

Correlation Between LGBTQ Individuals and Adverse Childhood Experiences (ACEs)

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## Introduction:

The correlation between LGBTQ+ (lesbian, gay, bisexual, transgender, and queer) identities and adverse childhood experiences (ACEs) represents an area of research in understanding the challenges faced by sexual and gender minorities. Adverse childhood experiences are the various forms of abuse, neglect, and household dysfunction that have lasting impacts on an individual's mental and physical health. These experiences can lead to a higher risk of developing mental health disorders, engaging in substance use, and encountering other health-related issues later in life.

LGBTQ+ individuals often face the burden of their childhood and stress relating to their sexual orientation or gender identity. They also experience discrimination, stigma, and family rejection. Research shows that LGBTQ+ individuals report higher rates of ACEs compared to heterosexuals and cisgender individuals.

Understanding how ACEs affect the LGBTQ+ community is extremely important for many reasons. It acknowledges and addresses the issues of how mental and physical health harm the people in this community. It also informs people about what is happening and how they can help. It brings attention to how important it is to support the community, reducing the impact of ACEs.

The Behavioral Risk Factor Surveillance System (BRFSS) is a survey system that collects data on health-related risk behaviors, chronic health conditions, and the use of preventive services among U.S. adults. It was established by the Centers for Disease Control and Prevention (CDC) in 1984. BRFSS is the world's largest continuously conducted health survey system, with data collected monthly from over 400,000 adult participants annually. This data set is valuable for research on adverse childhood experiences (ACEs) among LGBTQ individuals

due to its extensive coverage and inclusion of modules specifically designed to assess ACEs and sexual orientation. The survey includes questions on health topics, physical and mental health, healthcare access, and substance use. Importantly, the ACEs module in the BRFSS collects detailed information on participants' experiences of abuse, neglect, and household dysfunction during childhood.

For studies focusing on the correlation between LGBTQ identities and ACEs, the BRFSS provides critical insights by allowing researchers to analyze the prevalence and impact of ACEs across different sexual orientations and gender identities. The large sample size and high response rate enhance the reliability and generalizability of findings derived from this data set. Additionally, the public availability of BRFSS data facilitates transparency and replication of research, supporting the development of evidence-based interventions and policies aimed at addressing the unique challenges faced by LGBTQ individuals.

## Literature Review:

The first study investigated the disparities in ACEs among sexual minorities and heterosexual adults using data from a multistate probability sample. The methodology used by this author was logistic regression analysis on ACEs, using data from the Behavioral Risk Factor Surveillance System, also known as BRFSS (Andersen and Blosnich (2013). This study's findings were that LGBTQ+ individuals have higher odds of experiencing ACEs, like physical abuse, sexual abuse, and household dysfunction, compared to heterosexual individuals. Unfortunately, some of the challenges faced by this study were needing a larger sample size and more details on the data. More information on the type of ACE these individuals face can better explain the odds and results shown.

The second study explores the effects of victimization on mental health among LGBTQ adolescents and young adults. The researchers used longitudinal data and employed a structural equation modeling to assess the relationships between victimization, mental health outcomes, and substance use (Mustanski, Andrews, and Puckett 2016). The study found that LGBTQ youth experience multiple forms of victimization, including ACEs. Individuals were at higher risk for mental health disorders and substance use. The authors noted how there were difficulties in disentangling the effects of specific types of ACEs from general victimization experiences.

The third study examines the impact of family acceptance and rejection on the health outcomes of LGBTQ young adults. The methodology used was in-depth interviews and surveys, the researchers analyzed the relationship between family reactions to sexual orientation or gender identity disclosure and various health outcomes (Ryan et al. 2009). The findings of this study were high levels of family rejection during adolescence and association with increased ACEs and negative mental health outcomes, including higher rates of depression and suicidality. The

challenge this study faced was remembering the importance of longitudinal data so we could fully capture the long-term effects of family rejection.

