

# UC Davis

## UC Davis Previously Published Works

### Title

Considering the experiences and adjustment of sexual and gender minority youths during the COVID-19 pandemic.

### Permalink

<https://escholarship.org/uc/item/3618r38z>

### Authors

Hastings, Paul D  
Hodge, Ryan T

### Publication Date

2023-07-01

### DOI

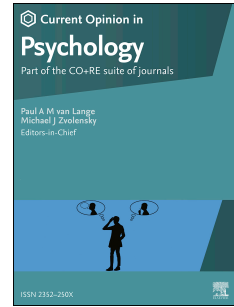
10.1016/j.copsyc.2023.101660

Peer reviewed

# Journal Pre-proof

Considering the Experiences and Adjustment of Sexual and Gender Minority Youths During the COVID-19 Pandemic

Paul D. Hastings, Ryan T. Hodge



PII: S2352-250X(23)00105-7

DOI: <https://doi.org/10.1016/j.copsyc.2023.101660>

Reference: COPSYC 101660

To appear in: *Current Opinion in Psychology*

Received Date: 31 May 2023

Revised Date: 5 July 2023

Accepted Date: 6 July 2023

Please cite this article as: Hastings PD, Hodge RT, Considering the Experiences and Adjustment of Sexual and Gender Minority Youths During the COVID-19 Pandemic, *Current Opinion in Psychology*, <https://doi.org/10.1016/j.copsyc.2023.101660>.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2023 The Author(s). Published by Elsevier Ltd.

Considering the Experiences and Adjustment of Sexual and  
Gender Minority Youths During the COVID-19 Pandemic

Paul D. Hastings<sup>1,2</sup> and Ryan T. Hodge<sup>2,3</sup>

1 Department of Psychology, University of California Davis

2 Center for Mind and Brain, University of California Davis

3 Department of Human Ecology, University of California Davis

Corresponding author:

Paul D. Hastings

pdhastings@ucdavis.edu

Center for Mind & Brain

University of California Davis

267 Cousteau Avenue

Davis, California

95618

## Abstract

Sexual and gender minority (SGM) adolescents and emerging adults experienced social and structural inequities and evinced more psychosocial adjustment difficulties than cisgender, heterosexual youths before the onset of the COVID-19 pandemic. The unique array of stressors confronting SGM youths during the pandemic—including separation from affirming and supportive peers, teachers and communities, and mandated co-residence with potentially rejecting family members—may have exacerbated these discrepancies. Conversely, social distancing and remote learning may have reduced direct exposure to discrimination outside the home, and many SGM youths leveraged their personal and social resources to cope with pandemic-related stressors. This review considers the empirical literature on the academic, psychological, and social consequences of the COVID-19 pandemic on SGM youths.

“We are not all in the same boat.”

Attributed to Damian Barr, 2020 [1]

## 1. Introduction

Structural and social inequities have long contributed to disparities in the health and well-being of diverse communities [2,3]. The COVID-19 global pandemic shone a spotlight on this fact. Both across nations and across communities within nations, there were not equal exposures to pandemic-related risks, nor to the consequences of policies and practices intended to reduce the spread of COVID-19 [4–6]. Sheltering-in-place and quarantine conditions meant crowding and increased risk of transmission for many lower-income and systemically marginalized communities [5,7]. Access to effective remote education, supported by reliable internet service and households with quiet working areas, was inversely related to socioeconomic status, neighborhood infrastructure, and social privilege [8,9]. Anxiety, depression, substance abuse and other problems were most prevalent in economically disadvantaged and ethnically and racially minoritized adults [10] and youths [11,12]. These adverse impacts of the pandemic conditions were prevalent and pernicious for members of queer communities [13], and particularly sexual and gender minority (SGM) adolescents [14,15]. Yet, research with SGM youths also revealed ways in which COVID-19 public health measures alleviated some pre-existing stressors, and ways in which SGM youths coped with the pandemic conditions and found opportunities for agency and growth.

