

























higher rates of racial, socioeconomic, and sexual harassment (Bucchianeri et al., 2013; Bucchianeri et al., 2016). A more recent study found that increased ethnic diversity in school settings offset peer victimization among higher weight adolescents, underscoring the importance of identifying protective factors, including but not limited to perspective taking, against weight stigma (Lanza et al., 2018). Further exploration of the relationship between high weight-stigma, intersectional harassment, and suicidality is needed.

The findings of high bullying victimization and suicidality amongst female students in this sample is consistent with national trends. Similarly, the mediation of suicidality by bullying is consistent with established knowledge regarding the negative impact of gender-based discrimination—which includes both gender-bias and sexual harassment—on girls’ social-emotional health, body image, and achievement (Leaper & Friedman, 2007; Wichstrøm, 1999). While this study did not examine bullying victimization across intersectional identities, prior studies show that weight and race-based harassment may be even more prevalent than gender-based harassment amongst female adolescents (Bucchianeri et al., 2013). Increases in female death by suicide and narrowing of the gap in suicide deaths between females and males underscore the importance of intervening upon the unique and intersectional types of bullying victimization experienced by female students (Curtin et al., 2016; Ruch et al., 2019; Nabors et al., 2019).

The patterns of bullying victimization and suicidality found in this study are consistent with previous literature and suggest opportunity to further develop interventions to support youth from stigmatized identity groups (Stone et al., 2018, Ivey-Stephenson et al., 2017; Kann et al., 2018; Kalb et al., 2019; Earnshaw et al., 2018). Mixed evidence exists on the positive impact of bullying intervention programs on middle school youth (Bauer & Rivara, 2007; Cissner & Ayoub, 2014; Espelage et al., 2013; Jenson et al., 2013; Gaffney et al., 2021). Evidence suggests that prosocial bystanders can effectively support adolescent bully victims in racially/ethnically diverse rural settings (Evans & Smokowski, 2015). Sources of Strength, a suicide-prevention program developed for rural and tribal communities in North Dakota, has been shown to reduce suicide by improving peer leader adaptive norms regarding suicide and increasing youth-adult connectedness (Wyman et al., 2010). Leveraging peer leaders as prosocial bystanders may be an opportunity to reduce bullying victimization and suicidality amongst North Dakota minoritized identity groups.

Cultural pride promotion has been shown to mitigate negative outcomes from peer victimization in minoritized youth and should be further explored. Identity-specific affinity groups have been used to reduce hopelessness and suicide attempts in youth experiencing stigma (Davis

et al., 2014; Newman, 2005; Bannon et al. 2009). Efforts within Native communities to apply local knowledge to better understand and address peer victimization and suicide and to catalyze community healing hold promise and should be prioritized (Allen et al., 2021; Trout et al., 2018; Matheson et al., 2016). Increased attention to protective factors, such as social support and healthy sleep habits, should be prioritized when developing interventions to address youth suicide (Ersan & Rodriguez, 2021; Gloppen et al., 2018).

Finally, increased attention in recent years has been given to racial discrimination as a form of toxic stress and the importance of trauma-informed services for minoritized youth (Carter, 2007; Dueweke et al., 2019). Broader application of trauma-informed and restorative practices in educational settings hold promise to prevent, intervene, and provide healing for young people experiencing racialized trauma (Kataoka et al., 2018). Community healing, resilience, and wellness will be best achieved when schools, health systems, and community partners collaborate towards addressing childhood adverse childhood experiences and toxic stressors such as stigma-related bullying (Ellis & Dietz, 2017).

### **Limitations**

Although this study documents trends in bullying victimization and suicidality across specific identity groups, data analysis is based on cross-sectional surveys and can only provide an indication of association, not causality. The NDMS-YBRS does not provide a measure for stigma-specific bullying, therefore this study implies stigma-specific bullying whereas actual bullying experiences may differ and/or be multifactorial. Similarly, the analysis implies temporal order of events; however, it is not known when bullying victimization has occurred in relation to suicidality.

AI/AN student identity may have been underappreciated in this analysis as students who identified as Hispanic/Latinx were not evaluated in any other race/ethnicity category and granular racial identity is not provided within the Multiracial category. Statistical analysis did not explore membership in more than one stigmatized group, which may be associated with worse outcomes. Students in North Dakota, as in the rest of the United States, are highly concentrated between and within schools by racial/ethnic group, and this study does not account for how bullying and suicidality differed by school settings (e.g., racial/ethnic homogenous or heterogenous environments). Due the nature of the secondary data set, a school-specific variable was not part of the public use data set; therefore, adjustment for clustering by school was not possible.

