



Published in final edited form as:

J Adolesc Health. 2022 September ; 71(3): 293–300. doi:10.1016/j.jadohealth.2022.03.012.

At the Intersections: Examining trends in experiences of violence, mental health status, and suicidal risk behaviors among U.S. high school students using intersectionality, national Youth Risk Behavior Survey, 2015–2019

Kathleen H. Krause, PhD¹, Jonetta Mpofu, PhD¹, Melissa Brown, DrPH², Adriana Rico, MPH¹, Courtni Andrews, MPH³, J. Michael Underwood, PhD¹

¹Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention

²Division of Injury Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

³Office of Minority Health and Health Equity, Centers for Disease Control and Prevention

Abstract

Objectives: Surveillance data are used for public health action, but the practice of analyzing data by single demographic characteristics may produce findings that reflect abstract categories rather than a person's lived experience. Intersectionality is a theoretical framework that advocates for individuals to be recognized as the whole of their identity and within context of power structures. Using the national Youth Risk Behavior Survey 2015–2019, we examined five-year trends in experiencing violence, poor mental health, and suicidal risk behavior among U.S. high school students using intersections of race/ethnicity and sex.

Methods: We used SUDAAN to calculate prevalence estimates and logistic regression models to assess for linear trends while accounting for the weighting and complex survey design.

Results: Among all students in aggregate, experiencing dating violence decreased while being threatened with a weapon at school and feeling persistently sad or hopeless increased over time; however, these trends did not apply to most students when stratified by identity. The one near-universal experience was that students in aggregate and almost all identities had an increased trend of skipping school because they felt unsafe there.

Conclusions: By focusing on identities defined by two main drivers of health disparities; race/ethnicity and sex, we found that changes in risk behaviors did not occur equally among students and that prevalence estimates were highest among Black males, Black females, and Hispanic females. We outlined the power structures that frame the current educational environment. Patterns

Corresponding author: Kathleen H. Krause, PhD, oko0@cdc.gov, Fax: 404-718-8010, Mailing address: 1600 Clifton Rd, NE, MS: US8-1, Atlanta, GA 30329-4027.

Disclaimer:

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

of health disparities can be highlighted by analyzing surveillance data through an intersectional lens.

Healthy People 2030 has objectives to reduce experiences of violence and suicidal behaviors among adolescents (1, 2) and to promote health equity (3). Violence is a public health problem, particularly for adolescents, whose experiences of violence are associated with several risk behaviors and adverse health outcomes throughout their life course (4). Poor mental health and suicidal behavior can serve as correlates, precursors, and/or outcomes of experiencing violence (5–7).

Public health surveillance on adolescent behaviors provides population-level prevalence estimates and trends to measure the status of these objectives. The Youth Risk Behavior Survey (YRBS) is a national surveillance system run by the Centers for Disease Control and Prevention. Official reports share prevalence estimates and trends in health risk behaviors among all high school students in the United States and stratified by demographic characteristics of sex, race/ethnicity, and sexual identity (8, 9). Although population averages and comparisons based on a single attribute of identity, such as sex or race, are the foundation of epidemiology (and reveal health disparities), the examination of a health behavior in aggregate or through one aspect of identity may be inadequate. Disaggregating individuals into singular demographic characteristics and then analyzing the relationship of each demographic characteristic, piecemeal, to a health behavior is problematic. This practice acknowledges neither the heterogeneity that exists within that grouping nor that an individual's identity is comprised of multiple mutually reinforcing demographic (and other) characteristics (10). While overall population averages and analyses that isolate one demographic characteristic to describe the prevalence of a health behavior maximizes generalizability, it is questionable whether these approaches maximize the validity of adolescents' experiences (11). Examining health behaviors by sex or by race alone tells a part of the story within the data, but it may not reveal the full story.

Intersectionality frames identity as a social construct reflecting the synergistic relationship between social determinants; originally focusing on race and sex. Social determinants exist at the highest level of the social ecological model but create power structures that are expressed through communal and institutional policies and practices and affect individuals' health. From its origins in Black feminism, intersectionality addresses how systems and structures operate by providing historical context to bring the social construction of identity to the forefront of analysis (12–14). Identity, therefore, can be defined as the experience of embodying multiple demographic characteristics that dictate how one is treated by societal institutions and other individuals throughout history (15, 16). The heterogeneity of experience (and subsequently, health disparities) is often caused by the underlying social and historical power dynamics that shape identity (12, 14). Schools are one such environment where historical power dynamics intersect with students who have diverse identities.

Schools promote academic learning and facilitate student health and development (17). However, because schools are not neutral sites, they need to be examined within the historical context of systems of power that structured education in the United States. (18). For example, in 1875, Native American children were separated from their families

and forced to attend boarding schools funded by the federal government with the aim to assimilate them to White Christianity (19). In 1896, *Plessy v. Ferguson* legalized racial segregation in American institutions (20), including schools, while state laws and practices explicitly implemented segregated schools for Black, Chinese, and Mexican American students, separating them from White students (21, 22). Schools were legally segregated by race until the *Brown v. Board of Education* ruling from 1954 (23); however, some argue that school segregation has been increasing since the 1990s (24). *Title IX* legislation was enacted in 1972 to prevent discrimination based on sex in educational settings that received federal funding (25), and more recently, based on sexual orientation and gender identity (26). While not exhaustive, these are prominent examples of legislation 4 that have coded race, ethnicity, sex, sexual orientation, and gender identity to shape the current educational landscape.