We elect to use the abbreviation SGM in an effort to be maximally inclusive of the panoply of sexual and gender identities endorsed by youths. Other commonly used abbreviations explicitly name a subset of identities, such as LGBTQ+ (lesbian, gay, bisexual, transgender,

questioning/queer +), implicitly relegating individuals with other SGM identities (i.e., pansexual, asexual, non-binary, two-spirited, etc.) to an amorphous “+”, which can be experienced as being placed in a lower-status position. The studies we review varied in their inclusion of SGM youths only, or their comparison of the pandemic-related experiences, mental health and well-being of SGM youths with those of youths identifying as cisgender and heterosexual (CH). We focus on the lived experiences, mental health and psychosocial well-being of SGM adolescents in the second decade of life, spanning ages 10 to 19 years, within the context of the COVID-19 pandemic. We also consider studies with SGM emerging adults in the third decade of life, ages 20 to 29 years. Most of this research has been conducted within the United States (U.S.), and studies both within and outside the U.S. have been informed by earlier theory and research on SGM adolescents and emerging adults, particularly the minority stress model [16–18].

### **2.1 The minority stress model and the lives of SGM youths**

As applied to SGM communities, the minority stress model holds that SGM individuals experience disproportionately high rates of stressful and deleterious proximal (e.g., verbal abuse; social exclusion) and distal (e.g., prevalence of anti-SGM media; limits on health care access) events, expressly because they are not CH [18,19]. Many SGM youths live in regions with restrictive and stigmatizing laws, policies and customs that are enacted at local, state/provincial and national levels and do not pertain to their CH peers [20,21]. SGM youths can face painful daily interactions with peers, teachers and other social partners who endorse heteronormative beliefs and practices that devalue SGM characteristics [22]. Unlike most youths with other marginalized and minoritized social categories, their parents and other caregivers often do not share their SGM identities, and indeed, may criticize or reject their children for having those identities [23–25]. These chronic and pervasive stressors challenge SGM youths’ abilities to

explore and achieve positive regard for their own identity characteristics, and erode mental and physical health [26,27]. Conversely, factors that contribute to SGM youths' psychosocial adjustment and health include laws and practices that confer rights and protections, teachers and peers who are accepting and inclusive, and parents and family members who are supportive and loving. Further, SGM individuals can combat minority stress by actively building their own support networks of "chosen families," creating safe spaces for their communities, and advocating for systemic and structural change [28–30].

This perspective on the lived experiences of SGM adolescents and emerging adults grew from more than three decades of research, which served to inform the expectations and concerns of scholars, educators and practitioners for the kinds of challenges that SGM youths would face in the COVID-19 pandemic [9,15]. A small but growing empirical literature suggests that the pandemic conditions adversely impacted SGM youths to a greater extent than their CH peers, exacerbating pre-existing stressors and disparities and undercutting sources of support and resilience. At the same time, pre-existing stressors experienced by some SGM youths were alleviated by changes like remote education, and SGM youths and their allies actively coped, and sometimes thrived, despite pandemic-related challenges.

### **3. SGM adolescents and emerging adults during the COVID-19 pandemic**

#### **3.1. *Mental health***

SGM youths evinced higher rates of anxiety, depression, suicidality, substance use and other mental health problems than their CH peers prior to the onset of the pandemic. This difference was maintained or exacerbated during the pandemic [31,32]. Examining data from a U.S. national text-based crisis response online, Runkle and colleagues [12] found that SGM youths were more likely to have serious depression, self-harm and suicidality than CH youths during the

first 9 months of the pandemic, and these problems were more prevalent for SGM youths during the pandemic than in the preceding 3 years. Using the Adolescent Behaviors and Experiences Survey administered to U.S. high school students in the first 6 months of 2021, Jones and colleagues [33] reported that SGM adolescents had poor mental health at twice the rate (60%) of CH students, including suicidal ideation and attempts, and persistent sadness and hopelessness. In their comparison of 2018 and 2021 data on Wisconsin middle- and high-school students, Gill and McQuillan [34] found that SGM adolescents reported more anxiety and suicidality than CH adolescents at both periods, with the differential rates increasing across assessments for anxiety but decreasing for suicidality. SGM youths also had less access to mental and physical health services during the pandemic, or were more likely to have their health care disrupted, than CH youths [32,35,36].

