suggests that it is not just minority stress that contributes to health problems among SGM youth, but also an absence of social safety (i.e., social connection/belongingness). This absence creates a lack of safety may feed into chronic threat-vigilance which can have negative long-term effects on both mental and physical immunological functioning.¹⁸

To advance an emerging field related to the health and well-being of SGM youth living with disabilities, we utilized a large national dataset to determine whether SGM youth with disabilities experienced greater victimization, bullying, dating violence, stress and a lessened feeling of school safety relative to SGM youth who did not report a disability. Findings may provide school administration opportunities to design and implement policies/programming related to school climate that specifically support SGM students with disabilities.

2. Methods

2.1. Procedures

This was a cross-sectional study using secondary data analysis on the *LGBTQ+ National Teen Survey* collected online in between April and October 2017. To be eligible to participate, youth identified as a gender and/or sexual minority, lived in the United States, were aged 13–17, and were able to read and understand English. To develop the survey instrument, researchers paired with community organizations (e.g., Human Rights Campaign) and drew from validated instruments related to health and school experiences, with advisement from youth stakeholders. The survey was developed in a way that allowed researchers to include a wide variety of health-related experiences, which is typical for surveillance surveys. To recruit participants for this non-probability study, advertisements were placed on several social media platforms, and targeted recruitment materials directed at SGM youth were shared across dozens of LGBTQ-youth serving organizations with the help of the largest LGBTQ + non-profit organization in the U.S., the Human Rights Campaign. Data were cleaned for mischievous responders; when participants responded with multiple unplausible responses (e.g., a gender identity of “Donald Trump” and/or reporting the same quantitative answer to every question in the survey). All participants did not receive direct compensation of participating—there was a drawing for one of 10 gift cards to Amazon. Further information about the study and survey design, data preparation, and data cleaning can be found elsewhere.¹⁹ This study was approved by the University of Connecticut Institutional

Review Board, with waived parental consent and adolescent informed assent collected.

For purposes of this study, participants were excluded who did not respond to the study variables of interest ($n = 5788$), or responded “don't know” to the self-reported disability item ($n = 1906$), resulting in $N = 9418$ participants for the analytic sample. Fig. 1 presents a flow-chart outlining the process of handling missing data. Supplemental Table 1 shows the demographic differences between participants included in the analytic sample compared to excluded participants who answered they did not know whether or not they had a disability.

2.2. Measures

Demographic characteristics. Participants self-reported their age in years. For gender identity we asked participants “What is your current gender identity? Please select all that apply.” Response options included “male,” “female,” “trans boy,” “trans girl,” “nonbinary,” “genderqueer/gender non-conforming,” and a write-in option. For sex assigned at birth, participants were asked “What sex were you assigned at birth?” with response options “male” and “female.” For sexual orientation we asked participants, “How do you describe your sexual identity?” Response options included “gay or lesbian,” “bisexual,” “straight,” and “something else.” For race/ethnicity, participants were asked “How would you describe yourself? (select all that apply)” Response options included “White, non-Hispanic, non-Latino,” “Black or African American,” “American Indian or Alaska Native,” “Asian or Pacific Islander,” “Latino, Hispanic, or Mexican-American,” or “Other.” Participants were asked “In which state do you live,” states were then recoded into 4 regions: Northeast, Midwest, South, and West.

Disability. Participants self-reported *yes, no, or don't know* to “Do you consider yourself to have a disability?” If *yes*, participants were then asked to describe their disability/disabilities with multiple selections allowed. Response options were check-all-that-apply and included *physical, developmental or learning, psychiatric/mental health, or another type of disability, please describe*. Write-in (another type) responses were assigned to one of the first three categories based on usual impact on functioning; e.g., physical disabilities included sensory disabilities.

