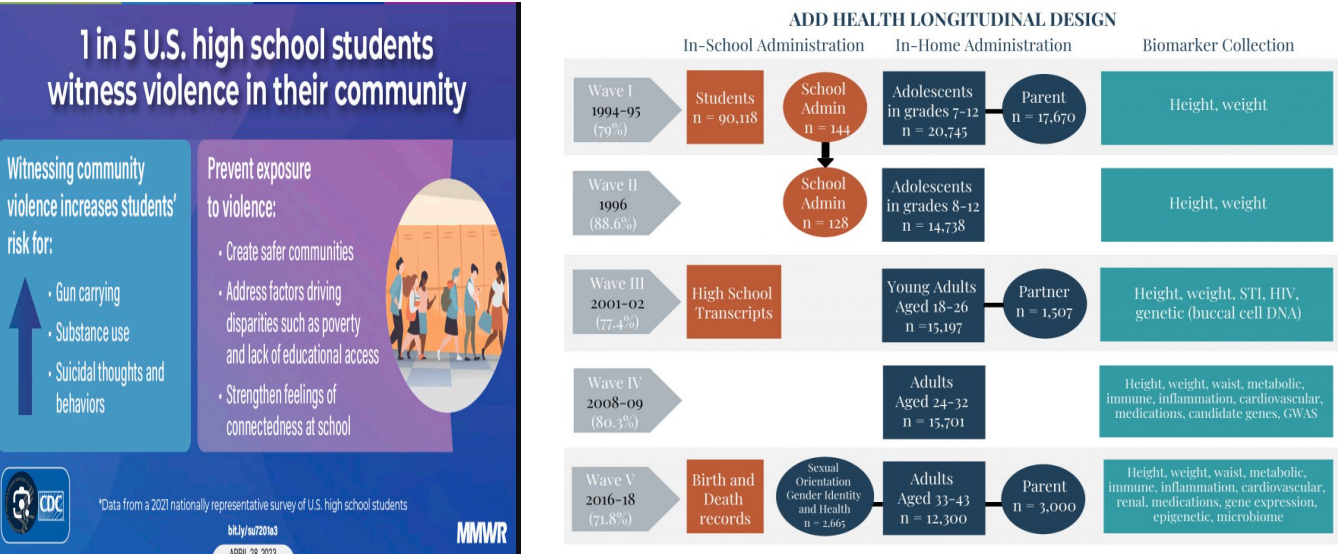


Early Life Violent Victimization and Dental Care Use from Adolescence through Adulthood

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Introduction

Early-life experiences also shape long-term health behaviors, yet the impact of violent victimization on dental care use remains understudied. This research explores how exposure to violence during adolescence influences dental care utilization patterns into adulthood. Using nationally representative data from the Add Health study, we identified distinct trajectories of dental care use and found that individuals who experienced multiple instances of violent victimization were significantly more likely to follow irregular or declining dental care patterns.



Abstract

Objective: Investigate the long-term impact of early-life victimization on dental care utilization patterns from adolescence through middle adulthood (ages 11-43).

Methods: Distinct patterns of dental care were identified from Waves I through V of the National Longitudinal Study of Adolescent to Adult Health (Add Health) using group-based trajectory modeling (GBTM).

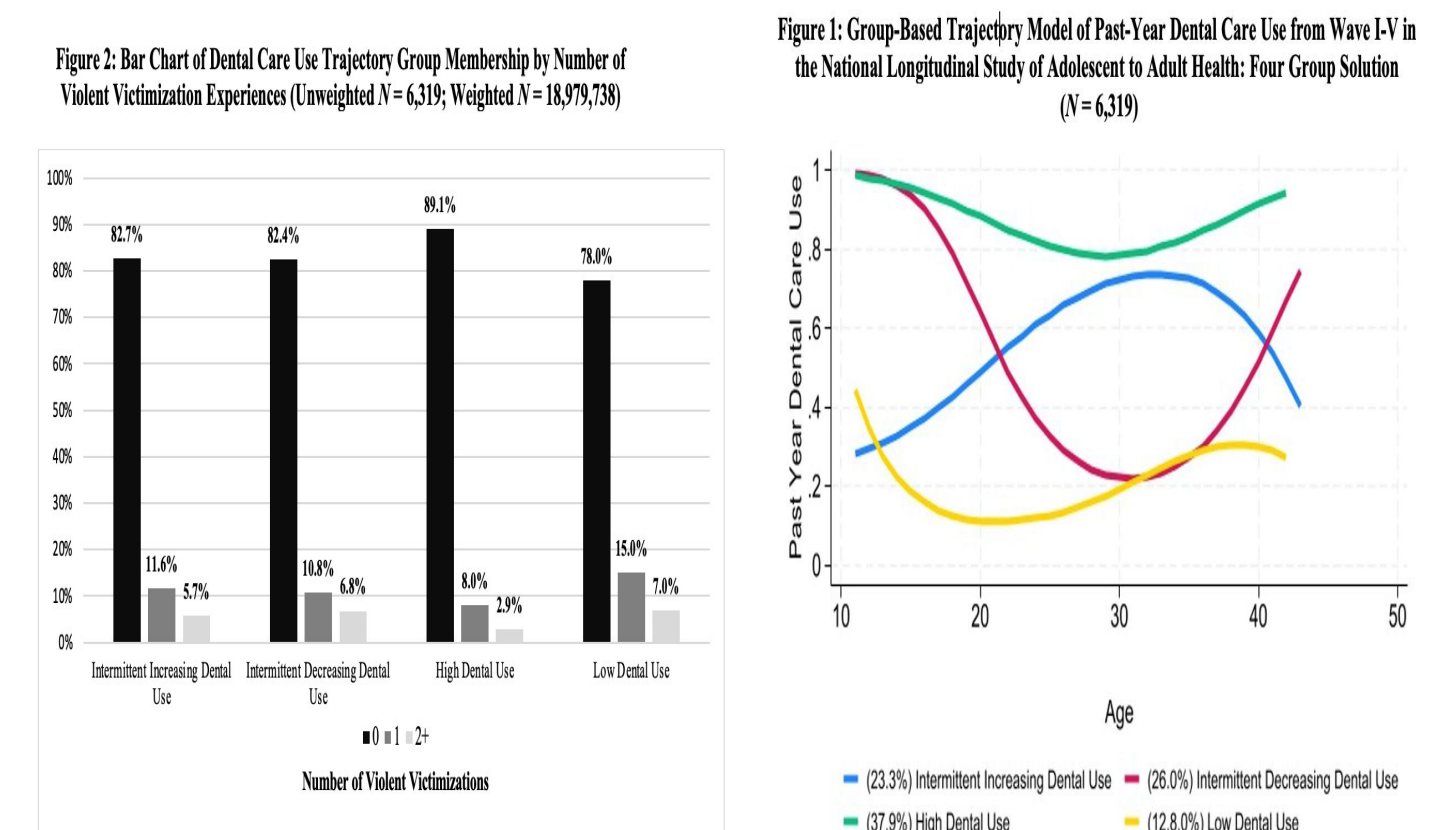
Results: Four distinct dental care utilization trajectories emerged: High Dental Care Use (37.9%), Intermittent Decreasing Dental Care Use (26.0%), Intermittent Increasing Dental Care Use (23.3%), and Low Dental Care Use (12.8%). Those who did experience multiple instances of violent victimization had elevated relative risk of intermittent decreasing and intermittent increasing trajectories compared to those with consistently high dental care use.