The YRBS has additional limitations. All YRBS data are self-reported, and therefore the extent of underreporting or overreporting of behaviors cannot be determined. As the survey is descriptive, it is not intended to explain reasoning behind trends. Studies have shown that any participation in bullying increases the risk for suicide; therefore, this study is further limited in that it did not look at bullying perpetration. Data are not representative of all persons in this age group as they only include youth who attend school. The study sample includes students from both randomly selected and voluntary schools; therefore, results cannot be extrapolated to represent all middle school students from eligible schools but are limited in representing mainly the students from participating schools. The study is further limited in the absence of additional measures such as sexual orientation, gender, and socioeconomic status, which have been shown to mediate the relationship between bullying and suicidality but were not available in the dataset.

## **CONCLUSION**

Higher suicidality amongst minoritized race/ethnicity, very overweight, and female students, mediated in some instances by bullying, suggest that group identity, stigma, and discrimination may influence suicidality in middle school youth in North Dakota. More information is needed on stigma and discrimination, including intersections of identity, as drivers of bullying and suicidality in minoritized youth in nonmetropolitan/rural areas.

## **REFERENCES**

- Allen, J., Rasmus, S. M., Fok, C., Charles, B., Trimble, J., Lee, K., & the Qungasvik Team. (2021). Strengths-based assessment for suicide prevention: Reasons for life as a protective factor from Yup'ik Alaska Native youth suicide. *Assessment*, 28(3), 709-723 <https://doi.org/10.1177/1073191119875789>
- Arango, A., Opperman, K. J., Gipson, P. Y., & King, C. A. (2016). Suicidal ideation and suicide attempts among youth who report bully victimization, bully perpetration and/or low social connectedness. *Journal of Adolescence*, 51, 19-29. <https://doi.org/10.1016/j.adolescence.2016.05.003>
- Bannon, W. M., McKay, M. M., Chacko, A., Rodriguez, J. A., & Cavaleri, M. (2009). Cultural pride reinforcement as a dimension of racial socialization protective of urban African American child anxiety. *Families in Society*, 90(1), 79-86. <https://doi.org/10.1606%2F1044-3894.3848>

- Bauer, N. S., Lozano, P., & Rivara, F. P. (2007). The effectiveness of the Olweus Bullying Prevention Program in public middle schools: A controlled trial. *The Journal of Adolescent Health, 40*(3), 266–274. <https://doi.org/10.1016/j.jadohealth.2006.10.005>
- Bhatta, M. P., Shakya, S., & Jefferis, E. (2014). Association of being bullied in school with suicide ideation and planning among rural middle school adolescents. *Journal of School Health, 84*(11), 731-738. <https://doi.org/10.1111/josh.12205>
- Bowser, J., Larson, J. D., Bellmore, A., Olson, C., & Resnik, F. (2018). Bullying victimization type and feeling unsafe in middle school. *The Journal of School Nursing, 34*(4), 256–262. <https://doi.org/10.1177/1059840518760983>
- Broll, R., Dunlop, C., & Crooks, C. V. (2017). Cyberbullying and internalizing difficulties among Indigenous adolescents in Canada: Beyond the effect of traditional bullying. *Journal of Child & Adolescent Trauma, 11*(1), 71–79. <https://doi.org/10.1007/s40653-017-0163-y>
- Brown, C. S., & Stone, E. A. (2016). Gender stereotypes and discrimination: How sexism impacts development. *Advances in Child Development and Behavior, 50*, 105-133. <https://doi.org/10.1016/bs.acdb.2015.11.001>
- Bucchianeri, M. M., Eisenberg, M. E., & Neumark-Sztainer, D. (2013). Weightism, racism, classism, and sexism: Shared forms of harassment in adolescents. *The Journal of Adolescent Health, 53*(1), 47-53. <https://doi.org/10.1016/j.jadohealth.2013.01.006>
- Bucchianeri, M. M., Gower, A. L., McMorris, B. J., & Eisenberg, M. E. (2016). Youth experiences with multiple types of prejudice-based harassment. *Journal of Adolescence, 51*, 68-75. <https://doi.org/10.1016/j.adolescence.2016.05.012>
- Byrd, C. M., & Carter Andrews, D. J. (2016). Variations in students' perceived reasons for, sources of, and forms of in-school discrimination: A latent class analysis. *Journal of School Psychology, 57*, 1-14. <https://doi.org/10.1016/j.jsp.2016.05.001>
- Caldwell, J. T., Ford, C. L., Wallace, S. P., Wang, M. C., & Takahashi, L. M. (2016). Intersection of living in a rural versus urban area and race/ethnicity in explaining access to health care in the United States. *American Journal of Public Health, 106*(8), 1463-1469. <https://doi.org/10.2105/ajph.2016.303212>
- Carlyle, K. E., & Steinman, K. J. (2007). Demographic differences in the prevalence, co-occurrence, and correlates of adolescent bullying at school. *Journal of School Health, 77*(9), 623-629. <https://doi.org/10.1111/j.1746-1561.2007.00242.x>
- Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist, 35*(1), 13-105. <https://doi.org/10.1177/0011000006292033>