### **3.2. Parents, families, and home life**

SGM youths found their parents and families to be less supportive and close and more critical and rejecting than CH youths during the pandemic [15,25,32,35,37,38]. In the 2021 Adolescent Behaviors and Experiences Survey, SGM high-school students reported that their families had higher rates of parental job loss and hunger than CH students, and that they experienced more emotional and physical abuse from a parent [39]. In a separate survey of SGM adolescents in the U.S., reports of anxiety, depression and family rejection were more prevalent for youths with a parent who had experienced job loss [40]; family rejection mediated the association of household job loss with adolescents' anxiety and depression symptoms. For many SGM emerging adults who had left their family home for college, returning to live with their families during the pandemic meant "going back into the closet" (being less open about their



SGM identities [15,41]), and feeling more stigmatized and burdensome [37,38], with detrimental consequences for identity expression, as well as mental health and well-being [42].

Yet for some SGM youths, there also were positive aspects of the increased family contact created by the periods of remote schooling and work, and social distancing from others [43]. SGM youths with greater support from their co-resident family members experienced less stigma, felt less burdensome and had better well-being [38,44]. The mandated family closeness provided opportunities to reconnect and build closeness with supportive family members [38,44], as well as to engage in discussions about SGM identities and issues [14].

### **3.3. Peers and friends, schools and education**

Adolescence is normatively a period of heightened social orientation. Like CH youths, SGM youths reported distress about the disruptions to their social networks and separation from their peers and friends that resulted from pandemic conditions [12,32,45,46]. Similarly, many SGM youths deeply felt the loss of support and belonging that came from allied teachers and school programs like Gay-Straight Alliances [9,14,25,47,48]. As the pandemic continued and remote learning conditions ebbed and flowed, SGM youths expressed more anxiety and anger in online posts during the periods following school closures [46]. There is evidence as well that SGM youths felt more impacted by school closures [45] and had more difficulty completing their schoolwork than did CH youths [39]. Yet, unsupportive and rejecting peers and school settings often are sources of stress for SGM youths, and the initiation of remote learning also led to decreased peer victimization and less interaction with discriminatory school personnel and policies [25,34]. Thus, as with the increased time at home with families, the decreased time at school and with peers carried both negative and positive consequences for SGM youths.

### **3.4. Social media and virtual community**

Across numerous studies, being socially connected, supported, accepted and able to express their SGM identities have proven to be vital for the health and well-being of SGM adolescents and emerging adults. When in-person relationships and programs became untenable with the onset of social distancing practices in the spring of 2020, online services and platforms became critical for addressing these needs [33,49]. SGM youths intentionally used social media to maintain relationships and build new connections and community with other SGM youths, seek information and resources, find safe spaces to express their SGM identities, and buffer themselves from a lack of support in their homes [25,43,46,47]. For instance, one study of virtual “daycamps” for SGM adolescents found that the experience bolstered feelings of safety and belonging, reduced depression, and led to new friendships [50]. However, the distress and mental health problems reported by SGM youths also were reflected in their online interactions. Another study found that postings to a SGM teen forum on Reddit in the first year of the pandemic were more negative in tone than postings to a general teen Reddit forum [46].

### **3.5. Coping**

In interviews with SGM adolescents about their methods of self-care during the pandemic [43], spending time with others (in-person and online) was the most important coping method reported. It was, however, not the only one. SGM youths also established daily routines that helped to foster a sense of normalcy; engaged in meditation, exercise, healthy eating and maintaining their appearance; and pursued hobbies and creative activities that were restful and restorative [43]. Cognitive reappraisal was another skill that appeared to be protective against persistent negative emotions [49]. Potentially less beneficial was a tendency of some SGM youths to “tune out” and disconnect from activities and other people. While avoidant coping may

have conferred short-term benefits, it also carried risks of increased substance use, anxiety and depression [51].

#### **4. Open questions and future directions**

There is still much to learn and understand about the experiences of SGM youths during the COVID-19 pandemic, and the implications of these experiences going forward. To date, we are not aware of any studies of SGM youths that incorporated neurobiological measures, despite considerable evidence that serious and chronic stressors, like those experienced during the pandemic, convey their effects on mental and physical health via neurobiological mechanisms [2,52]. Notably, the substantial majority of empirical studies were conducted in the U.S. More study of global communities of SGM youths is needed, as pandemic and other social and structural conditions varied widely around the world [2]. Similarly, although some studies of SGM youths conducted in the U.S. included ethnically and racially diverse samples [12], an intersectionality lens has rarely been applied in the research. The Trevor Project [32] noted that Black SGM youths felt more stressed, socially isolated, and unable to access health care than White SGM youths and Black CH youths. Potential reasons for these differences were unspecified, but the findings illustrate that the COVID-19 experiences of SGM youths of color may not be equivalent to, or easily inferred from, the experiences of predominantly White SGM youths or predominantly CH youths of color [19]. Other events of major societal import also occurred during the pandemic, such as the Black Lives Matter protests, contentious election cycles in the U.S. and other countries, the Monkey Pox epidemic, civil and international wars, and more. Stevens and colleagues [46] found that the content and tone of SGM youths' online posts covaried with such events, but there has been relatively little empirical attention given to

the impacts and implications of these compounded stressors on the health and well-being of SGM adolescents and emerging adults.