Notably, these policies focused on denying or ensuring rights to individuals based on a single aspect of identity, which reinforces the importance of intersectionality. Intersectionality demonstrates that policies that essentialize individuals to one aspect of their identity, even when promoting rights, inevitably fail to protect all individuals who possess that demographic characteristic because an individual's experience is determined by all aspects of their identity. Accordingly, because surveillance data often summarizes populations in total or examines adolescents by single demographic characteristics, resulting programs and policies also essentialize individuals and presumably fail to have an equal impact on promoting the health of all students.

We examined trends in violence, mental health status, and suicidal behavior among adolescents from the 2015–2019 national YRBS using intersectionality and argue that an intersectional approach is needed to meet the Healthy People 2030 objectives.

Methods

Sample

We used surveillance data from the 2015, 2017, and 2019 national YRBS. CDC has conducted the YRBS every two years since 1991 and produces nationally representative estimates of health risk behaviors. Adolescents who attend high school are included in the sample. Schools administer the surveys to students during class time via paper and pencil, and participation is voluntary. Additional details about the sampling strategy, methods of data collection, and questionnaire have been described in the literature (27). This secondary analysis of the national YRBS was exempt from IRB review. Students who 5 responded to the questions about sex, race, and ethnicity were included in our sample (in 2015 N=15,624; in 2017 N=14,765; and in 2019 N=13,677).

Measures

Demographic characteristics.—Students indicated their sex as *female* or *male* (sex refers to sex assigned at birth; the national YRBS does not include a question about gender identity). Students selected all applicable categories to describe their race, which included *American Indian/Alaska Native, Asian, Black or African American, Native Hawaiian or*

other Pacific Islander, or *White*. Students were asked to indicate if they are Hispanic or Latino to determine their ethnicity. We combined the race/ethnicity questions following standard practice for reporting YRBS data where endorsement of Hispanic/Latino origin categorizes youth as Hispanic/Latino regardless of their response to the question about race. The Multiracial category was assigned to any student who endorsed more than one race (unless they identified as Hispanic/Latino). Students identified their sexual identity as *gay*, *lesbian*, or *bisexual*, *not sure*, or *heterosexual* and identified their grade as *9*, *10*, *11*, or *12*. We created 14 mutually exclusive intersectional identities by matching all combinations of race/ethnicity and sex.

Health behaviors.—We included selected risk behaviors related to experiences of violence, mental health status, and suicidal behaviors. The measures about experiences of violence inside of school included : (1) *During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school*; (2) *During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property*; (3) *During the past 12 months, how many times were you in a physical fight on school property*; experiences of physical and sexual dating violence, which combined the two following questions: (4a) *During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose*; (4b) *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*; and bullying, which combined the two following questions: (5a) *During the past 12 months, have you ever been bullied on school property*; (5b) *During the past 12 months, have you ever been electronically bullied*. Students indicated their mental health status by answering: (6) *During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities* and suicidal behaviors, including: (7) *During the past 12 months, how many times did you actually attempt suicide*. Responses to each question were collapsed into binary categories where the student was counted as *yes* if they endorsed the behavior with any frequency.

Analysis

We estimated prevalence and used logistic regression models to conduct linear trend analyses for the seven risk behaviors among the aggregate of all students included in the sample and for each intersectional identity that paired race/ethnicity and sex. Models were adjusted for grade and sexual identity. We used SAS-callable SUDAAN version 11.0 to account for weighting and the complex survey design. SUDAAN uses listwise deletion when running models and the sample did not decrease by more than 5% for any health behavior when we assessed for trend; additionally, we conducted a sensitivity analysis and found no differences among the students who did and did not provide a response for grade and sexual identity. Results were interpreted based on significance of $p < 0.05$.

We suppressed prevalence estimates where the denominator for a question resulted in $n < 30$. Data are presented in a separate table for identities where $n < 100$ because the prevalence estimates are imprecise, including American Indian and Alaska Native females and males, and Native Hawaiian or other Pacific Islander females and males. Additionally, we included

Multiracial female and males in the separate table because it was unclear whether the Multiracial category represented a unified racial identity.

Results

The prevalence of students who skipped school because they felt unsafe there increased among all students in aggregate (Table 1). There was an increase in the prevalence of feeling unsafe at school for both sexes and among most race/ethnicities, including American Indian/Alaska Native, Black, Hispanic/Latino and White students, but no trend among Asian and Native Hawaiian/Pacific Islander students (Table 1S). Many intersectional identities had an increase, including American Indian/Alaska Native females and males (Table 2), Black females and males, Hispanic/Latino females and males, and White females and males. Figure 1 facilitates comparisons between intersectional identities (where $n > 100$) for feeling unsafe at school by displaying three key aspects of the data: first, the significance of linear trends; second, the prevalence estimates in 2015 and 2019 stratified by identity; and third, the ranking of prevalence estimates in 2015 from highest to lowest. In this figure, all identities, aside from Asian females and Asian males, had a trend increase. Hispanic males and Black males had the highest prevalence estimates in 2015 and 2019, respectively. White males had a significant increase, but their prevalence estimate in 2019 was lower than the prevalence estimate for the aggregate in 2015, highlighting the heterogeneity in the magnitude of student experiences.