- Chaney, J., Burke, A., & Burkley, E. (2011). Do American Indian mascots = American Indian people? Examining implicit bias towards American Indian people and American Indian mascots. *American Indian and Alaska Native Mental Health Research*, 18(1), 42-62. <https://doi.org/10.5820/aian.1801.2011.42>
- Cissner, A. B., & Ayoub, L. H. (2014). *Building healthy teen relationships: An evaluation of the Fourth R curriculum with middle school students in the Bronx*. New York: Center for Court Innovation.
- Curtin, S. C., Warner, M., & Hedegaard, H. (2016). *Increase in suicide in the United States, 1999–2014* (NCHS data brief, no 241). Hyattsville, MD: National Center for Health Statistics.
- Davis, B., Royne Stafford, M. B., & Pullig, C. (2014). How gay-straight alliance groups mitigate the relationship between gay-bias victimization and adolescent suicide attempts. *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(12), 1271-1278.e1271. <https://doi.org/10.1016/j.jaac.2014.09.010>
- Dueweke, A. R., Hanson, R. F., Wallis, E., Fanguy, E., & Newman, C. (2019). Training pediatric primary care residents in trauma-informed care: A feasibility trial. *Clinical Pediatrics*, 58(11-12), 1239-1249. <https://doi.org/10.1177/0009922819859868>
- Earnshaw, V. A., Reisner, S. L., Menino, D., Poteat, V. P., Bogart, L. M., Barnes, T. N., & Schuster, M. A. (2018). Stigma-based bullying interventions: A systematic review. *Developmental Review*, 48, 178-200. <https://doi.org/10.1016/j.dr.2018.02.001>
- Eaton, D. K., Lowry, R., Brener, N. D., Galuska, D. A., & Crosby, A. E. (2005). Associations of body mass index and perceived weight with suicide ideation and suicide attempts among US high school students. *Archives of Pediatrics & Adolescent Medicine*, 159(6), 513-519. <https://doi.org/10.1001/archpedi.159.6.513>
- Eisenberg, M. E., Gower, A. L., McMorris, B. J., Rider, G. N., & Coleman, E. (2018). Emotional distress, bullying victimization, and protective factors among transgender and gender diverse adolescents in city, suburban, town, and rural locations. *The Journal of Rural Health*, 35(2), 270-281. <https://doi.org/10.1111/jrh.12311>
- Eisenberg, M. E., Neumark-Sztainer, D., & Story, M. (2003). Associations of weight-based teasing and emotional well-being among adolescents. *Archives of Pediatrics & Adolescent Medicine*, 157(8), 733-738. <https://doi.org/10.1001/archpedi.157.8.733>
- Ellis, W. R., & Dietz, W. H. (2017). A new framework for addressing adverse childhood and community experiences: The Building Community Resilience Model. *Academic Pediatrics*, 17(7S), S86–S93. <https://doi.org/10.1016/j.acap.2016.12.011>
- Ersan, O., & Rodriguez, M. C. (2021). A positive youth development perspective on mental distress among American Indian/Alaska Native youth. *American Indian and Alaska Native Mental Health Research*, 28(2), 1–32. <https://doi.org/10.5820/aian.2802.2021.1>