Within the U.S., SGM communities, and especially transgender and non-binary youth, have been faced with the dual pandemics of COVID-19 and mounting legislative attacks on their rights and freedoms. Since 2020, state and local jurisdictions have proposed several hundred new bills and provisions, many of which have passed, that impose limitations on SGM youth for accessing gender-affirming healthcare, receiving inclusive and affirming education, being involved in sports and other extracurricular activities, using public accommodations (i.e., washrooms), and even engaging in free speech [53]. These structural and systemic barriers to equity, opportunity and healthcare profoundly threaten the health and wellbeing of SGM youths [54], and may have exacerbated the pernicious effects of the COVID-19 pandemic by stripping away the few precarious sources of support that were available to SGM youths in many jurisdictions. Anti-SGM legislation is by no means unique to U.S. jurisdictions (e.g., [55]), and failing to address the particular needs of SGM communities during periods of public health crises is a global problem [56].

## **5. Conclusion**

The expression “same storm, different boats” barely scratches the surface of the unique experiences of SGM adolescents and emerging adults during the protracted period of the COVID-19 pandemic. The research that has been conducted with these communities has been vital for revealing the profound challenges they have faced, the adverse impacts they have suffered, and also the personal and social resources that SGM youths have mustered to cope with these challenges and mitigate these impacts. There has been suffering and loss, and there has been resilience and growth. Yet, with an empirical literature still numbering in the low double-

digits, we are only at the beginning of understanding the effects and the implications of the past 3 years on the life courses of this generation of SGM youths.

Journal Pre-proof

## Acknowledgements

The authors would like to thank Dr. Luis A. Parra and Dr. Jessica N. Fish for recommending some cited works, and Ms. Enya Daang for assisting with manuscript preparation.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Journal Pre-proof

## References

- [1] Barr D: We are not all in the same boat. We are all in the same storm. Some are on super-yachts. Some have just the one oar. Damian Barr 2020.  
<https://www.damianbarr.com/latest/https/we-are-not-all-in-the-same-boat>.
- [2] Hastings PD, Guyer AE, Parra LA: Conceptualizing the influence of social and structural determinants of neurobiology and mental health: Why and how biological psychiatry can do better at addressing the consequences of inequity. *Biol Psychiatry Cogn Neurosci Neuroimaging* 2022, 7:1215–24. <https://doi.org/10.1016/j.bpsc.2022.06.004>.
- [3] World Health Organization: Social determinants of mental health. Geneva: World Health Organization; 2014.
- [4] Bowleg L: We're not all in this together: On COVID-19, intersectionality, and structural inequality. *Am J Public Health* 2020, 110:917. <https://doi.org/10.2105/AJPH.2020.305766>.
- [5] Feldman JM, Bassett MT: Variation in COVID-19 mortality in the US by race and ethnicity and educational attainment. *JAMA Netw Open* 2021, 4:e2135967.  
<https://doi.org/10.1001/jamanetworkopen.2021.35967>.
- [6] Music G: Covid, racism and Black Lives Matter: A deadly constellation. *Dev Child Welf* 2020, 2:197–207. <https://doi.org/10.1177/2516103220959814>.
- [7] Lassale C, Gaye B, Hamer M, Gale CR, Batty GD: Ethnic disparities in hospitalisation for COVID-19 in England: The role of socioeconomic factors, mental health, and inflammatory and pro-inflammatory factors in a community-based cohort study. *Brain Behav Immun* 2020, 88:44–9. <https://doi.org/10.1016/j.bbi.2020.05.074>.
- [8] Haley ED: We are not in the same boat. *High Ed* 2020.  
<https://www.insidehighered.com/blogs/gradhacker/we-are-not-same-boat>.
- [9] Poteat VP, Marx RA, Calzo JP, Toomey RB, Ryan C, Clark CM, Gülgöz S: Addressing inequities in education during the COVID-19 pandemic: How education policy and schools can support historically and currently marginalized children and youth. Society for Research in Child Development; 2020.
- [10] Ettman CK, Abdalla SM, Cohen GH, Sampson L, Vivier PM, Galea S: Low assets and financial stressors associated with higher depression during COVID-19 in a nationally representative sample of US adults. *J Epidemiol Community Health* 2021, 75:501–8.  
<https://doi.org/10.1136/jech-2020-215213>.
- [11] Li W, Wang Z, Wang G, Ip P, Sun X, Jiang Y, Jiang F: Socioeconomic inequality in child mental health during the COVID-19 pandemic: First evidence from China. *J Affect Disord* 2021, 287:8–14. <https://doi.org/10.1016/j.jad.2021.03.009>.
- [12] Runkle JD, Yadav S, Michael K, Green S, Weiser J, Sugg MM: Crisis response and suicidal patterns in U.S. youth before and during COVID-19: A latent class analysis. *J Adolesc Health* 2022, 70:48–56. <https://doi.org/10.1016/j.jadohealth.2021.10.003>.
- [13] Parenteau AM, Boyer CJ, Campos LJ, Carranza AF, Deer LK, Hartman DT, Bidwell JT, Hostinar CE: A review of mental health disparities during COVID-19: Evidence, mechanisms, and policy recommendations for promoting societal resilience. *Dev Psychopathol* 2022, 1–22. <https://doi.org/10.1017/S0954579422000499>.
- [14] Fish JN, Bishop MD, Poteat VP: LGBTQ+ youth and COVID-19 pandemic. In: COVID-19 and Childhood Inequality. Edited by Khan N. Routledge; 2022:35-44.

