

### ABSTRACT

- The #MeToo movement recently highlighted the importance of supporting sexual violence victims and survivors.
- Violence is a serious public health concern that impacts millions of people in the United State. Common types of violence include physical, sexual, emotional, financial, and bullying. However, lack of clear comparison between different types of exposure to violence as physical violence, sexual violence, and bullying are often presented together.
- Current study focuses on understanding the relationship between different types of violence, such as physical violence, sexual violence, and bullying, and mental health among youth.
- The Youth Risk Behavior Surveillance System (YRBSS) was used in this secondary data analysis targeting youth population in the United States. Participants include students attending high school from 9th to 12th grade in the United States through self-administered answer sheets.
- Total of 14,765 students participated in YRBSS survey and the gender of participants was similarly represented among male participants (48.2%) and female participants (51.0%).

### INTRODUCTION

- Violence is a serious public health concern that impacts millions of people in the United States.
- Especially, the prevalence of sexual violence is underreported due to fear and embarrassment.
- Child Protective Services (CPS) revealed that approximately 80% of cases involving a parent as a perpetrator of sexual abuse among younger victims of sexual abuse.
- Trauma impacts individuals' life course early on.
- Developing new prevention and intervention programs as well as improving existing could reduce the burden of early trauma.

### PURPOSE OF THE STUDY

- The purpose of the current study aims to explore the relationship between exposure to different types of violence and mental health issues among grade 9 to 12 youth.
- The research hypothesizes that youth who are exposed to sexual violence are at higher risk for mental health issues compared to those who were exposed to other types of violence.

### LITERATURE REVIEW

- Previous research demonstrates the correlation between exposure to violence and the negative impacts among children and youth.
- Sexual violence is often categorized as rape, being made to penetrate someone else, sexual coercion, and unwanted sexual contact.
- On a micro or personal level, individuals experience depression and symptoms of PTSD. Immediate consequences may include shock, fear, and anxiety.
- Sexual violence impacts not only the victims, their families, and the community, but it also brings an economic burden to society at the macro-level.
- Previous research found that the time of abuse discovery was associated with age and gender but not associated with other abuse characteristics.
- Compared to younger children, adolescents experience more negative life events. The distress caused by abuse and the discovery process, in addition to normative stress of the adolescent developmental period, makes adolescent victims more vulnerable than younger children victims.

### METHODS

#### RESEARCH DESIGN AND DATA COLLECTION

- Secondary analysis of data from biennially conducted Youth Risk Behavior Surveillance System (YRBSS) by Centers for Disease Control and Prevention (CDC)'s Division of Adolescent and School Health (DASH).

#### SAMPLE AND SAMPLING METHOD

- A total sample size of 14,756 from YRBSS data in 2017. Participants include student attending high school from 9<sup>th</sup> to 12<sup>th</sup> grade in the United States. YRBSS used a three-stage cluster sample design in order to accurately represent the national students in 9<sup>th</sup> to 12<sup>th</sup> grade across 50 states and the District of Columbia.

#### MEASURES

- Self-reported information regarding participants' demographic information, exposure to physical violence, exposure to sexual violence, bullying, depressive symptoms and suicidality, were included in this study.
- Independent variables were divided into three types of violence; Physical violence, sexual violence, and bullying.
- Four variables assessed physical violence
  - Threatened at school
  - Physical fighting
  - Physical fighting at school
  - Physical dating violence
- Three variables assessed sexual violence
  - Physically forced sexual intercourse
  - Sexual violence
  - Sexual dating violence
- Two variables assessed bullying
  - Bullied on school property
  - Electronically bullied
- Dependent variables were divided into depressive symptoms and suicidality.
  - Two variables assess depressive symptoms
    - Sad or hopelessness
    - Considered suicide
  - Two variables assess suicidality
    - Made a suicide plan
    - Attempted suicide