2.3. Outcome measures

LGBT victimization. Participants self-reported experiences of SGM-based victimization for six experiences, including verbal insults, threats of physical violence, objects thrown at them, and punched, kicked, or beaten.²⁰ In order to assess these experiences, participants were provided the question, “In your lifetime, how often have any of the following happened to you because of your sexual orientation or gender identity or because people think you are lesbian, gay, bisexual, transgender, or queer?” Response options included *never, once, twice, or three or more times*. For analytic purposes the six items were summed into one variable which was then dichotomized such that participants reporting never experiencing LGBT victimization across all six variables were coded as 0, and participants who responded that they were victimized at least once across any of the six variables were coded as 1.

Disability-based bullying. One item asked, “How often have you been teased or treated badly by other students at your school because of your disability?” Response options were *never, rarely, sometimes, often, and very often*. For analytic purposes, this variable was dichotomized; participants reporting never experiencing disability-based victimization were coded as 0, and participants who responded that they were victimized at least once were coded as 1.

Dating violence (past year). Sexual violence was measured with two items: “During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse).” Physical violence was measured with one item: “During the past 12 months, how many times

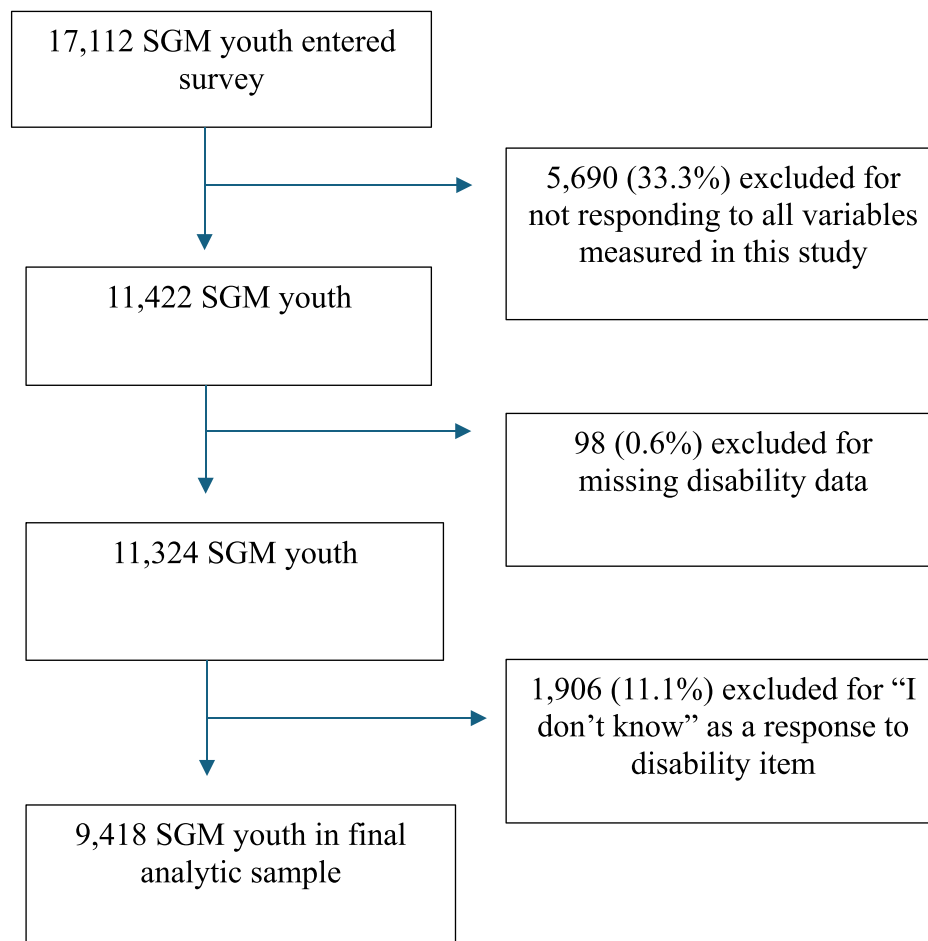


Fig. 1. Flowchart outlining the process of handling missing data.

did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)^{20,21} Response options were 0 = 0 times, 1 = 1 time; 2 = 2–3 times, 3 = 4–5 times, and 4 = 6 or more times. For analytic purposes, both sexual and physical violence variables were summed and then dichotomized into one variable; participants reporting never either form of dating violence experience were coded as 0, and participants who responded that they experienced dating violence more than 1 time across either variable were coded as 1.