- [15] Salerno JP, Devadas J, Pease M, Nketia B, Fish JN: Sexual and gender minority stress amid the COVID-19 pandemic: Implications for LGBTQ young persons' mental health and well-being. *Public Health Rep* 2020, 135:721–7. <https://doi.org/10.1177/0033354920954511>.
- [16] Brooks VR: *Minority stress and lesbian women*. Lexington, MA: Lexington Books; 1981.
- [17] Meyer IH: Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychol Bull* 2003, 129:674–97. <https://doi.org/10.1037/0033-2909.129.5.674>.
- [18] Meyer IH: Identity, stress, and resilience in lesbians, gay men, and bisexuals of color. *Couns Psychol* 2010, 38:442–54. <https://doi.org/10.1177/0011000009351601>.
- [19] Parra LA, Hastings PD: Integrating the neurobiology of minority stress with an intersectionality framework for LGBTQ-Latinx populations. *New Dir Child Adolesc Dev* 2018, 2018(161):91–108.
- [20] Hatzenbuehler ML, Link BG: Introduction to the special issue on structural stigma and health. *Soc Sci Med* 2014, 103:1–6. <https://doi.org/10.1016/j.socscimed.2013.12.017>.
- [21] Hatzenbuehler ML, McLaughlin KA: Structural stigma and hypothalamic–pituitary–adrenocortical axis reactivity in lesbian, gay, and bisexual young adults. *Ann Behav Med* 2014, 47:39–47. <https://doi.org/10.1007/s12160-013-9556-9>.
- [22] Kosciw JG, Greytak EA, Zongrone AD, Clark CM, Truong NL: The 2017 national school climate survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools. GLSEN; 2018.
- [23] Bouris A, Guilamo-Ramos V, Pickard A, Shiu C, Loosier PS, Dittus P, Gloppen K, Waldmiller JM: A systematic review of parental influences on the health and well-being of lesbian, gay, and bisexual youth: Time for a new public health research and practice agenda. *J Prim Prev* 2010, 31:273–309. <https://doi.org/10.1007/s10935-010-0229-1>.
- [24] D'Augelli AR, Hershberger SL, Pilkington NW: Lesbian, gay, and bisexual youth and their families: Disclosure of sexual orientation and its consequences. *Am J Orthopsychiatry* 1998, 68:361–71.
- [25] \*\*Fish JN, McInroy LB, Pacey MS, Williams ND, Henderson S, Levine DS, Edsall RN: “I’m kinda stuck at home with unsupportive parents right now”: LGBTQ youths’ experiences with COVID-19 and the importance of online support. *J Adolesc Health* 2020, 67:450–2. <https://doi.org/10.1016/j.jadohealth.2020.06.002>.  
**This study is a qualitative examination of text chats from SGM youths in March and April 2020. Compared to CH youths, SGM youths experienced lower mental health and quality of life, as well as greater psychological distress and fatigue. Gay, lesbian, and bisexual youths also reported greater stress than CH youth.**
- [26] Parra LA, Hastings PD: Challenges to identity integration indirectly link experiences of heterosexist and racist discrimination to lower waking salivary cortisol in sexually diverse Latinx emerging adults. *Front Psychol* 2020, 11:228. <https://doi.org/10.3389/fpsyg.2020.00228>.
- [27] Russell ST, Fish JN: Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annu Rev Clin Psychol* 2016, 12:465–87. <https://doi.org/10.1146/annurev-clinpsy-021815-093153>.
- [28] Frost DM, Fine M, Torre ME, Cabana A: Minority stress, activism, and health in the context of economic precarity: Results from a national participatory action survey of lesbian, gay, bisexual, transgender, queer, and gender non-conforming youth. *Am J Community Psychol* 2019, 63:511–26. <https://doi.org/10.1002/ajcp.12326>.