The prevalence of students who were threatened or injured with a weapon at school increased in aggregate. An increase also occurred among female students and White students. Among intersectional identities, White males were the only group that had an increased trend. Notably, in 2015 and 2019 Black males had the highest prevalence and Asian females had the lowest, and both identities had extreme prevalence estimates that did not overlap with any other identity's estimates (Figure 1S).

There was no change for getting into a physical fight at school in aggregate, for either sex, or for any race/ethnicity. Among intersectional identities, White males had an increase in this behavior. Black males had the highest prevalence in 2015 and 2019, and White females and Asian females had the lowest estimates (Figure 2S).

Experiencing dating violence decreased in aggregate with. There was no linear change among female or male students. Dating violence increased among American Indian/Alaska Native students and decreased among White students. Among intersectional identities, there was a decrease among White females decreased. The prevalence of experiencing dating violence was highest among White females in 2015 and Hispanic females in 2019. Hispanic females had a non-significant increase in dating violence, while most other identities had a non-significant decrease (Figure 3S).

There was no change in experiences of bullying in aggregate, when stratified by sex or race/ethnicity, or among any intersectional identity. However, White females had a notably higher prevalence of bullying compared to all other identities (Figure 4S).

There was an increase in the prevalence of persistent feelings of sadness or hopelessness in aggregate. There was increase among female and male students, and among Hispanic/Latino, and White students. Among intersectional identities, there was an increase among Black females, Hispanic/Latino males, Multiracial males, and White males. Notably, Hispanic females had the highest prevalence estimates and their prevalence in 2015 was greater than the prevalence estimates of all other identities in 2019. The 2019 prevalence estimates for Hispanic/Latino males, White males, Black males, and Asian males were lower than the aggregate prevalence estimate in 2015 (Figure 5S).

There was no change in the prevalence of students who attempted suicide in aggregate. There was no change among female or male students. There was a decrease in attempted suicide among Multiracial students and an increase among White students. Among intersectional identities, there was a decrease among Hispanic/Latino males and an increase among White males. The prevalence of attempted suicide was highest among Hispanic females in 2015 and Black females in 2019 and lowest among White males in 2015 and Hispanic males in 2019 (Figure 6S). Although most intersectional identities did not have significant trends, the prevalence estimates of attempted suicide were lower in 2019 than 2015 for Hispanic/Latino females, Asian females, and White females, while other identities had higher prevalence estimates in 2019 compared to 2015.

When grouped by sex, the prevalence of feeling unsafe at school and feeling persistently sad or hopeless increased from 2015 to 2019 among all female students; however, these trends did not hold true when stratified by race/ethnicity and the magnitude of these behaviors greatly varied by race/ethnicity (Figure 2; for males, see Figure 7S). When grouped by race/ethnicity, Black students had an increased linear trend in feeling unsafe at school and feeling persistently sad or hopeless; however, when stratified by sex, only the trend for skipping school was significant for Black females and Black males (Figure 3; for other race/ethnicities, see Figures 8S-10S). Black females and Black males had the same directional changes for all behaviors 2015–2019 (although most were non-significant), but which sex held the highest prevalence estimate varied by behavior.

Discussion

In aggregate, the most common experience was feeling persistently sad or hopeless, and the least common experiences were skipping school due to feeling unsafe and being threatened or injured with a weapon at school. In aggregate, one behavior decreased (experiencing dating violence) and three increased (feeling unsafe at school, threatened or injured with a weapon at school, and feeling persistently sad or hopeless) 2015–2019. No individual intersectional identity experienced all four significant trends.

We demonstrated that prevalence estimates and trends of the overall population or based on a single characteristic of sex or race/ethnicity may not offer the validity of an intersectional analytic approach, which recognizes that adolescents simultaneously hold multiple characteristics that constitute an identity (11, 12). Although skipping school due to feeling unsafe there increased in 2019 from 2015 in aggregate and for almost all identities, the heterogeneity of the magnitude of these experiences for each identity was muted. The

2019 prevalence was 8.5% among all students, but this behavior ranged from 5.2% among White males to 12.2% among Black males. Estimates based on the overall population or single demographic characteristics rather than intersectional identities do not describe the experiences of individuals with identities that have been oppressed by multiple and overlapping power structures (10). For example, three behaviors had a significant linear trend among all females, but each individual female identity experienced unique trends when stratified by race/ethnicity. The aggregate results indicated that one risk behavior decreased over time, but in fact, only White females decreased. It may not be revelatory that the best fitting line is one that averages all student experiences, but one best fitting line in aggregate, or stratified by sex or race/ethnicity does not tell a complete story of student experiences.

Public Health researchers and practitioners need to be thoughtful when assessing and interpreting data using an intersectional approach. The extant literature is rich with guidance on how to utilize intersectionality with fidelity but also flexibility for quantitative analysis (10, 11, 13, 14, 28–30). Because intersectionality brings a new perspective to analyzing surveillance data, it may include new modes of analysis that focus on summarizing thematic findings highlighting oppression rather than focusing on a singular risk behavior (29). For example, White males had the most changes out of any identity with increases in five risk behaviors. Although White males ranked among the lowest prevalence estimates for the behaviors where they increased, it is concerning that five out of seven risk behaviors have changed for the worse. Another perspective to consider is that we examined seven behaviors with three timepoints, yielding 21 total data points. Black males had the greatest number of the highest prevalence estimates for seven of these data points, spanning three risk behaviors. Hispanic females and Black females had five and four of the highest prevalence estimates, respectively, and each identity spanned three risk behaviors.