School safety. A mean school safety composite score was calculated from an 8-item instrument used in the British Columbia Adolescent Health Survey ($\alpha = 0.91$).²² This instrument asked about students' reported safety in different settings (e.g., bathroom, hallways, and library). Responses options were a 5-point scale from 0 = *Never* to 4 = *Always*.

Average stress. Participants were asked, "Please mark the appropriate number corresponding with your average level of stress," using a 10-point scale adapted from the Perceived Stress Scale.²³

2.4. Analytic plan

Descriptive and regression analyses were conducted using IBM SPSS Statistics Version 25. We dichotomized count outcomes (i.e., LGBT- and disability-based victimization and dating violence). We conducted four separate models for endorsement of any disability (no disability vs. having any disability) and each type of disability (i.e., physical, developmental, and psychiatric) for each outcome. Logistic regressions were used for dichotomous outcomes (LGBT- and disability-based victimization, dating violence) and linear regressions were used for continuous

outcomes (school safety, and stress outcomes). All models adjusted for sociodemographic variables (age, gender identity, sexual orientation, race/ethnicity, and geographical region).

3. Results

Participants were 13–17 years old ($M = 15.62$, $SD = 1.25$). Most participants reported their assigned sex at birth as female (73.4%) and were cisgender (68.9%). Most participants were gay/lesbian (38.2%) or bisexual (34.5%). Participants were mostly White (66.3%), and the largest proportion came from the South (36.5%). Of the total sample, 18.3% reported having any disability, 4.7% a physical disability, 5.9% a developmental disability, and 14.3% a psychiatric disability. Of those reporting a disability, 78.2% reported a psychiatric disability, 32.4% a cognitive disability, and 25.9% a physical disability. More detailed participant information is presented in [Table 1](#).

Results of the regression models are reported in [Table 2](#). All models adjusted for covariates (i.e., age, gender identity, sexual orientation, race/ethnicity, and geographical region). Participants who reported any disability had greater odds of reporting LGBT-based victimization (Adjusted Odds Ratio [AOR] = 1.75, 95% Confidence Interval [CI]: 1.50–2.04), disability-based victimization (AOR = 44.35, 95% CI 37.68–52.19), and dating violence (AOR = 1.45, 95% CI 1.25–1.67), greater average stress ($\beta = 0.11$, $p < 0.001$), and lower levels of school safety ($\beta = -0.159$, $p < 0.001$) than participants without any reported disabilities.

Participants who reported a physical disability had greater odds of reporting LGBT-based victimization (AOR = 1.53, 95% CI 1.16–2.02), disability-based victimization (AOR = 21.04, 95% CI 16.42–26.97), and

Table 1
Sample demographics.

	Total Sample (N = 9418)
	M (SD)
Age	15.62 (1.25)
	N (%)
Sex Assigned at Birth	
Male	2507 (26.6)
Female	6911 (73.4)
Gender Identity	
Cisgender Male	2197 (23.3)
Cisgender Female	4290 (45.6)
Transgender Male	719 (7.6)
Transgender Female	108 (1.1)
Trans-masculine/Non-binary	1902 (20.2)
Trans-feminine/Non-binary	202 (2.1)
Gender Identity	
Cisgender	6487 (68.9)
Transgender	2931 (31.1)
Sexual Orientation	
Gay/Lesbian	3598 (38.2)
Bisexual	3246 (34.5)
Straight	145 (1.5)
Queer	385 (4.1)
Pansexual	1226 (13.0)
Asexual	417 (4.4)
Questioning	218 (2.3)
Other	183 (1.9)
Race/Ethnicity	
Asian or Pacific Islander	375 (4.0)
Black or African American	448 (4.8)
Hispanic/Latino(a)/x	969 (10.3)
American Indian or Alaska Native	42 (0.4)
Multiracial/Biracial	1227 (13.0)
Middle Eastern	60 (0.6)
White	6232 (66.3)
Other	52 (0.6)
Geographical Location	
Northeast	1738 (18.5)
Midwest	2177 (23.1)
South	3441 (36.5)
West	2062 (21.9)
Disability	1719 (18.3)
Any Disability	1723 (18.3)
Physical Disability	446 (4.7)
Developmental Disability	557 (5.9)
Psychiatric Disability	1344 (14.3)