- Espelage, D. L., Low, S., Polanin, J. R., & Brown, E. C. (2013). The impact of a middle school program to reduce aggression, victimization, and sexual violence. *The Journal of Adolescent Health, 53*(2), 180–186. <https://doi.org/10.1016/j.jadohealth.2013.02.021>
- Evans, C. B., & Smokowski, P. R. (2015). Prosocial bystander behavior in bullying dynamics: Assessing the impact of social capital. *Journal of Youth and Adolescence, 44*(12), 2289–2307. <https://doi.org/10.1007/s10964-015-0338-5>
- Gaffney, H., Ttofi, M. M., & Farrington, D. P. (2021). What works in anti-bullying programs? Analysis of effective intervention components. *Journal of School Psychology, 85*, 37–56. <https://doi.org/10.1016/j.jsp.2020.12.002>
- Ghavami, N., Kogachi, K., & Graham, S. (2020). How racial/ethnic diversity in urban schools shapes intergroup relations and well-being: Unpacking intersectionality and multiple identities perspectives. *Frontiers in Psychology, 11*(3133). <https://doi.org/10.3389/fpsyg.2020.503846>
- Gloppen, K., McMorris, B., Gower, A., & Eisenberg, M. (2018). Associations between bullying involvement, protective factors, and mental health among American Indian youth. *American Journal of Orthopsychiatry, 88*(4), 413–421. <https://doi.org/10.1037/ort0000284>
- Graham, L., Brown-Jeffy, S., Aronson, R., & Stephens, C. (2011). Critical race theory as theoretical framework and analysis tool for population health research. *Critical Public Health, 21*(1), 61–93. <https://doi.org/10.1080/09581596.2010.493173>
- Hamm, M. P., Newton, A. S., Chisholm, A., Shulhan, J., Milne, A., Sundar, P., Ennis, H., Scott, S. D., & Hartling, L. (2015). Prevalence and effect of cyberbullying on children and young people: A scoping review of social media studies. *JAMA Pediatrics, 169*(8), 770–777. <https://doi.org/10.1001/jamapediatrics.2015.0944>
- Hautala, D., & Sittner, K. (2019). Longitudinal mechanisms linking perceived racial discrimination to aggressive delinquency among North American Indigenous youth. *Journal of Research in Crime and Delinquency, 56*(5), 694–735. <https://doi.org/10.1177%2F0022427819834331>
- Herne, M. A., Bartholomew, M. L., & Weahkee, R. L. (2014). Suicide mortality among American Indians and Alaska Natives, 1999–2009. *American Journal of Public Health, 104*(Suppl 3), S336–S342. <https://doi.org/10.2105/AJPH.2014.301929>
- Holland, K. M., Vivolo-Kantor, A. M., Logan, J. E., & Leemis, R. W. (2017). Antecedents of suicide among youth aged 11–15: A multistate mixed methods analysis. *Journal of Youth and Adolescence, 46*(7), 1598–1610. <https://doi.org/10.1007/s10964-016-0610-3>
- Holt, M. K., Vivolo-Kantor, A. M., Polanin, J. R., Holland, K. M., DeGue, S., Matjasko, J. L., Wolfe, M., & Reid, G. (2015). Bullying and suicidal ideation and behaviors: A meta-analysis. *Pediatrics, 135*(2), e496–e509. <https://dx.doi.org/10.1542%2Fpeds.2014-1864>

- Hoge, E., Bickham, D., & Cantor, J. (2017). Digital media, anxiety, and depression in children. *Pediatrics*, *140*(Suppl 2), S76–S80. <https://pubmed.ncbi.nlm.nih.gov/29093037/>
- IBM Corp (2013). IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.
- Ivey-Stephenson, A. Z., Crosby, A. E., Jack, S. P. D., Haileyesus, T., & Kresnow-Sedacca, M. J. (2017). suicide trends among and within urbanization levels by sex, race/ethnicity, age group, and mechanism of death - United States, 2001-2015. *MMWR Surveillance Summaries*, *66*(18), 1-16. <https://doi.org/10.15585/mmwr.ss6618a1>
- Jenson, J. M., Brisson, D., Bender, K. A., & Williford, A. P. (2013). Effects of the Youth Matters prevention program on patterns of bullying and victimization in elementary and middle school. *Social Work Research*, *37*(4), 361–372. <https://doi.org/10.1093/swr/svt030>
- Jernigan, V. B., Duran, B., Ahn, D., & Winkleby, M. (2010). Changing patterns in health behaviors and risk factors related to cardiovascular disease among American Indians and Alaska Natives. *American Journal of Public Health*, *100*(4), 677-683. <https://doi.org/10.2105/ajph.2009.164285>
- Kalb, L. G., Stapp, E. K., Ballard, E. D., Holingue, C., Keefer, A., & Riley, A. (2019). Trends in psychiatric emergency department visits among youth and young adults in the US. *Pediatrics*, *143*(4). <https://doi.org/10.1542/peds.2018-2192>
- Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Queen, B., Lowry, R., Chyen, D., Whittle, L., Thornton, J., Lim, C., Bradford, D., Yamakawa, Y., Leon, M., Brener, N., & Ethier, K. A. (2018). Youth Risk Behavior Surveillance - United States, 2017. *MMWR Surveillance Summaries*, *67*(8), 1-114. <https://doi.org/10.15585/mmwr.ss6708a1>
- Kataoka, S. H., Vona, P., Acuna, A., Jaycox, L., Escudero, P., Rojas, C., Ramirez, E., Langley, A., & Stein, B. D. (2018). Applying a trauma informed school systems approach: Examples from school community-academic partnerships. *Ethnicity & Disease*, *28*(Suppl 2), 417-426. <https://doi.org/10.18865/ed.28.S2.417>
- Kiang, L., Witkow, M. R., & Thompson, T. L. (2016). Model minority stereotyping, perceived discrimination, and adjustment among adolescents from Asian American backgrounds. *Journal of Youth and Adolescence*, *45*(7), 1366-1379. <https://doi.org/10.1007/s10964-015-0336-7>
- Lai, T., & Kao, G. (2018). Hit, robbed, and put down (but not bullied): Underreporting of bullying by minority and male students. *Journal of Youth and Adolescence*, *47*(3), 619-635. <https://doi.org/10.1007/s10964-017-0748-7>
- Lanza, H. I., Echols, L., & Graham, S. (2018). A silver lining: The role of ethnic diversity on co-occurring trajectories of weight status and peer victimization across early adolescence. *Journal of Adolescent Health*, *63*(5), 554-560. <https://doi.org/10.1016/j.jadohealth.2018.05.026>