While surveillance data often does not allow us to identify the mechanism for health behavior, racism is an important factor to consider. Racism, in various forms, and as it intersects with sexism and other social determinants of health (31) may explain why Black students (females and males) and Hispanic females held the highest prevalence estimates across the most risk behaviors and did not experience any improvements in a five-year period. Yet, the intersectional framework illustrates that each identity has a unique experience. Hispanic males were unlike Black females and males and Hispanic females because they did not hold multiple highest prevalence estimates.

Surveillance data are used for action to intervene and promote health, but when looking at data for students overall, or piecemeal by demographic characteristics, we do not create evidence that reflects the experiences of students, but rather abstract categories. If we analyze surveillance data using an intersectional perspective, we can create policies and programs to meet all student needs because they recognize students for the whole of their identities.

School-based interventions that center students who experience oppression but are implemented among all students have universal benefit in reducing risk behaviors and promoting health. An intervention to create a safer and more supportive school environment for LGBTQ students found that the presence of a Gay/Straight alliance significantly reduced

illicit drug use and reports of being threatened or injured with a weapon at school among lesbian, gay, bisexual, and heterosexual students (32). Presence of a Gay/Straight alliance conferred additional significant reductions in risk behavior exclusively among heterosexual students, including reports of feeling unsafe at school, forced sex, physical dating violence, making a suicide plan, attempted suicide, and suicide attempts that required medical treatment. A trauma-informed intervention to create a safer and more supportive school environment by reducing racial/ethnic, social class, and language-based disparities in student achievement found improvements in attendance and ability to learn, as well as reductions in disciplinary incidents and out-of-school suspensions among all students (33). Applying intersectionality to promote adolescent health and health equity dictates that we produce data that recognizes intersectional identities, which enables creating policies and programs to dismantle the systems of oppression that are perpetuated at the community, school, peer, and individual levels to improve health among all adolescents.

Limitations

There were at least four limitations to this analysis. First, the YRBS is nationally representative of adolescents who attend school; however, we limited our analytic sample to students who responded to questions on sex, race, and ethnicity. Second, we controlled for sexual identity in our trend models rather than incorporating it into the intersectional identity because previous studies using YRBS data have focused on the intersections of sexual identity and experiences of violence and suicide risk behaviors (e.g., Johns et al, 2020) while the same focus has not been given to race/ethnicity and sex. Third, we did not center Black women as the anchoring group of our analysis and instead compared each identity to the aggregate of all students. There is an ongoing conversation in the literature about how to best implement intersectionality in population research (14, 30) and the pernicious practice of removing the Black feminist perspective when using intersectionality (35). Fourth, the framing of our analysis may suggest that race/ethnicity and sex are the most important aspect of identity for these behaviors, which may not be true (13). It is important to acknowledge that other intersections may be present that were not evident from these data, underscoring the importance of pursuing additional quantitative and qualitative analyses using an intersectional approach to further understand health disparities in the adolescent population.

Conclusion

An overarching goal of public health surveillance is using data to spur action to prevent adverse health outcomes and promote well-being. Using intersectionality to display prevalence estimates and trends as a complement to traditional surveillance approaches is necessary to achieve the Healthy People 2030 objectives of eliminating health disparities and reducing adolescent experiences of violence, poor mental health, and suicidal risk behavior.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements:

Thank you to Dr. Temeika Fairley, Dr. Ana Penman-Aguilar, and Dr. Greta Kilmer.