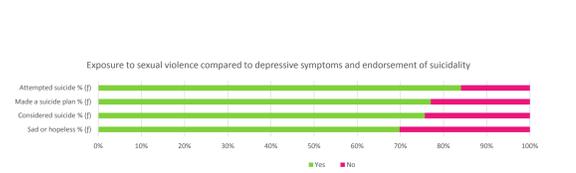
Characteristic	f	%
<b>Gender</b>		
Male	7526	51.0
Female	7112	48.2
Missing	127	0.9
<b>Age in Years</b>		
12 years old or younger	59	0.4
13 years old	22	0.1
14 years old	1922	13.0
15 years old	3586	24.3
16 years old	3688	25.0
17 years old	3611	24.5
18 years old	1796	12.2
Missing	81	0.5
<b>Grade Level</b>		
9 <sup>th</sup> grade	3921	26.6
10 <sup>th</sup> grade	3745	25.2
11 <sup>th</sup> grade	3602	24.4
12 <sup>th</sup> grade	3383	22.9
Ungraded or other grade	30	0.2
Missing	114	0.8
<b>Hispanic</b>		
Yes	3653	24.7
No	10857	73.5
Missing	255	1.7
<b>Sexual Orientation Label</b>		
Heterosexual	12012	81.4
Gay or lesbian	357	2.4
Bisexual	1137	7.7
Not sure	602	4.1
Missing	657	4.4

Variables	f	%
<b>Independent Variables</b>		
<b>Threatened at school</b>		
Yes	934	6.3
No	13768	93.2
<b>Physical fighting</b>		
Yes	2818	19.1
No	9239	62.6
<b>Physical fighting at school</b>		
Yes	1301	8.8
No	13177	89.2
<b>Physical dating violence</b>		
Yes	844	5.7
No or never dated	13241	89.7
<b>Ever been physically forced sexual intercourse</b>		
Yes	1104	7.5
No	13336	90.3
<b>Sexual violence</b>		
Yes	1421	9.6
No	12724	86.2
<b>Sexual dating violence</b>		
Yes	628	4.3
No or never dated	13144	89.0
<b>Bullying at school</b>		
Yes	2665	18.0
No	11941	80.9
<b>Electric bullying</b>		
Yes	2113	14.3
No	12482	84.5
<b>Dependent Variables</b>		
<b>Sad or hopeless</b>		
Yes	4631	31.4
No	9896	67.0
<b>Considered suicide</b>		
Yes	2571	17.4
No	11982	81.2
<b>Made a suicide plan</b>		
Yes	2030	13.7
No	12511	84.7
<b>Attempted suicide</b>		
Yes	837	5.7
No	9849	66.7

### RESULTS

- Multiple chi-square tests were conducted to evaluate the relationship between different types of violence and endorsement of suicidality.
- A significant association was found in physical violence and mental health. Students who have been exposed to physical violence were more likely feel sad or hopeless, consider suicide, made a suicide plan, and attempted suicide.
- A significant association was found in sexual violence and mental health. Students who have been exposed to sexual violence were more likely to feel sad, hopeless, considered suicide, made a suicide plan, and attempted suicide.

	Sad or hopeless % (f)		Considered suicide % (f)		Made a suicide plan % (f)		Attempted suicide % (f)	
	Yes	No	Yes	No	Yes	No	Yes	No
<b>Threatened at school</b>								
Yes	53.8 (476)	46.4 (412)	37.6 (336)	62.4 (558)	32.7 (289)	67.3 (596)	27.7 (170)	72.1 (439)
No	30.4 (4133)	69.6 (9453)	16.3 (2220)	83.7 (11386)	12.7 (1730)	87.3 (11875)	6.6 (664)	93.4 (9820)
<b>Physical fighting</b>								
Yes	41.3 (1154)	58.7 (1642)	34.7 (960)	75.3 (2101)	20.2 (563)	79.8 (2226)	16.0 (361)	85.0 (2038)
No	28.9 (2648)	71.1 (6508)	15.0 (1372)	85.0 (7775)	11.5 (1055)	88.5 (8090)	5.4 (442)	94.6 (7739)
<b>Physical fighting at school</b>								
Yes	41.8 (521)	58.2 (728)	28.2 (357)	71.8 (907)	23.1 (289)	76.9 (964)	19.6 (158)	80.4 (648)
No	30.9 (4022)	69.1 (9013)	16.7 (2173)	83.3 (10870)	13.0 (1691)	87.0 (11350)	6.6 (637)	93.4 (9034)
<b>Physical dating violence</b>								
Yes	62.9 (513)	37.1 (303)	43.3 (354)	56.7 (463)	38.1 (312)	61.9 (507)	32.5 (191)	67.5 (396)
No or did not date	29.9 (3931)	70.1 (9518)	16.1 (2123)	83.9 (11044)	12.4 (1634)	87.6 (11519)	6.2 (802)	93.8 (9058)