Note. M = mean; SD = standard deviation.

dating violence (AOR = 1.45, 95% CI 1.14–1.86), greater average stress ($\beta = 0.03, p < 0.01$), and lower levels of school safety ($\beta = -0.06, p < 0.001$) than participants without a reported physical disability. Similarly, participants who reported a developmental disability had greater

Table 2
Summary of results of the hierarchical logistic and linear regression models.

	LGBT-based Victimization		Disability-based Victimization		Dating Violence	
	AOR (95% CI)		AOR (95% CI)		AOR (95% CI)	
Any Disability	1.75 (1.51–2.04)		44.35 (37.68–52.19)		1.45 (1.25–1.67)	
Physical Disability	1.53 (1.16–2.02)		21.04 (16.42–26.97)		1.45 (1.14–1.86)	
Developmental Disability	1.71 (1.32–2.21)		16.81 (13.57–20.84)		1.16 (0.92–1.47)	
Psychiatric Disability	1.89 (1.59–2.26)		24.24 (20.77–28.30)		1.52 (1.30–1.77)	
	School Safety		Average Stress			
	B (SE)	β	B (SE)	β		
Any Disability	-0.33 (0.02)	-0.16***	0.58 (0.05)	0.11***		
Physical Disability	-0.23 (0.04)	-0.06***	0.23 (0.10)	0.03*		
Developmental Disability	-0.30 (0.04)	-0.09***	0.39 (0.09)	0.05***		
Psychiatric Disability	-0.35 (0.02)	-0.15***	0.74 (0.06)	0.13***		

Note. The models account for age, gender identity, sexual orientation, race/ethnicity, and geographical region. Each type of disability was entered in a separate model. The reference group in each model is SGM youth without disabilities. AOR = adjusted odds ratio; CI = confidence interval; B = unstandardized beta coefficient; SE = standard error; β = standardized coefficients beta. †p = 0.05 * p < 0.05 **p < 0.01 ***p < 0.001.

odds of reporting LGBT-based victimization (AOR = 1.71, 95% CI 1.32–2.21) and disability-based victimization (AOR = 16.81, 95% CI 13.57–20.84), greater average stress ($\beta = 0.05, p < 0.001$), and lower levels of school safety ($\beta = -0.09, p < 0.001$) than participants without a reported developmental disability; however, there were no differences in dating violence (AOR = 1.16, 95% CI 0.92–1.47). Lastly, participants who reported a psychiatric disability had greater odds of reporting LGBT-based victimization (AOR = 1.89, 95% CI 1.59–2.26), disability-based victimization (AOR = 24.24, 95% CI 20.77–28.30), and dating violence (AOR = 1.52, 95% CI 1.30–1.77), greater average stress ($\beta = 0.13, p < 0.001$), and lower levels of school safety ($\beta = -0.15, p < 0.001$) than participants without a reported psychiatric disability.

While participants with a physical, developmental, and/or psychiatric disability had differences across all measured outcomes compared to not reporting a disability, the odds ratios and standardized betas indicate that these differences were largest for participants with a psychiatric disability.

4. Discussion

Although several social and contextual health disparities have been documented for SGM youth and youth with disabilities, the experiences of youth who are both SGM and have a disability is less clear. To fill this gap in the literature, we identified differences in victimization, dating violence, average stress, and school safety among SGM youth with physical, developmental, and psychiatric disabilities compared to SGM youth without a reported disability.