The fourth study investigated the prevalence of trauma and its association with PTSD among sexual minority adults. Researchers used survey data and logistic regression analysis. The study also examines the impact of cumulative trauma, including ACEs, on PTSD rates (Roberts et al. 2010). This study showed how LGBTQ individuals reported higher levels of trauma exposure and were more likely to develop PTSD compared to their heterosexual counterparts. The challenge faced was realizing how there is not enough trauma-informed care tailored specifically to the needs of LGBTQ populations.

This fifth study utilizes a cross-sectional survey to look into self-identifying LGBTQ+ and adverse childhood experiences. They found that those who were gender non-conforming, pansexual, and transgender who identified as American-Indian, Latinx, and rural youth had significantly high adverse childhood experiences when compared to those who lived in Canada, lived with a parent, or had highly educated parents had fewer. The future goal of this study is to provide data that would aid in the effectiveness and creation of clinical interventions. Some interesting findings are the correlation between already having one ACE and making one more likely to have another (Craig, Austin, and Levenson 2020).

This sixth study used a cross-sectional design with a focus on sexual and gender minorities and their risk of adverse childhood experiences and substance misuse. Part of the methodology was to look at studies in different research journals and sources. These were then compiled into twenty reports to be reviewed. The matrix method was used to analyze and sort the data allowing researchers to look into substance use frequency, quantity, problems, and disorders (Dowling, Grisby, and Ziomek 2023). The study found that additional adverse childhood

experiences were connected to increased odds of cigarette use and those who were sexual and gender minorities had a higher prevalence of cigarette use over the past 30 days than their non-sexual gender minority peers. This meta-review lists the many findings of these different articles and compiles the research.

#### Conclusion:

Considering these results together, we can assume that adverse childhood experiences have some predictive power for smoking behavior. However, different childhood experiences may have different degrees of influence on an individual's smoking behavior, and not all ACE factors have a significant effect on smoking behavior, which requires a comprehensive consideration of an individual's background characteristics and other possible influencing factors. The relationship between ECIGNOW2 (e-cigarette use) and ACE (Adverse Childhood Experiences) was assessed based on the results of logistic regression modeling. The results showed that no significant associations with e-cigarette use were observed for all factors involved in Adverse Childhood Experiences (ACE), including depression, mental illness, alcoholism, substance abuse, incarceration, parental separation, domestic violence, and sexual abuse by family members. All of the estimated coefficients had p-values above the significance level ( $\alpha = 0.05$ ), indicating that there was no significant relationship between these factors and e-cigarette use. Therefore, based on these modeling results, we did not find evidence to support an association between adverse childhood experiences and e-cigarette use.

## References

Andersen, J. P., & Bloosnich, J. (2013). Disparities in adverse childhood experiences among sexual minority and heterosexual adults: Results from a multi-state probability-based sample. *PLoS ONE*, 8(1), e54691.

<https://doi.org/10.1371/journal.pone.0054691>

Craig, S. L., Austin, A., Levenson, J., Leung, V. W., Eaton, A. D., & D'Souza, S. A. (2020). Frequencies and patterns of adverse childhood events in LGBTQ+ youth. *Child abuse & neglect*, 107, 104623.

Dowling, B. A., Grigsby, T. J., Ziomek, G. J., & Schnarrs, P. W. (2023). Substance use outcomes for sexual and gender minority adults with a history of adverse childhood experiences: a scoping review. *Drug and alcohol dependence reports*, 6, 100129.

Mustanski, B., Andrews, R., & Puckett, J. A. (2016). The effects of cumulative victimization on mental health among lesbian, gay, bisexual, and transgender adolescents and young adults. *American Journal of Public Health*, 106(3), 527-533.

<https://doi.org/10.2105/AJPH.2015.302976>

Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2009). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing*, 23(4), 205-213. <https://doi.org/10.1111/j.1744-6171.2010.00246.x>

Roberts, A. L., Austin, S. B., Corliss, H. L., Vander Morris, A. K., & Koenen, K. C. (2010). Pervasive trauma exposure among US sexual orientation minority adults and risk

of posttraumatic stress disorder. *American Journal of Public Health*, 100(12), 2433-2441.

<https://doi.org/10.2105/AJPH.2009.168971>