Conclusion: Early-life violent victimization serves as a critical risk factor for irregular and inconsistent dental care utilization over the life course. The cumulative effects of trauma may shape long-term health behaviors, reinforcing disparities in access to and engagement with oral healthcare services. By using trauma-informed care approaches and targeted interventions these affects can be mitigated.

Materials and Methods

Data was drawn from Waves I through V of the National Longitudinal Study of Adolescent to Adult Health (Add Health).

Group-based trajectory modeling (GBTM) was used to identify distinct patterns of dental care utilization over five waves, spanning more than three decades. Multinomial logistic regression models assessed the association between self-reported violent victimization experiences at Wave I and trajectory group membership, adjusting for key demographic, socioeconomic, and health-related covariates to isolate the independent effect of victimization on dental care patterns.



Conclusion

Early-life violent victimization serves as a critical risk factor for irregular and inconsistent dental care utilization over the life course. The cumulative effects of trauma may shape long-term health behaviors, reinforcing disparities in access to and engagement with oral healthcare services.

While limitations do exist in this study for example: multiple-year gaps, possible recall and social desirability bias, and the generalization of forms of victimization. These findings underscore the long-term consequences of early trauma on healthcare engagement and highlight the need for trauma-informed approaches to improve and targeted interventions aimed at mitigating these effects could help improve dental care access and promote long-term oral health equity.

Results

Table 1: Summary Statistics of Analytic Sample from National Longitudinal Study of Adolescent to Adult Health (Unweighted N = 6,319; Weighted N = 18,979,738)

Variables	Weighted %/Mean [SD]	Unweighted Frequency
<i>Violent Victimization</i>		
0-No Victimization	83.4%	5,376
1- Victimization	10.9%	641
2+ Victimizations	5.7%	302
<i>Respondents Sex</i>		
Female	50.7%	3,748
Male	49.3%	2,571
<i>Respondent's Race/Ethnicity</i>		
Non-Hispanic White	70%	3,970
Non-Hispanic Black	11.3%	839
Hispanic	13.8%	1,062
Non-Hispanic Other	4.9%	448
<i>Born in the United States</i>		
No	5.41%	386
Yes	94.6%	5,933
<i>Social Origins Score</i>		
<i>Self-Rated Health</i>		
Poor/Fair	6.7%	401
Good/Very Good/Excellent	93.3%	5,918
<i>Depressive Symptoms</i>		
<i>Unmet Health Care Needs</i>		
No	81.4%	5,131
Yes	18.6%	1,178
<i>Violent Offending</i>		
No	72%	4,703
Yes	28%	1,616
<i>Alcohol Consumption</i>		
No	53.2%	3,557
Yes	46.8%	2,762
<i>Smoked Marijuana</i>		
No	89.6%	5,725
Yes	10.4%	594

References

- Bahanan, L., & Ayoub, S. (2023). The association between adverse childhood experiences and oral health: A systematic review. *Journal of public health dentistry*, 83(2), 169–176. <https://doi.org/10.1111/jphd.12564>
- Harper CR, Li J, Sheats K, et al. Witnessing Community Violence, Gun Carrying, and Associations with Substance Use and Suicide Risk Among High School Students — Youth Risk Behavior Survey, United States, 2021. *MMWR Suppl* 2023;72(Suppl-1):22–28. DOI: <http://dx.doi.org/10.15585/mmwr.su7201a3>.
- The National Longitudinal Study of Adolescent to Adult Health Study design. Add Health. Retrieved from <https://addhealth.cpc.unc.edu/documentation/study-design/>
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