First, we identified that SGM youth with disabilities experienced both greater average stress and greater heterosexism/cissexism and ableism-based minority stress (i.e., LGBT-based victimization and disability-based bullying). That is, SGM youth with disabilities reported experiencing more stress, bias-based verbal insults, physical violence, and maltreatment relative to SGM peers who did not report a disability. Such findings extend previous research that has found that populations of SGM youth²⁴ and youth with disabilities²⁵ experience more victimization and bullying relative to cisgender heterosexual peers and peers without disabilities. In line with intersectionality theory, youth who hold multiple minoritized identities experience multiple forms of oppression and are targeted by perpetrators of bullying.²⁶ Given that each form of victimization has been individually linked to increased psychological distress including depression and suicidal thoughts, future research that examines the effects of experiencing both biased-based forms of victimization may be particularly important.^{26,27} Future work is also needed to empirically investigate the relationship between bullying, victimization, and violence and stress among SGM youth with disabilities, specifically evaluating the extent to which victimization/violence contributes to stress for these youth.

With the exception of SGM youth with a developmental disability, SGM youth with disabilities reported more instances of intimate partner violence (e.g., being physically hurt or forced to do things sexually) in their dating relationships than SGM youth without disabilities. This research extends the findings of previous research among transgender adults with disabilities,¹⁷ identifying that SGM youth with disabilities also experience greater odds of dating violence. It is possible that perpetrators of dating violence may perceive a power imbalance between themselves and SGM youth with disabilities—exploiting this power dynamic and any physical, mental, and emotional vulnerabilities to force, coerce, and harm these youth. Future research to understand the mechanisms through which this increased violence occurs at the intersection of SGM identity and disability may be particularly helpful for prevention and intervention efforts related to dating violence.

SGM youth with disabilities reported feeling less safe in school environments relative to their SGM peers who did not report having disabilities. This finding is unsurprising as it mirrors previous research that has demonstrated a relationship between victimization and lessened feelings of school safety.²⁷ As put forth by social safety theory, SGM youth with disabilities are exposed to stigma and social marginalization—and thus anticipate danger. This increased threat-vigilance is just as damaging as exposure to minority stressors and may very well contribute to these lessened feelings of safety.¹⁸ SGM youth with disabilities may feel unsafe because of certain school climate factors, including experiences of LGBT- and disability-based victimization and bullying. Future research may be helpful in identifying how these and other factors affect perceptions of school safety for SGM youth with disabilities.

4.1. Limitations

Though we utilized a large national sample of diverse youth of diverse sexual and gender identities, we were unable to test differences by disability type (e.g., autism, ADHD) as only disability category (i.e., physical, developmental, psychiatric) was known about participants. Participants were not provided with a definition of disability in the survey's disability parent question, thus it is possible that participants may not have known how to classify their disability into one of these categories, therefore some disabilities may be categorically misrepresented. Given that disability was only available for a small subset of participants, we were unable to disaggregate by further disability type (e.g., physical included both sensory and mobility). Given the high prevalence of some study outcomes (e.g., disability-based victimization) among participants with disabilities, the parameter estimates may overestimate the true associations between disability status and the study outcomes. Another limitation is the high level of missingness ($n = 5690$) among individuals who were excluded from these analyses for not responding to all study variables. This is noteworthy as it could have biased our estimates. It is also important to consider that developmental disabilities can encompass a wide range of conditions that affect an individual's physical, cognitive, and/or psychiatric functioning. Recognizing this interplay is vital for providing comprehensive and effective support and care for individuals with developmental disabilities. In studying these stress-related outcomes, larger effect sizes were observed across all outcomes when comparing participants with a psychiatric disability to those who did not have a psychiatric disability. Future work may want to also focus on unmet mental healthcare needs within this population. Unmet mental healthcare need may be a confounding variable related to stress, such that unmet mental healthcare needs relate to greater stress above and beyond disability status itself. While this work is exploratory, future work may wish to conduct more nuanced analyses with disaggregated disability types. Given the data were cross-sectional, we are unable to document the effect between disability and the social and contextual variables studied. A large proportion of the sample identified as female and cisgender, thus these results may not be generalizable to youth who do not hold these identities. Last, these data

are not representative of all youth in the United States—though our dataset is large and among only sexual and gender diverse youth, it should not be generalized to all youth living in the United States.