- Lebrun-Harris, L. A., Sherman, L. J., & Miller, B. (2020). State-level prevalence of bullying victimization among children and adolescents, National Survey of Children's Health, 2016-2017. *Public Health Reports*, 135(3), 303–309. <https://doi.org/10.1177/0033354920912713>
- Leeper, C., & Brown, C.S. (2008). Perceived experiences with sexism among adolescent girls. *Child Development*, 79(3), 685-704. <https://doi.org/10.1111/j.1467-8624.2008.01151.x>
- Leeper, C., & Friedman, C. K. (2007). The socialization of gender. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (p. 561–587). The Guilford Press.
- Lear, M. K., Perry, K. M., Stacy, S. E., Canen, E. L., Hime, S. J., & Pepper, C. M. (2020). Differential suicide risk factors in rural middle and high school students. *Psychiatry Research*, 284, 112773. <https://doi.org/10.1016/j.psychres.2020.112773>
- Lee, M. S., Gonzalez, B. D., Small, B. J., & Thompson, J. K. (2019). Internalized weight bias and psychological wellbeing: An exploratory investigation of a preliminary model. *PloS One*, 14(5), e0216324. <https://doi.org/10.1371/journal.pone.0216324>
- Matheson, K., Bombay, A., Haslam, S. A., & Anisman, H. (2016). Indigenous identity transformations: The pivotal role of student-to-student abuse in Indian Residential Schools. *Transcultural Psychiatry*, 53(5), 551-573. <https://doi.org/10.1177/1363461516664471>
- Mittleman, J. (2019). Sexual minority bullying and mental health from early childhood through adolescence. *Journal of Adolescent Health*, 64(2), 172-178. <https://doi.org/10.1016/j.jadohealth.2018.08.020>
- Montoro, J. P., Kilday, J. E., Rivas-Drake, D., Ryan, A. M., & Umaña-Taylor, A. J. (2021). Coping with discrimination from peers and adults: Implications for adolescents' school belonging. *Journal of Youth and Adolescence*, 50(1), 126–143. <https://doi.org/10.1007/s10964-020-01360-5>
- Mueller, A. S., James, W., Abrutyn, S., & Levin, M. L. (2015). Suicide ideation and bullying among US adolescents: Examining the intersections of sexual orientation, gender, and race/ethnicity. *American Journal of Public Health*, 105(5), 980–985. <https://doi.org/10.2105/AJPH.2014.302391>
- Muthén, L. K., & Muthén, B. O. (1998-2017). *Mplus User's Guide* (8th ed.). Muthén & Muthén
- Nabors, L., Odar Stough, C., Garr, K., & Merianos, A. (2019). Predictors of victimization among youth who are overweight in a national sample. *Pediatric Obesity*, 14(7), e12516. <https://doi.org/10.1111/ijpo.12516>
- Newman, D. L. (2005). Ego development and ethnic identity formation in rural American Indian adolescents. *Child Development*, 76(3), 734–746. <https://doi.org/10.1111/j.1467-8624.2005.00874.x>
- North Dakota Census Office. (2017). *North Dakota's Increasing Racial and Ethnic Diversity* (August 2017). Bismarck, ND: North Dakota Department of Commerce.