- [29] Weeks J, Heaphy B, Donovan C: Same sex intimacies: Families of choice and other life experiments. London, England: Psychology Press; 2001.
- [30] Zimmerman L, Darnell DA, Rhew IC, Lee CM, Kaysen D: Resilience in community: A social ecological development model for young adult sexual minority women. *Am J Community Psychol* 2015, 55:179–90. <https://doi.org/10.1007/s10464-015-9702-6>.
- [31] Green AE, Price-Feeney M, Dorison SH.]: Implications of COVID-19 for LGBTQ youth mental health and suicide prevention. New York, NY: The Trevor Project; 2020.
- [32] The Trevor Project: How COVID-19 is impacting LGBTQ youth. The Trevor Project; 2020.
- [33] \*\*Jones SE, Ethier KA, Hertz M, DeGue S, Le VD, Thornton J, Lim C, Dittus P, Geda S: Mental health, suicidality, and connectedness among high school students during the COVID-19 pandemic — Adolescent behaviors and experiences survey, United States, January–June 2021. *MMWR Suppl* 2022, 71(3):16–21. <https://doi.org/10.15585/mmwr.su7103a3>.  
**In this examination of a 2021 national survey of U.S. high school students, SGM adolescents exhibited a significantly higher rate (60%) of poor mental health compared to CH youths, including higher occurrences of suicidal ideation and attempts, as well as persistent feelings of sadness and hopelessness.**
- [34] \*\*Gill EK, McQuillan MT: LGBTQ+ students’ peer victimization and mental health before and during the COVID-19 pandemic. *Int J Environ Res Public Health* 2022, 19:11537. <https://doi.org/10.3390/ijerph191811537>.  
**This is a quantitative examination of mental health and peer victimization of SGM and CH high school students in Wisconsin in 2018 and 2021. Compared to CH students, SGM students LGBTQ+ students experienced more peer victimization, anxiety, and suicide attempts at both time points. SGM students experienced increased anxiety and decreased peer victimization during the pandemic compared to before the pandemic.**
- [35] Hawke LD, Hayes E, Darnay K, Henderson J: Mental health among transgender and gender diverse youth: An exploration of effects during the COVID-19 pandemic. *Psychol Sex Orientat Gend Divers* 2021, 8:180–7. <https://doi.org/10.1037/sgd0000467>.
- [36] Sanchez TH, Zlotorzynska M, Rai M, Baral SD: Characterizing the impact of COVID-19 on men who have sex with men across the United States in April, 2020. *AIDS Behav* 2020, 24:2024–32. <https://doi.org/10.1007/s10461-020-02894-2>.
- [37] Gonzales G, Loret de Mola E, Gavulic KA, McKay T, Purcell C: Mental health needs among lesbian, gay, bisexual, and transgender college students during the COVID-19 pandemic. *J Adolesc Health* 2020, 67:645–8. <https://doi.org/10.1016/j.jadohealth.2020.08.006>.
- [38] López-Sáez MÁ, Platero RL: Spanish youth at the crossroads of gender and sexuality during the COVID-19 pandemic. *Eur J Womens Stud* 2022, 29:90S-104S. <https://doi.org/10.1177/13505068221076319>.
- [39] \*\*Krause KH, Verlenden JV, Szucs LE, Swedo EA, Merlo CL, Niolon PH, Leroy ZC, Valerie SM, Deng X, Lee S, et al: Disruptions to school and home life among high school students during the COVID-19 pandemic — Adolescent behaviors and experiences survey, United States, January–June 2021. *MMWR Suppl* 2022, 71:28–34. <https://doi.org/10.15585/mmwr.su7103a5>.