References

- [1]. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Violence prevention. Available at: <https://health.gov/healthypeople/objectives-and-data/browse-objectives/violence-prevention>. Accessed May 25 2021.
- [2]. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Reduce suicide attempts by adolescents — MHMD-02. Available at: <https://health.gov/healthypeople/objectives-and-data/browse-objectives/mental-health-and-mental-disorders/reduce-suicide-attempts-adolescents-mhmd-02>. Accessed May 25 2021.
- [3]. U.S. Department of Health and Human Services. Healthy People 2030 Framework. Available at: <https://health.gov/healthypeople/about/healthy-people-2030-framework>. Accessed 30 December 2021.
- [4]. Petrucci K, Davis J, Berman T. Adverse childhood experiences and associated health outcomes: A systematic review and meta-analysis. *Child Abuse & Neglect* 2019;97:104127.
- [5]. Walls NE, Atteberry-Ash B, Kattari SK, et al. Gender identity, sexual orientation, mental health, and bullying as predictors of partner violence in a representative sample of youth. *Journal of Adolescent Health* 2019;64:86–92.
- [6]. Geoffroy M-C, Boivin M, Arseneault L, et al. Associations between peer victimization and suicidal ideation and suicide attempt during adolescence: Results from a prospective population-based birth cohort. *Journal of the American Academy of Child & Adolescent Psychiatry* 2016;55:99–105. [PubMed: 26802776]
- [7]. Choi HJ, Weston R, Temple JR. A three-step latent class analysis to identify how different patterns of teen dating violence and psychosocial factors influence mental health. *Journal of Youth and Adolescence* 2017;46:854–866. [PubMed: 27709405]
- [8]. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance--United States, 2019. *Morbidity and Mortality Weekly Report* 2020;Supplement.
- [9]. Centers for Disease Control and Prevention. Youth Risk Behavior Survey: Data Summary and Trends Report, 2009–2019. Atlanta, GA: Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; 2020.
- [10]. Collins PH. Intersectionality's definitional dilemmas. *Annual Review of Sociology* 2015;41:1–20.
- [11]. Hancock A-M. When multiplication doesn't equal quick addition: Examining intersectionality as a research paradigm. *Perspectives on Politics* 2007;5:63–79.
- [12]. Crenshaw K. Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum* 1989;1989:139–167.
- [13]. Bowleg L. When Black + lesbian + woman = Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex Roles* 2008;59:312–325.
- [14]. Bowleg L. The problem with the phrase women and minorities: Intersectionality—an important theoretical framework for public health. *American Journal of Public Health* 2012;102:1267–1273. [PubMed: 22594719]
- [15]. Phyllis Jones C. Levels of racism: A theoretic framework and a gardener's tale. *American Journal of Public Health* 2000;90:1212–1215. [PubMed: 10936998]
- [16]. Connell RW. *Gender and Power: Society, the Person and Sexual Politics*. Stanford, CA: Stanford University Press, 1987.
- [17]. Lewallen TC, Hunt H, Potts-Datema W, et al. The Whole School, Whole Community, Whole Child Model: A new approach for improving educational attainment and healthy development for students. *Journal of School Health* 2015;85:729–739. [PubMed: 26440815]

- [18]. Slavery Tolley K.. In: Angulo AJ, ed. *Miseducation: A history of ignorance-making in America and abroad*. Baltimore: Johns Hopkins University Press, 2016:13–22.
- [19]. Adams DW. *Education for extinction: American Indians and the boarding school experience, 1875–1928*. Lawrenceville, KS: University Press of Kansas, 1995.
- [20]. *Ferguson Plessy v.*, 163. U.S. 537 (1896).
- [21]. Excluded Kuo J., segregated and forgotten: A historical view of the discrimination of Chinese Americans in public schools. *Asian American Law Journal* 1998;5:181–212.
- [22]. Powers JM. *Forgotten History: Mexican American School Segregation in Arizona from 1900–1951*. *Equity & Excellence in Education* 2008;41:467–481.
- [23]. *Brown v. Board of Education*, 347. U.S. 483 (1954).
- [24]. Frankenberg E, Ee J, Ayscue J, et al. *Harming Our Common Future: America's Segregated Schools 65 Years after Brown*. The Civil Rights Project, Center for Education and Civil Rights: University of California Los Angeles; 2019.
- [25]. Title IX of the Education Amendments of 1972, 20 U.S.C. §1681.
- [26]. Office of the Federal Register National Archives and Records Administration. *Enforcement of Title IX of the Education Amendments of 1972 With Respect to Discrimination Based on Sexual Orientation and Gender Identity in Light of Bostock v. Clayton County*. 86 FR 32637–32640.
- [27]. Underwood JM, Brener N, Thornton J, et al. Overview and Methods for the Youth Risk Behavior Surveillance System — United States, 2019. *MMWR supplements* 2020;69:1–10. [PubMed: 32817611]
- [28]. Penman-Aguilar A, Talih M, Huang D, et al. Measurement of health disparities, health inequities, and social determinants of health to support the advancement of health equity. *Journal of Public Health Management and Practice* 2016;22.
- [29]. Else-Quest NM, Hyde JS. Intersectionality in quantitative psychological research: I. Theoretical and epistemological issues. *Psychology of Women Quarterly* 2016;40:155–170.
- [30]. Agénor M. Future directions for incorporating intersectionality into quantitative population health research. *American Journal of Public Health* 2020;110:803–806. [PubMed: 32298180]
- [31]. Trent M, Dooley DG, Dougé J, et al. The impact of racism on child and adolescent health. *Pediatrics* 2019;144:e20191765.
- [32]. Kaczowski W, Li J, Cooper AC, et al. Examining the relationship between LGBTQ-supportive school health policies and practices and psychosocial health outcomes of lesbian, gay, bisexual, and heterosexual students. *LGBT Health* 2022;9:43–53. [PubMed: 34935516]
- [33]. Dorado JS, Martinez M, McArthur LE, et al. *Healthy Environments and Response to Trauma in Schools (HEARTS): A whole-school, multi-level, prevention and intervention program for creating trauma-informed, safe and supportive schools*. *School Mental Health* 2016;8:163–176.
- [34]. Johns MM, Lowry R, Haderxhanaj LT, et al. Trends in Violence Victimization and Suicide Risk by Sexual Identity Among High School Students - Youth Risk Behavior Survey, United States, 2015–2019. *MMWR supplements* 2020;69:19–27. [PubMed: 32817596]
- [35]. Bowleg L. Evolving intersectionality within public health: From analysis to action. *American Journal of Public Health* 2021;111:88–90. [PubMed: 33326269]

Implications and Contribution summary statement:

Applying intersectionality to compare student experiences by identity, as a complement to the population average, provided in-depth understanding of behavioral trends. Illuminating a more complete story within surveillance data is paramount to inform programming and policy to meet the Healthy People 2030 objectives to promote adolescent health and health equity.