VIOLENCE AND ASSOCIATED NEGATIVE MENTAL HEALTH OUTCOMES



### SUMMARY OF FINDINGS

- Students who have been exposed to physical violence are more likely to report negative impacts on their mental health compared to students with no exposure to violence. Being threatened, exposure to physical fighting, and exposure to physical dating violence had significant impact on depressive symptoms and endorsement of suicidality.
- Students who reported exposure to sexual violence were more likely to endorse depressive symptoms and endorse suicidality compared to participants with no history of sexual violence. Students who reported history of physically forced sexual intercourse were likely to feel hopeless and depressed. Also, more likely to endorse suicidality compared to students with no history of rape.
- Findings align with previous research indicating that sexual violence can lead to immediate and long-term psychological effect on one's well-being.
- Current study supports evidence that a high number of participants indicating exposure to sexual violence had a significant risk factor for suicide attempts.

### IMPLICATIONS FOR FUTURE RESEARCH

- Findings from the current study emphasize that future research should further investigate case studies and gather qualitative data on different types of violence in order to develop effective trauma-informed services to youth who have been exposed to violence.
- Follow-up surveys on any other consequences of adverse experiences may allow further understanding of its impact on long-term mental health outcomes and the effectiveness of intervention.
- Assess effectiveness of mental health services offered at school or through a partnership with the school in order to improve safety, school climate, and well-being for students and educators.

### REFERENCES

Agathis, N. T., Payne, C., & Raphael, J. L. (2016). A "Me Too" Movement for Children: Increasing Awareness of Sexual Violence Against Children. *Pediatrics*, 140(2), e2016034.

Alexander, P. C. (1993). The differential effects of abuse characteristics and attachment on the prediction of long term effects of sexual abuse. *Journal of Interpersonal Violence*, 8(3), 346-362.

American Association of University Women. (2016, November 2). *Schools are still underreporting sexual harassment and assault*. <https://www.aauw.org/article/schools-still-underreporting-sexual-harassment-and-assault/>

Anda, R. F., Felsher, V. J., Felitti, V. J., Edwards, V. J., Whitfield, C. L., Dube, S. R., & Williamson, D. F. (2004). Childhood abuse, household dysfunction, and indicators of impaired adult worker performance. *The Permanente Journal*, 8(1), 30.

Baner, N. D., Kiani, S., Sklar, S., Kivlahan, S., Calton, D. K., Hawkins, J., & Flint, K. H. (2013). Methodology of the youth risk behavior surveillance system—2011. *Morbidity and Mortality Weekly Report: Recommendations and Reports*, 62(1), 1-20.

Braga, L., & Joyce, P. R. (1997). What determines post-traumatic stress disorder symptomatology for survivors of childhood sexual abuse? *Child Abuse & Neglect*, 21(6), 375-382.

Buckley, S. C., Lenczowski, S., & Pincus, R. L. (2006). The relationship between child sexual abuse and academic achievement in a sample of adolescent psychiatric inpatients. *Child Abuse & Neglect*, 29(9), 1031-1047.

Buka, S. L., Richters, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence: Prevalence, risks, and consequences. *American Journal of Orthopsychiatry*, 71(3), 298-310.

Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse*, 10(3), 225-246.

Carvalhães, D., Cordeiro, M. R., & Pimenta, J. (2013). The role of traumatic events in the psychological adjustment of survivors of child sexual abuse. *European Journal of Developmental Psychology*, 9(6), 645-680.

Celoni, M., Hazard, A., Webb, C., & McCall, C. (1995). Treatment of traumatic events among sexually abused girls and their mothers: An evaluation study. *Journal of abnormal child psychology*, 24(1), 1-17.

Chen, F. C., Lin, C. C., Hsu, W. T., & Huang, T. F. (2013). Relationships among cyberbullying, school bullying, and mental health in Taiwanese adolescents. *Journal of school health*, 83(6), 454-462.

Centers for Disease Control and Prevention. (2016). *About the CDC-Kaiser ACE study*. Centers for Disease Control and Prevention, 8.

Centers for Disease Control and Prevention. (2019). *Adolescent and school health*. Retrieved from <https://www.cdc.gov/healthyyouth/>

Centers for Disease Control and Prevention. (2019). *Sexual violence*. <https://www.cdc.gov/violenceprevention/sexualviolence/>

Coffey, P., Lutenberger, H., Henning, K., Turner, T., & Bennett, B. T. (1996). Mediators of the long-term impact of child sexual abuse: Perceived stigma, betrayal, powerlessness, and self-blame. *Child Abuse & Neglect*, 20(3), 447-455.