- North Dakota Department of Public Instruction. (2015). *Middle School Youth Risk Behavioral Survey Results*. North Dakota State Government.
- Pinquart, M. (2017). Systematic review: Bullying involvement of children with and without chronic physical illness and/or physical/sensory disability – A meta-analytic comparison with healthy/nondisabled peers. *Journal of Pediatric Psychology*, 42(3), 245-259. <https://doi.org/10.1093/jpepsy/jsw081>
- Pont, S. J., Puhl, R., Cook, S. R., Slusser, W., & Section on Overweight & Obesity (2017). Stigma experienced by children and adolescents with obesity. *Pediatrics*, 140(6). <https://doi.org/10.1542/peds.2017-3034>
- Puhl, R. M., Himmelstein, M. S., & Pearl, R. L. (2020). Weight stigma as a psychosocial contributor to obesity. *The American Psychologist*, 75(2), 274–289. <https://doi.org/10.1037/amp0000538>
- Rice, E. S., Haynes, E., Royce, P., & Thompson, S. C. (2016). Social media and digital technology use among Indigenous young people in Australia: A literature review. *International Journal for Equity in Health*, 15, 81. <https://doi.org/10.1186/s12939-016-0366-0>
- Rhee, S., Lee, S. Y., & Jung, S. H. (2017). Ethnic differences in bullying victimization and psychological distress: A test of an ecological model. *Journal of Adolescence*, 60, 155-160. <https://doi.org/10.1016/j.adolescence.2017.07.013>
- Rivara, F., & Le Menestrell, S., eds. (2016). *Preventing bullying through science, policy, and practice*. The National Academies Press, Washington, DC. <https://www.nap.edu/catalog/23482/preventing-bullying-through-science-policy-and-practice>
- Rosenthal, L., Earnshaw, V. A., Carroll-Scott, A., Henderson, K. E., Peters, S. M., McCaslin, C., & Ickovics, J. R. (2015). Weight- and race-based bullying: Health associations among urban adolescents. *Journal of Health Psychology*, 20(4), 401-412. <https://doi.org/10.1177/1359105313502567>
- Ruch, D.A., Sheftall, A.H., Schlagbaum, P., Rausch, J., Campo, J.V., & Bridge, J.A. (2019). Trends in suicide among youth aged 10 to 19 years in the United States, 1975 to 2016. *JAMA Network Open*, 2(5), e193886. <https://doi.org/10.1001/jamanetworkopen.2019.3886>
- Russell S. T., Sinclair K. O., Poteat V. P., & Koenig B. W. (2012). Adolescent health and harassment based on discriminatory bias. *American Journal of Public Health*. 102(3), 493-495. <https://doi.org/10.2105/AJPH.2011.300430>
- Sanders-Phillips, K., Settles-Reaves, B., Walker, D., & Brownlow, J. (2009). Social inequality and racial discrimination: Risk factors for health disparities in children of color. *Pediatrics*, 124(Suppl 3), S176–S186. <https://doi.org/10.1542/peds.2009-1100e>

- Seaton, E. K., Neblett, E. W., Jr, Cole, D. J., & Prinstein, M. J. (2013). Perceived discrimination and peer victimization among African American and Latino youth. *Journal of Youth and Adolescence*, 42(3), 342–350. <https://doi.org/10.1007/s10964-012-9848-6>
- Smokowski, P., Buchanan, R. L., & Bacallao, M. L. (2009). Acculturation and adjustment in Latino adolescents: How cultural risk factors and assets influence multiple domains of adolescent mental health. *The Journal of Primary Prevention*, 30(3-4), 371-393. <https://doi.org/10.1007/s10935-009-0179-7>
- Stone, D. M., Simon, T. R., Fowler, K. A., Kegler, S. R., Yuan, K., Holland, K. M., Ivey-Stephenson, A. Z., & Crosby, A. E. (2018). Vital Signs: Trends in state suicide rates - United States, 1999-2016 and circumstances contributing to suicide - 27 states, 2015. *MMWR Morbidity and Mortality Weekly Report*, 67(22), 617-624. <https://doi.org/10.15585/mmwr.mm6722a1>
- Swearer, S. M., & Cary, P. T. (2003). Perceptions and attitudes toward bullying in middle school youth: A developmental examination across the bully/victim continuum. *Journal of Applied School Psychology*, 19(2), 63–79. [https://doi.org/10.1300/J008v19n02\\_05](https://doi.org/10.1300/J008v19n02_05)
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In S. W. W. G. Austin (Ed.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.
- Trent, M., Dooley, D. G., & Douge, J. (2019). The impact of racism on child and adolescent health. *Pediatrics*, 144(2). <https://doi.org/10.1542/peds.2019-1765>
- Trout, L., McEachern, D., Mullany, A., White, L., & Wexler, L. (2018). Decoloniality as a framework for Indigenous youth suicide prevention pedagogy: Promoting community conversations about research to end suicide. *American Journal of Community Psychology*, 62(3-4), 396-405. <https://doi.org/10.1002/ajcp.12293>
- Truth and Reconciliation Commission of Canada. (2012). They came for the children: Canada, Aboriginal peoples, and residential schools, Winnipeg, Canada. <https://publications.gc.ca/site/eng/9.695530/publication.html>
- Wade, R., Jr, Shea, J. A., Rubin, D., & Wood, J. (2014). Adverse childhood experiences of low-income urban youth. *Pediatrics*, 134(1), e13–e20. <https://doi.org/10.1542/peds.2013-2475>
- Walls, M. L., Whitbeck, L., & Armenta, B. (2016). A cautionary tale: Examining the interplay of culturally specific risk and resilience factors in Indigenous communities. *Clinical Psychological Science*, 4(4), 732-743. <https://doi.org/10.1177/2167702616645795>
- Wang, J., Iannotti, R. J., & Luk, J. W. (2010). Bullying victimization among underweight and overweight U.S. youth: Differential associations for boys and girls. *Journal of Adolescent Health*, 47(1), 99-101. <https://doi.org/10.1016/j.jadohealth.2009.12.007>