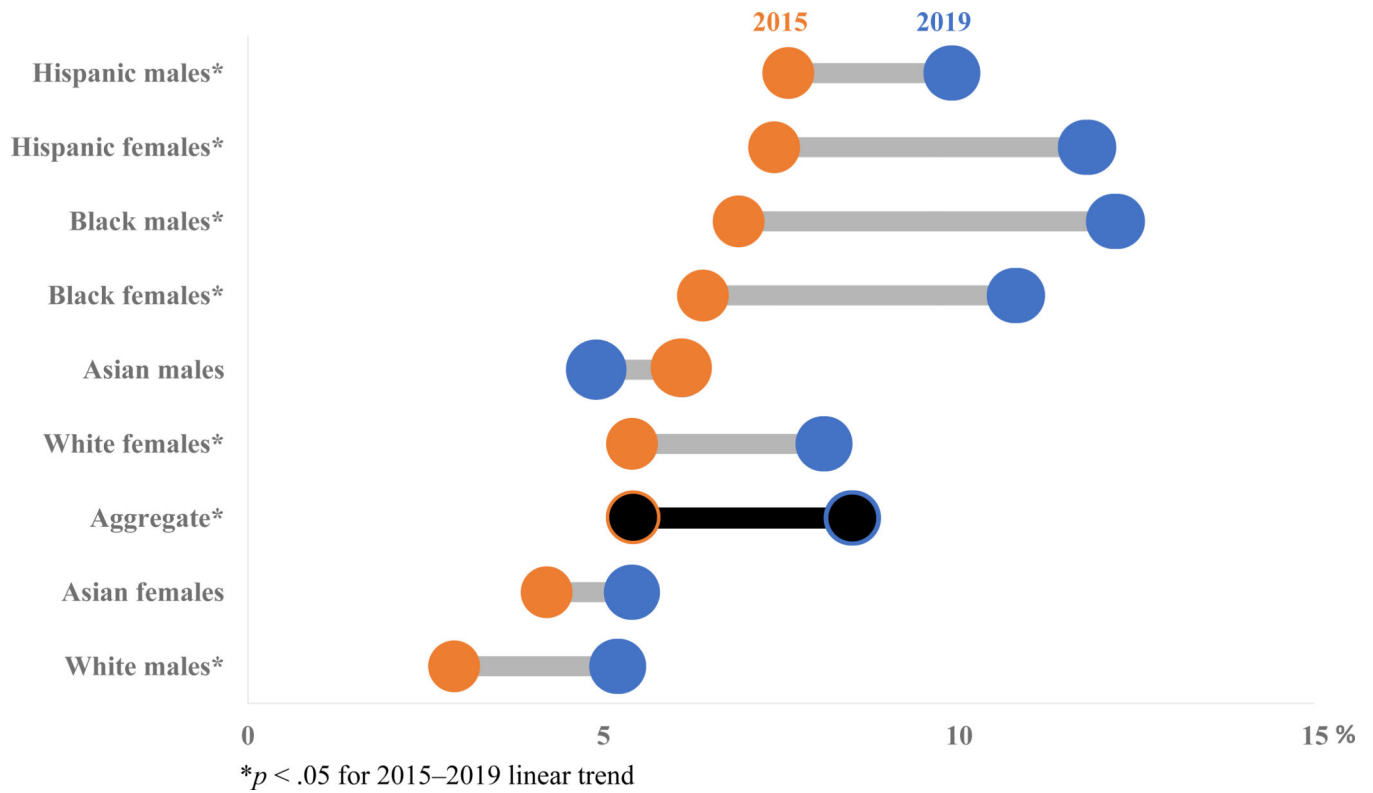


Figure 1. Prevalence and trend of high school students who skipped school because they felt unsafe there or on the way to school in the previous 30 days, national Youth Risk Behavior Survey, 2015–2019