Coppen, C., Bennett, S., Hooper, R., Dickinson, P. (2003). Association between bullying and mental health status in New Zealand adolescents. *International Journal of Mental Health Promotion*, 11(1), 16-22.

Curtis, S. E., & Nolen-Hoeksema, S. (1991). Accounting for sex differences in depression through female victimization: Childhood sexual abuse. *Sex roles*, 24(7-8), 425-438.

Davis, M. K., & Seligson, C. A. (2000). Child sexual abuse prevention programs: A meta-analysis. *Journal of abnormal child psychology*, 29(2), 237-265.

Dillillo, D. (2001). Interpersonal functioning among women reporting a history of childhood sexual abuse: Empirical findings and methodological issues. *Clinical psychology review*, 21(4), 553-576.

Dillillo, D., & Aron, P. J. (1999). Perceptions of couple-functioning among female survivors of child sexual abuse. *Journal of Child Sexual Abuse*, 7(4), 59-76.

Faller, K. C. (1989). Characteristics of a clinical sample of sexually abused children: How boy and girl victims differ. *Child Abuse & Neglect*, 13, 281-291.

Fang, X., Brown, D. S., Flaxveck, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse & Neglect*, 36(2), 156-165.

Ferreira, C., Coates, D. L., & Taha, L. S. (2001). Ethnic status, stigmatization, support, and symptom development following sexual abuse. *Journal of Interpersonal Violence*, 16(12), 1307-1328.

Ferriter, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, 55(4), 530-541.

Flannery, D. J., Singer, M. I., & Wetzler, K. M. (2001). Violence exposure, psychological trauma, and suicide risk in a community sample of dangerously violent adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(4), 435-442.

French, A. H., Higgins, M. L., & Mendenhall, D. A. (2015). Sexual coercion control and psychosocial correlates among diverse males. *Psychology of Men & Masculinity*, 16(1), 42.

Foyan, M. M., Fryd, J. J., & DePina, A. P. (2009). Child sexual abuse: Betrayal and disclosure. *Child Abuse & Neglect*, 33(4), 209-217.

Gottman, A., Aron, B., & Wenzel, W. (2006). Sexual violence, psychological trauma, and suicide risk in a community sample of dangerously violent adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(8), 929-943.

Girls for Gender Equity. (2018, August 17). *See how*. Retrieved from <https://www.girlsforequity.org/>

Glassford, G. L., Parker, G. B., Mitchell, P. B., Maugh, G. S., Wilhelm, K., & Austin, M. P. (2004). Implications of childhood trauma for depressed women: An analysis of pathways from childhood sexual abuse to deliberate self-harm and reconviction. *Journal of Psychology*, 148(1), 147-162.

Hunter, S. V. (2011). Disclosure of child sexual abuse as a life-long process: Implications for health professionals. *Australian and New Zealand Journal of Family Therapy*, 32(2), 159-172.

Ferriter, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, 55(4), 530-541.

Itani, H., Maimon, E., Brodsky, N. L., & Gurevitz, J. (2001). Exposure to violence: Psychological and academic correlates in child witnesses. *Archives of pediatrics & adolescent medicine*, 155(12), 1351-1356.

Iwaniec, A., Gidycz, N. A., Coble, T. N., & Cullen, D. (2000). Mental health services and sexual abuse: The need for staff training. *Journal of Interpersonal Violence*, 15(1), 33-50.

Ramstein-McKee, D., & Hurlley, J. (2001). Interpersonal and family functioning of female survivors of childhood sexual abuse. *Clinical Psychology Review*, 21(3), 471-490.

Ignatow, J. F., Lindhorst, A. B., Waldman, J. L., & Lippman, S. B. (2015). The long term effects of being bullied or a bully in adolescence on externalizing and internalizing mental health problems in adulthood: Child and adolescent psychiatry and mental health. 9(1), 42.

Sims, T. E., Casey, M. P., & Coury-Doolittle, P. (2012). Mediators of the relation between childhood sexual abuse and women's self-risk behavior: A comparison of two theoretical frameworks. *Archives of Sexual Behavior*, 41(6), 1363-1372.