**In this examination of a 2021 national survey of U.S. high school students, SGM youths experienced greater parental job loss, emotional and physical abuse from a parent, and difficulty completing homework during the pandemic, compared to CH youths.**

- [40] \*\*Parra LA, O'Brien RP, Schrage SM, Goldbach JT: COVID-19-related household job loss and mental health in a nationwide United States sample of sexual minority adolescents. *Behav Med* 2021, Advance online publication: 1-10.  
<https://doi.org/10.1080/08964289.2021.1977604>.

**This study is a quantitative examination of 769 SGM adolescents' responses to a U.S. online poll conducted in May 2020. SGM adolescents who had a parent experiencing job loss reported elevated levels of anxiety and depression, compared to youths with parents who did not experience job loss. Increased family rejection of SGM youths mediated the association of parental job loss with poorer mental health.**

- [41] Hanna-Walker V, Lawrence SE, Clark AN, Walters TL, Lefkowitz ES: "It's like an elephant in the room with my family": LGBTQ+ college students' identity expression during the COVID-19 pandemic. *J Adolesc Res* 2023.  
<https://doi.org/10.1177/07435584221149372>.
- [42] Fish JN, Salerno J, Williams ND, Rinderknecht RG, Drotning KJ, Sayer L, Doan L: Sexual minority disparities in health and well-being as a consequence of the COVID-19 pandemic differ by sexual identity. *LGBT Health* 2021, 8:263–72.  
<https://doi.org/10.1089/lgbt.2020.0489>.
- [43] \*\*O'Brien RP, Parra LA, Cederbaum JA: "Trying my best": Sexual minority adolescents' self-care during the COVID-19 pandemic. *J Adolesc Health* 2021, 68:1053–8.  
<https://doi.org/10.1016/j.jadohealth.2021.03.013>.

**This study is a qualitative examination of 770 SGM adolescents' open-ended responses to a U.S. online poll conducted in May 2020. Thematic analysis of these responses revealed five self-care practices that SGM youths used early in the pandemic: establishing daily routines, engaging in meditation, exercising, eating healthy and maintaining their appearance, and pursuing hobbies and creative activities.**

- [44] \*Zhang Y, Farina RE, Lawrence SE, Walters TL, Clark AN, Hanna-Walker V, Lefkowitz ES: How social support and parent-child relationship quality relate to LGBTQ+ college students' well-being during COVID-19. *J Fam Psychol* 2022, 36:653–60.  
<https://doi.org/10.1037/fam0000981>.

**In this quantitative examination of 366 SGM college students' responses to a U.S. online poll in April and May 202, more social support from both family and friends, and higher quality relationships with mothers and fathers, were associated with greater well-being. These associations were equally true of SGM college students who had versus had not disclosed their SGM identities, and who were versus were not living with their parents.**

- [45] \*Mitchell KJ, Ybarra ML, Banyard V, Goodman KL, Jones LM: Impact of the COVID-19 pandemic on perceptions of health and well-being among sexual and gender minority adolescents and emerging adults. *LGBT Health* 2022, 9:34–42.  
<https://doi.org/10.1089/lgbt.2021.0238>.