5. Conclusion

As the studied social and contextual differences held across physical, developmental, and psychiatric disability categories, these findings suggest that—above and beyond the specific disability that SGM youth hold—overall, these youth fare worse than SGM youth who do not report having a disability on outcomes of victimization, bullying, dating violence, stress, and school safety. There are likely sources of stigma and minority stressors, specific to both SGM identity and disability, that these youth must contend with which contribute to these differential outcomes. Furthermore, these findings indicate that stakeholders should consider creating and tailoring intersectionally attuned supports that address the interlocking power structures of ableism and cis/heterosexism for SGM youth with disabilities. Prevention and intervention efforts surrounding bullying, victimization, and dating violence for SGM youth with disabilities may be particularly important in protecting the health and wellbeing of these youth.

Conflicts of interest and sources of funding

The authors have no conflicts of interest to report.

CRediT authorship contribution statement

Benton M. Renley: Writing – review & editing, Writing – original draft. **Michael S. Argenyi:** Writing – review & editing, Writing – original draft, Conceptualization. **Ethan H. Mereish:** Writing – review & editing, Methodology, Formal analysis. **Ryan J. Watson:** Writing – review & editing, Supervision, Methodology, Investigation.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.dhjo.2024.101614>.

References

1. Bureau UC. Disability Rates Highest Among American Indian and Alaska Native Children and Children Living in Poverty. Census.gov. Accessed September 1, 2023. <https://www.census.gov/library/stories/2021/03/united-states-childhood-disability-rate-up-in-2019-from-2008.html>.
2. Argenyi MS, Mereish EH, Watson RJ. Mental and physical health disparities among sexual and gender minority adolescents based on disability status. *LGBT Health*. 2023;10(2):130–137. <https://doi.org/10.1089/lgbt.2022.0032>.
3. Haegele JA, Aigner C, Healy S. Impact of weight and disability status on bullying victimization and perpetration among youth. *J Paediatr Child Health*. 2021;57(3):383–387. <https://doi.org/10.1111/jpc.15230>.
4. Mitra M, Mouradian VE, McKenna M. Dating violence and associated health risks among high school students with disabilities. *Matern Child Health J*. 2013;17(6):1088–1094. <https://doi.org/10.1007/s10995-012-1091-y>.
5. Patterson CJ, Sepúlveda MJ, White J, eds. *Understanding the Well-Being of LGBTQI+ Populations*. National Academies Press; 2020. <https://doi.org/10.17226/25877>.
6. Earnshaw VA, Bogart LM, Poteat VP, Reisner SL, Schuster MA. Bullying among lesbian, gay, bisexual, and transgender youth. *Pediatric Clinics*. 2016;63(6):999–1010. <https://doi.org/10.1016/j.pcl.2016.07.004>.
7. Fedewa AL, Ahn S. The effects of bullying and peer victimization on sexual-minority and heterosexual youths: a quantitative meta-analysis of the literature. *J GLBT Fam Stud*. 2011;7(4):398–418. <https://doi.org/10.1080/1550428X.2011.592968>.
8. Murchison GR, Agénor M, Reisner SL, Watson RJ. School restroom and locker room restrictions and sexual assault risk among transgender youth. *Pediatrics*. 2019;143(6):e20182902. <https://doi.org/10.1542/peds.2018-2902>.
9. Rivers I. Recollections of bullying at school and their long-term implications for lesbians, gay men, and bisexuals. *Crisis*. 2004;25(4):169–175. <https://doi.org/10.1027/0227-5910.25.4.169>.
10. Roberts AL, Rosario M, Slopen N, Calzo JP, Austin SB. Childhood gender nonconformity, bullying victimization, and depressive symptoms across adolescence and early adulthood: an 11-year longitudinal study. *J Am Acad Child Adolesc Psychiatr*. 2013;52(2):143–152. <https://doi.org/10.1016/j.jaac.2012.11.006>.

11. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull.* 2003;129(5): 674–697. <https://doi.org/10.1037/0033-2909.129.5.674>.
12. Tejera, Higgins César, Horner-Johnson Willi, Andresen Elena M. Application of an intersectional framework to understanding the association of disability and sexual orientation with suicidal ideation among Oregon Teens. *Disability and health journal.* 2019;12(4):557–563.
13. Parent Mike C, DeBlaere Cirleen, Moradi Bonnie. Approaches to research on intersectionality: perspectives on gender, LGBT, and racial/ethnic identities. *Sex Roles.* 2013;68:639–645.
14. Horner-Johnson Willi. Disability, intersectionality, and inequity: life at the margins. *Public health perspectives on disability: Science, social justice, ethics, and beyond.* 2021: 91–105.
15. Kosciw JG, Clark CM, Truong NL, Zongrone AD, Gay L and SEN (GLSEN). The 2019 National School Climate Survey: The Experiences of Lesbian, Gay, Bisexual, Transgender, and Queer Youth in Our Nation's Schools. Gay, Lesbian and Straight Education Network (GLSEN).
16. Eisenberg ME, Gower AL, McMorris BJ, Bucchianeri MM. Vulnerable bullies: perpetration of peer harassment among youths across sexual orientation, weight, and disability status. *Am J Publ Health.* 2015;105(9):1784–1791. <https://doi.org/10.2105/AJPH.2015.302704>.
17. Messinger AM, Guadalupe-Diaz XL, Kurdyla V. Transgender polyvictimization in the U.S. Transgender survey. *J Interpers Violence.* Published online August 31, 2021: 08862605211039250. doi:10.1177/08862605211039250.
18. Diamond LM, Alley J. Rethinking minority stress: a social safety perspective on the health effects of stigma in sexually-diverse and gender-diverse populations. *Neurosci Biobehav Rev.* 2022;138, 104720. <https://doi.org/10.1016/j.neubiorev.2022.104720>.
19. Watson RJ, Wheldon CW, Puhl RM. Evidence of diverse identities in a large national sample of sexual and gender minority adolescents. *J Res Adolesc.* 2020;30(Suppl 2): 431–442. <https://doi.org/10.1111/jora.12488>.
20. Centers for Disease Control and Prevention. 2017 National Youth Risk Behavior Survey; 2017. https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2017/2017_yrbs_national_hs_questionnaire.pdf.
21. Kann L, Olsen EO, McManus T, et al. Sexual identity, sex of sexual contacts, and health-related behaviors among students in grades 9–12 — United States and selected sites. *MMWR Surveill Summ.* 2015;65(No. SS-9):1–202. <https://doi.org/10.15585/mmwr.ss6509a1>, 2016.
22. Li G, Wu AD, Marshall SK, et al. Investigating site-level longitudinal effects of population health interventions: gay-Straight Alliances and school safety. *SSM Popul Health.* 2019;7, 100350. <https://doi.org/10.1016/j.ssmph.2019.100350>.
23. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav.* 1983;24:385–396. <https://doi.org/10.2307/2136404>.
24. Kaufman TML, Baams L. Disparities in perpetrators, locations, and reports of victimization for sexual and gender minority adolescents. *J Adolesc Health.* Published online August 23, 2021. doi:10.1016/j.jadohealth.2021.06.024.
25. Blake JJ, Lund EM, Zhou Q, Kwok OM, Benz MR. National prevalence rates of bully victimization among students with disabilities in the United States. *Sch Psychol Q.* 2012;27(4):210–222. <https://doi.org/10.1037/spq0000008>.
26. Galán CA, Stokes LR, Szoko N, Abebe KZ, Culyba AJ. Exploration of experiences and perpetration of identity-based bullying among adolescents by race/ethnicity and other marginalized identities. *JAMA New Open.* 2021;4(7), e2116364. <https://doi.org/10.1001/jamanetworkopen.2021.16364>.
27. Day JK, Perez-Brumer A, Russell ST. Safe schools? Transgender youth's school experiences and perceptions of school climate. *J Youth Adolesc.* 2018;47(8): 1731–1742. <https://doi.org/10.1007/s10964-018-0866-x>.