Levens, S. T., Capolupo, W. E., Costello, J. J., & Walker, D. (2015). Adult mental health consequences of peer bullying and maltreatment in childhood: two cohorts in two countries. *The Lancet Psychiatry*, 2(6), 544-551.

Maryland Coalition Against Sexual Assault. (n.d.). *Sexual assault and its effects*. <https://mcaas.org/sites/default/files/sexual-assault-and-its-effects>

Mazza, A. J., & Lyles, S. J. (1998). The development of a measure of correlates of child sexual abuse: the Traumatic Sexualization Survey. *Journal of Interpersonal Violence*, 13(12), 1037-1059.

National Center for Traumatic Stress Management. (2011). *2011-2012*. Retrieved from <https://www.ptsd.va.gov/publications/traumatic-stress-and-its-effects/>

National Child Traumatic Stress Network. (2004). *Teen sexual assault: Information for teens*. [https://www.paid.org/sites/default/files/pdf/fact\\_sheets/teensexualassault\\_teen.pdf](https://www.paid.org/sites/default/files/pdf/fact_sheets/teensexualassault_teen.pdf)

National Sexual Violence Resource Center. (n.d.). *Sexual assault*. <https://www.nsvrc.org/about-sexual-assault>

Rehavi, S., & Gidycz, M. (2012). Violence exposure and the development of school-related functioning: Mental health, neurocognition, and learning. *Aggression and Violent Behavior*, 17(1), 89-98.

Poole-McMurray, A., Garcia-Linares, M. L., Coble, T. N., & Browne, A. (2004). The impact of physical, psychological, and sexual trauma on partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women's Health*, 15(5), 599-611.

Road, J., Anderson, K., Casper, C., & Thomas, D. B. (2006). Mental health services and sexual abuse: The need for staff training. *Journal of Interpersonal Violence*, 21(1), 33-50.

Ramstein-McKee, D., & Hurlley, J. (2001). Interpersonal and family functioning of female survivors of childhood sexual abuse. *Clinical Psychology Review*, 21(3), 471-490.

Singer, T. E., Casey, M. P., & Coury-Doolittle, P. (2012). Mediators of the relation between childhood sexual abuse and women's self-risk behavior: A comparison of two theoretical frameworks. *Archives of Sexual Behavior*, 41(6), 1363-1372.

Sims, T. E., Casey, M. P., & Coury-Doolittle, P. (2012). Mediators of the relation between childhood sexual abuse and women's self-risk behavior: A comparison of two theoretical frameworks. *Archives of Sexual Behavior*, 41(6), 1363-1372.

Singer, T. E., Casey, M. P., & Coury-Doolittle, P. (2012). Mediators of the relation between childhood sexual abuse and women's self-risk behavior: A comparison of two theoretical frameworks. *Archives of Sexual Behavior*, 41(6), 1363-1372.

Snyder, H. N. (2000). Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics (NCJ 182906). Retrieved from the US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. <https://nces.ed.gov/ipeds/data/ncespubs/pdf/ncj182906.pdf>

Springer, K. W., Sheehan, J., & Kuo, D. B. (2003). The long term health outcomes of childhood sexual abuse. *Journal of general internal medicine*, 18(10), 864-870.

Stinson, S. E. (2007). Relationship to perpetrator, disclosure, social reactions, and PTSD symptoms in child sexual abuse survivors. *Journal of child sexual abuse*, 16(1), 19-36.

U.S. Congress. (2015, February 3). *S. 355 - 114th Congress (2015-2016): Teach safe relationships act of 2015*. <https://www.congress.gov/bills/114th-congress/355/text>

Van der Horst, M. (2009). Traumatic dynamics as fundamental constructs in sexual trauma intervention: beyond Freudian and Brown. *Child Abuse Research in South Africa*, 10(2), 21-40.

Walsh, K., Messman-Moore, T., Zinzmeister, H., Chandley, B. B., DeBarth, K. A., & Walker, D. P. (2011). Perceived sexual control, sex-related choice expectancies and behavior predict substance-related sexual victimization. *Child Abuse & Neglect*, 35(3), 333-339.

Walters, J. (2018). *High Impact Hazards*. Women Law, J., 102, 22.

Wang, N. P., Riss, M. P., & Stone, M. (2006). The psychological consequences of sexual trauma. Retrieved September, 27, 2007.