- Wang, J., Iannotti, R. J., & Nansel, T. R. (2009). School bullying among adolescents in the United States: Physical, verbal, relational, and cyber. *Journal of Adolescent Health, 45*(4), 368-375. <https://doi.org/10.1016/j.jadohealth.2009.03.021>
- Wang, J., Nansel, T. R., & Iannotti, R. J. (2011). Cyber and traditional bullying: Differential association with depression. *Journal of Adolescent Health, 48*(4), 415-417. <https://doi.org/10.1016/j.jadohealth.2010.07.012>
- Warne, D., & Lajimodiere, D. (2015). American Indian health disparities: Psychosocial influences. *Social and Personality Psychology Compass, 9*(10), 567-579. <https://doi.org/10.1111/spc3.12198>
- Wichstrøm, L. (1999). The emergence of gender difference in depressed mood during adolescence: The role of intensified gender socialization. *Developmental Psychology, 35*(1), 232-245. <https://psycnet.apa.org/doi/10.1037/0012-1649.35.1.232>
- Wyman, P. A., Brown, C. H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., Walsh E., Tu, X., & Wang, W. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American Journal of Public Health, 100*(9), 1653-1661. <https://doi.org/10.2105/AJPH.2009.190025>
- Ybarra, M. L., Espelage, D. L., Valido, A., Hong, J. S., & Prescott, T. L. (2019). Perceptions of middle school youth about school bullying. *Journal of Adolescence, 75*, 175-187. <https://doi.org/10.1016/j.adolescence.2018.10.008>

### **ACKNOWLEDGEMENTS**

Sincere thanks to the students who participated in the 2015 North Dakota Middle School-Youth Risk Behavior Survey. Gratitude to the North Dakota Department of Public Instruction and Mark Winkelman (Winkelman Consulting) for support accessing and utilizing the 2015 North Dakota Middle School-Youth Risk Behavior Survey dataset.

### **FUNDING INFORMATION**

This research was made possible in part by the Mayo Clinic Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery.

### **CONFLICT OF INTEREST**

The authors declare that they have no conflicts of interest.

### **AUTHOR INFORMATION**

Sarah J. Atunah-Jay, MD, MPH, is an Assistant Professor of Pediatrics at the Mayo Clinic Alix School of Medicine in Rochester, Minnesota. Susanna N. Basappa, BS, is a MD/PhD student at the Mayo Clinic Alix School of Medicine in Rochester, Minnesota. Kristin Fischer, MPH, is a Program Manager at the Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery at the Mayo Clinic in Rochester, Minnesota. Monica Taylor-Desir, MD, MPH, is a Senior Associate Consultant in the Department of Psychiatry and Psychology at the Mayo Clinic in Rochester, Minnesota. Sean M. Phelan, PhD, MPH, is an Associate Professor in the Division of Health Care Delivery Research at the Mayo Clinic Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery.