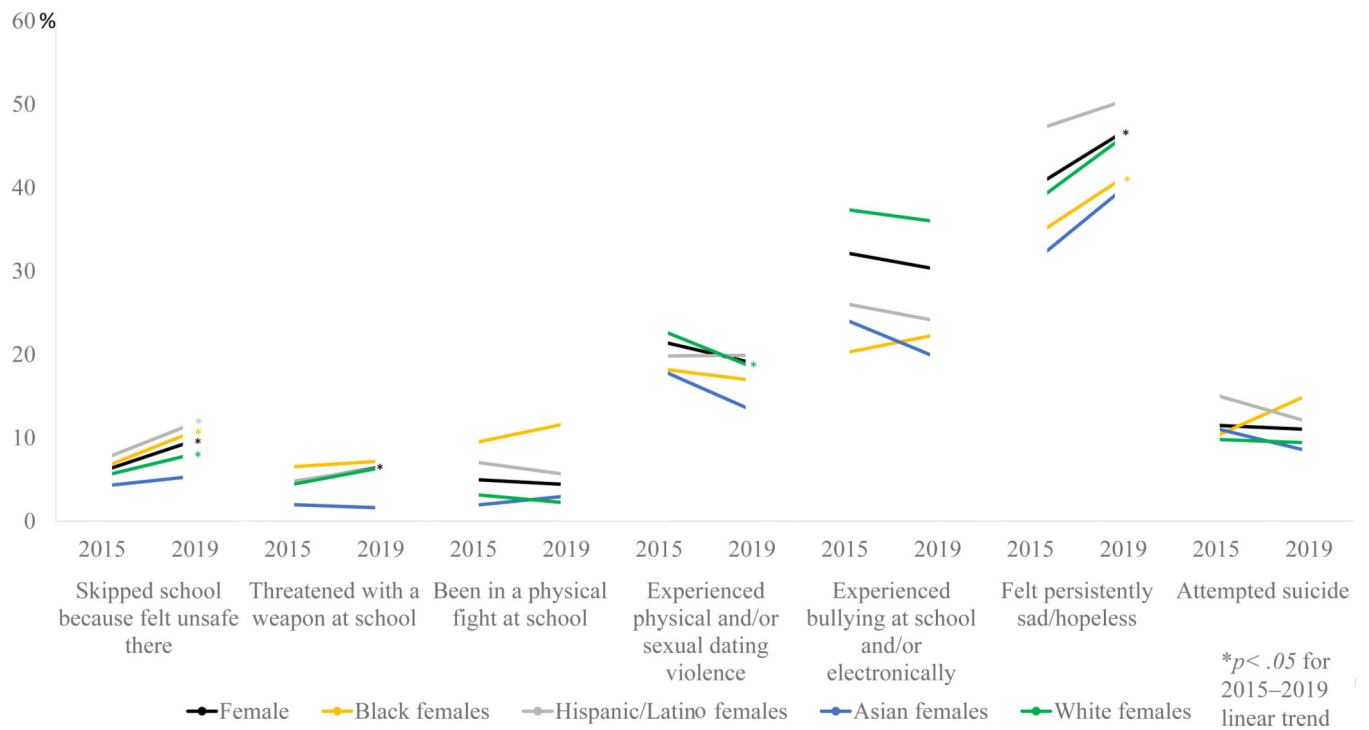


Figure 2. Prevalence and trend of high school students who engaged in risk behavior, among females stratified by race/ethnicity, national Youth Risk Behavior Survey, 2015–2019

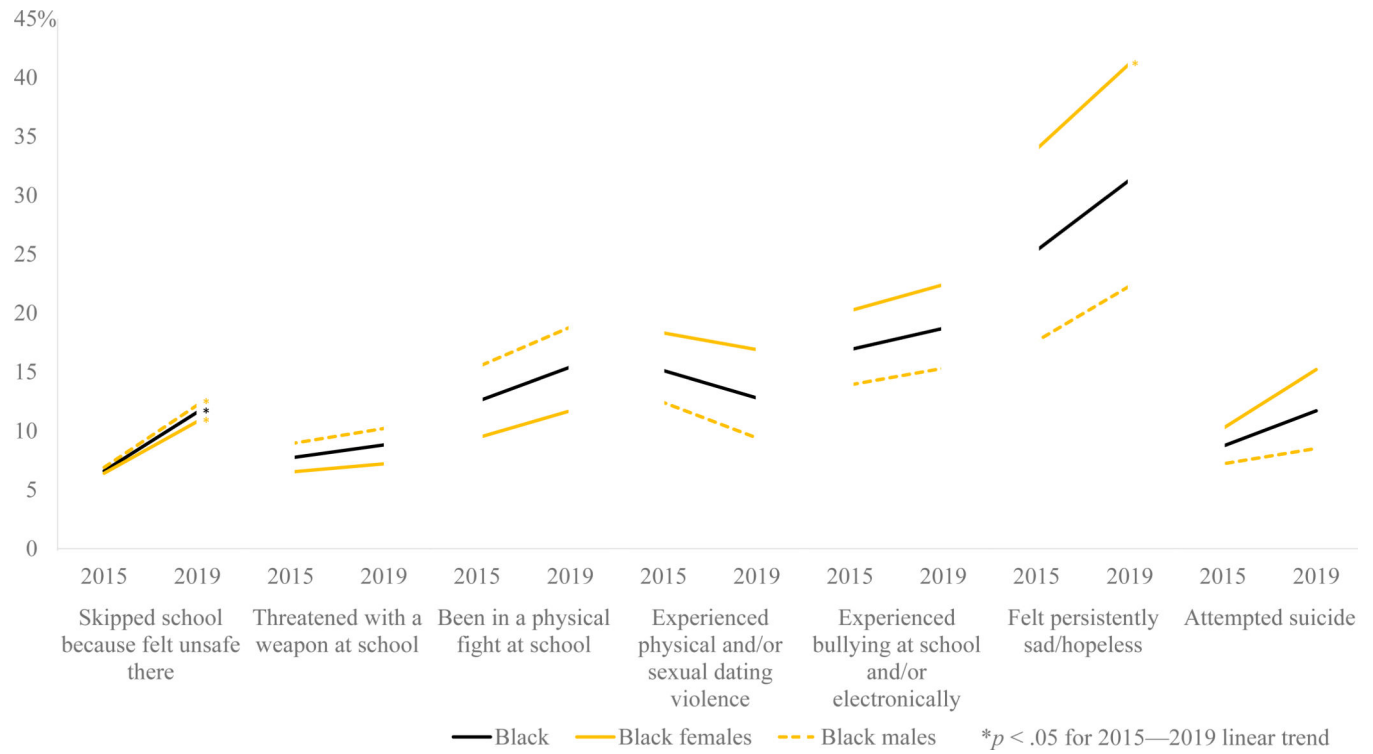


Figure 3. Prevalence and trend of high school students who engaged in risk behavior, among Black students and stratified by sex, national Youth