**This study used a mixed-method approach to examine the different effects of the pandemic on youths' health and behaviors. SGM youth reported more perceived**

**impacts of the pandemic in several areas (i.e., mental, physical, school, screentime) compared to CH youth. Both cisgender sexual minority females and gender minority youth experienced the most significant impact on their mental health. Gender minority youth reported a decreased sense of connection to their families and a diminished sense of safety at home due to the pandemic.**

- [46] \*Stevens HR, Acic I, Rhea S: Natural language processing insight into LGBTQ+ youth mental health during the COVID-19 pandemic: Longitudinal content analysis of anxiety-provoking topics and trends in emotion in LGBTeens Microcommunity Subreddit. *JMIR Public Health Surveill* 2021, 7:e29029. <https://doi.org/10.2196/29029>.  
**In this qualitative examination of almost 40,000 postings by SGM youths to an online forum both before and after the onset of the pandemic, increases in tones of anger, sadness, and anxiety were seen during the pandemic. The content of the discussed topics relating to anxiety (e.g., coming out, discrimination) did not change much, but the frequency increased during pandemic.**
- [47] Karim S, Choukas-Bradley S, Radovic A, Roberts SR, Maheux AJ, Escobar-Viera CG: Support over social media among socially isolated sexual and gender minority youth in rural U.S. during the COVID-19 pandemic: Opportunities for intervention research. *Int J Environ Res Public Health* 2022, 19:15611. <https://doi.org/10.3390/ijerph192315611>.
- [48] Pacey MS, Okrey-Anderson S, Fish JN, McInroy L, Lin M: Beyond a shared experience: Queer and trans youth navigating COVID-19. *Qual Soc Work* 2021, 20:97–104. <https://doi.org/10.1177/1473325020973329>.
- [49] \*\*Perl L, Oren A, Klein Z, Shechner T: Effects of the COVID19 pandemic on transgender and gender non-conforming adolescents' mental health. *Psychiatry Res* 2021, 302:114042. <https://doi.org/10.1016/j.psychres.2021.114042>.  
**This study is a quantitative examination of youths' online retrospective reports of mental health prior to the onset of the pandemic and concurrent reports during the pandemic. Or both periods, transgender and gender non-conforming youth reported more negative emotions than cisgender youth. During the pandemic, cisgender youth used cognitive reappraisal more than they used suppression to cope with their negative emotions, whereas transgender and non-conforming youth did not differ in their use of cognitive reappraisal nor suppression.**
- [50] \*Gillig TK, Macary J, Price R: Virtual camp: LGBTQ youths' collective coping during the COVID-19 pandemic. *Int J Commun* 2022, 16:981–1005.  
**This pair of studies examine SGM youths' online reports of coping and engagement in virtual camps following school closures in 2020. In Study 1, youths reported five coping strategies: developing unique social support networks, maintaining contact with trusted individuals, staying in LGBT safe spaces, grounding through synchrony, and filling unscheduled time. In Study 2, after participating in virtual camps youths reported fewer depressive symptoms and new friendships, which especially benefitted youths with lower self-esteem prior to camp participation.**
- [51] Dyar C, Morgan E, Kaysen D, Newcomb ME, Mustanski B: Risk factors for elevations in substance use and consequences during the COVID-19 pandemic among sexual and gender minorities assigned female at birth. *Drug Alcohol Depend* 2021, 227:109015. <https://doi.org/10.1016/j.drugalcdep.2021.109015>.

- [52] Hostinar CE, Swartz JR, Alen NV, Guyer AE, Hastings PD: The role of stress phenotypes in understanding childhood adversity as a transdiagnostic risk factor for psychopathology. *J Abnorm Psychol* 2021. <https://doi.org/10.1037/abn0000619>.
- [53] ACLU: Mapping attacks on LGBTQ rights in U.S. state legislatures. ACLU 2023. <https://www.aclu.org/legislative-attacks-on-lgbtq-rights?impact=>.
- [54] Toomey RB, McGuire JK, Olson KR, Baams L, Fish JN: Gender-affirming policies support transgender and gender diverse youth's health. *Society for Research in Child Development*; 2022.
- [55] McKenzie D, Brennan E: Ugandan president signs one of the world's harshest anti-LGBTQ bills into law. CNN 2023.
- [56] \*Salerno JP, Doan L, Sayer LC, Drotning KJ, Rinderknecht RG, Fish JN: Changes in mental health and well-being are associated with living arrangements with parents during COVID-19 among sexual minority young persons in the U.S. *Psychol Sex Orientat Gend Divers* 2023, 10:150–6. <https://doi.org/10.1037/sgd0000520>.  
**This study is a quantitative examination of youths' responses to a U.S. online poll in the early months of the pandemic. SGM youths living in the homes of their families-of-birth during the pandemic reported greater mental distress and lower well-being than SGM youths not living with their families-of-birth. These associations were not observed for CH youths.**

**Declaration of interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Journal Pre-proof