APPENDIX

Table A1  
Descriptive statistics and bivariate analyses

	N	%	Ever been bullied on school property	X2	Ever been bullied electronically	X2	Ever seriously thought about killing self	X2	Ever made plan about how would kill self	X2	Ever tried to kill self	X2
	N=7402		n = 3536		n = 2076		n = 1518		n = 1025		n = 555	
<b>Sex</b>												
Female	3714	(50.2)	1944 (52.8)	63.76*	1421 (38.3)	385.6*	1040 (28.1)	257.14*	691 (18.7)	144.68*	393 (10.6)	103.43*
Male	3670	(49.6)	1581 (43.5)		650 (17.7)		474 (13.0)		328 (9.0)		160 (4.4)	
<b>School Year</b>												
7th grade	3730	(50.4)	1749 (47.4)	1.98	1009 (27.1)	3.67	703 (18.9)	12.90*	435 (11.7)	29.99*	265 (7.1)	1.74
8th grade	3672	(49.6)	1787 (49)		1067 (29.1)		815 (22.3)		590 (16.1)		290 (7.9)	
<b>Race/Ethnicity</b>												
AI/AN	563	(7.6)	288 (51.4)	34.17*	180 (32.0)	34.30*	161 (28.6)	62.47*	119 (21.2)	75.63*	89 (15.9)	125.09*
Asian	122	(1.6)	43 (35.2)		23 (19.0)		22 (18.0)		15 (12.3)		10 (8.2)	
Black/AA	227	(3.1)	74 (33.0)		33 (14.6)		40 (17.7)		24 (10.7)		26 (11.5)	
Hispanic/Latinx	568	(7.7)	271 (48.2)		163 (28.8)		156 (27.7)		120 (21.3)		80 (14.2)	
Multiracial	392	(5.3)	203 (51.8)		128 (32.7)		106 (27.0)		74 (19.0)		35 (8.9)	
NH or OPI	29	(0.4)	13 (44.8)		6 (21.4)		6 (20.7)		4 (14.3)		2 (6.9)	
White	5353	(72.3)	2577 (48.6)		1503 (28.1)		1001 (18.7)		646 (12.1)		303 (5.7)	
<b>Weight Status</b>												
Very underweight	152	(2.1)	103 (68.2)	125.4*	65 (43.0)	76.75*	59 (38.8)	280.32*	41 (27.2)	250.76*	30 (19.9)	186.44*
Slightly underweight	1095	(14.8)	533 (49.3)		314 (28.7)		200 (18.3)		141 (13.0)		82 (7.5)	
About the right weight	4145	(55.7)	1786 (43.5)		1024 (24.7)		639 (15.5)		401 (9.7)		202 (4.9)	
Slightly overweight	1747	(23.6)	949 (54.8)		572 (32.8)		503 (28.9)		348 (20.0)		181 (10.4)	
Very overweight	224	(3)	148 (66.7)		91 (40.8)		108 (48.4)		86 (38.6)		54 (24.3)	

\*  $p < 0.01$

AI/AN - American Indian/Alaska Native AA - African American NH - Native Hawai'ian OPI - Other Pacific Islander



**Table A2**  
**Logistic regression**

	Ever been bullied on school property		Ever been bullied electronically		Ever seriously thought about killing self		Ever made plan about how would kill self		Ever tried to kill self	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
<b>Female</b> (vs. male)	1.46 (1.31 - 1.62)	<.001	2.87 (2.54 - 3.24)	<.001	2.70 (2.35 - 3.10)	<.001	2.30 (1.95 - 2.70)	<.001	2.60 (2.08 - 3.24)	<.001
<b>American Indian/Alaska Native</b> (vs. White)	1.14 (.94 - 1.38)	0.18	1.20 (.97 - 1.48)	0.1	1.70 (1.36 - 2.13)	<.001	2.01 (1.57 - 2.58)	<.001	3.20 (2.39 - 4.29)	<.001
<b>Asian, Black/AA, Multiracial, NH or OPI, and Hispanic/Latinx</b> (vs. White)	.87 (.76 - .99)	0.048	.89 (.76 - 1.03)	0.12	1.45 (1.23 - 1.71)	<.001	1.72 (1.43 - 2.07)	<.001	2.44 (1.93 - 3.08)	<.001
<b>Very Overweight</b> (vs. "slightly overweight," "about the right weight," and "slightly underweight")	1.63 (1.46 - 1.82)	<.001	1.50 (1.32 - 1.69)	<.001	2.40 (2.10 - 2.73)	<.001	2.57 (2.20 - 2.99)	<.001	2.48 (2.02 - 3.03)	<.001
<b>8th Grade</b> (vs. 7th grade)	1.13 (1.02 - 1.25)	0.02	1.11 (.99 - 1.25)	0.07	1.23 (1.08 - 1.40)	<0.05	1.45 (1.24 - 1.69)	<.001	1.10 (.90 - 1.35)	0.35

AA - African American NH - Native Hawai'ian OPI - Other Pacific Islander