Prevalence and trends of experiences of violence, mental health status, and suicidal risk behaviors, national Youth Risk Behavior Survey, 2015–2019

	Percentage of students who skipped school because felt unsafe there				Percentage of students who were threatened with a weapon at school				Percentage of students who have been in a physical fight at school				Percentage of students who have experienced physical and/or sexual dating violence				Percentage of students who have experienced bullying at school and/or electronically				Percentage of students who felt persistently sad/hopeless				Percentage of students who have attempted suicide			
	2015	2017	2019		2015	2017	2019		2015	2017	2019		2015	2017	2019		2015	2017	2019		2015	2017	2019		2015	2017	2019	
Aggregate	5.5	6.5	8.5*		5.8	5.8	7.3*		8.0	8.4	8.0		15.6	12.5	14.1*		25.8	24.1	24.7		29.9	31.3	36.7*		8.5	7.2	8.8	
Black females	6.4	9.5 [†]	10.8*		6.5	5.5	7.2		11.7	13.7	11.7		18.3	18.0 [†]	16.9		20.2	21.6	22.4		33.9	40.7	41.2*		10.2	12.5 [†]	15.2 [†]	
Hispanic females	7.4	9.3	11.8*		4.7	3.8	6.4		5.6	7.0	5.6		19.8	16.7	19.9 [†]		26.1	25.8	24.0		46.7 [†]	46.8 [†]	50.4 [†]		15.1 [†]	10.5	11.9	
Asian females	4.2	6.0	5.4		2.0	3.0	1.6		3.0	0.7	3.0		18.2	7.3	13.3		24.2	18.8	19.6		30.8	35.5	39.9		11.1	8.4	8.4	
White females	5.4	5.7	8.1*		4.3	3.6	6.4		2.2	3.1	2.2		23.0 [†]	16.1	18.5*		37.4 [†]	32.0 [†]	35.9 [†]		37.9	38.2	46.1		9.8	7.3	9.4	
Black males	6.9	8.2	12.2* [†]		8.9 [†]	10.0 [†]	10.2 [†]		18.8 [†]	16.9 [†]	18.8 [†]		12.4	8.2	9.4		13.9	15.2	15.3		17.6	17.3	22.3		7.2	6.7	8.5	
Hispanic males	7.6 [†]	9.4	9.9*		8.4	8.3	7.3		10.2	11.6	10.2		11.8	7.2	9.3		16.5	14.9	14.5		24.3	21.2	29.1*		7.6	5.8	5.5*	
Asian males	6.1	6.1	4.9		4.9	5.9	4.7		6.8	6.9	6.8		6.6	13.1	10.0		17.9	16.1	17.1		16.5	26.4	23.4		5.2	2.7	7.1	
White males	2.9	3.9	5.2*		5.4	6.5	7.6*		10.2*	10.1	10.2*		7.8	7.7	8.6		22.3	21.7	22.1		19.2	21.4	25.9*		3.7	4.6	6.4*	

* $P < 0.05$ for 2015–2019 linear trend[†] Highest prevalence estimate for the year

Prevalence and trend of experiences of violence, mental health status, and suicide risk behaviors among select identities, national Youth Risk Behavior Survey, 2015–2019

	Percentage of students who skipped school because felt unsafe there			Percentage of students who were threatened with a weapon at school			Percentage of students who have been in a physical fight at school			Percentage of students who experienced physical and/or sexual dating violence			Percentage of students who experienced bullying at school and/or electronically			Percentage of students who felt persistently sad/hopeless			Percentage of students who attempted suicide		
	2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019
American Indian/Alaska Native females	10.4	4.5	34.9	7.9	7.0	11.9	12.5	5.1	12.8	24.6	37.5	Y	34.3	39.5	37.4	50.2	44.7	63.4	24.5	8.6	13.4
American Indian/Alaska Native males	7.1	10.4	16.7	8.5	17.9	11.2	13.4	10.7	23.8	9.9	9.6	25.4*	20.7	18.3	37.2	25.1	28.7	33.5	9.8	5.5	34.3
Native Hawaiian/Pacific Islander females	10.4		X	9.3		X		16.4	X		19.6	X		26.2	X		33.4	X		14.7	X
Native Hawaiian/Pacific Islander males	6.7	4.0	11.5	20.6	4.2	20.4	18.1	11.5	6.6	9.8	22.6		17.9	19.6	30.0	30.6	20.9	26.6	2.7	2.5	Y
Non-Hispanic Multiracial females	5.8	6.7	13.7*	4.8	6.7	10.6	3.6	6.1	4.5	25.4	22.3	25.3	40.1	35.2	35.0	50.9	51.3	51.3	16.5	15.6	17.8
Non-Hispanic Multiracial males	6.8	5.9	8.1	10.2	9.2	12.2	14.1	12.5	17.6	17.9	12.8	8.8	23.6	23.1	22.9	24.6	26.1	38.8*	14.0	5.3	7.3

Result suppressed because N <30

* Linear change, $p < 0.05$

X trend analysis not conducted because results suppressed

Y trend analysis not conducted because linear model did not converge