

## ACEs and Trauma Annotated Bibliography

### List of Topics in Bibliography

- General Effects of Trauma/ACES on health **1-10**
- Anxiety **10**
- College Students **10-31**
- Juvenile Delinquency **31-34**
- Children and Teens **34-38**
- Latino **38-43**
- LGBT **43-44**
- Ethnicity/race differences **44-47**
- Disabilities **47-50**
- Family/Parents **50-56**
- Gender **56-63**

### ACES Effect on Health/Mental Health

Afifi, T. O., Mather, A., Boman, J., Fleisher, W., Enns, M. W., MacMillan, H., Sareen, J. (2011). Childhood adversity and personality disorders: Results from a nationally representative population-based study. *Journal of Psychiatric Research*, 45, 814-822. doi:10.1016/j.jpsychires.2010.11.008

- Although, a large population-based literature exists on the relationship between childhood adversity and Axis I mental disorders, research on the link between childhood adversity and Axis II personality disorders (PDs) relies mainly on clinical samples. The purpose of the current study was to examine the relationship between a range of childhood adversities and PDs in a nationally representative sample while adjusting for Axis I mental disorders. The results indicated that many types of childhood adversity were highly prevalent among individuals with PDs in the general population and childhood adversity was most consistently associated with schizotypal, antisocial, borderline, and narcissistic PDs. The most robust childhood adversity findings were for child abuse and neglect with cluster A and cluster B PDs after adjusting for all other types of childhood adversity, mood disorders, anxiety disorders, substance use disorders, other PD clusters, and sociodemographic variables (Odd Ratios ranging from 1.22 to 1.63). In these models, mood disorders, anxiety disorders, and substance use disorders also remained significantly associated with PD clusters (Odds Ratios ranging from 1.26 to 2.38).

Brogden, L.E. (2015). *Resiliency of community college students with adverse childhood experiences*. Retrieved from ODU Digital Commons. doi: 10.25777/6apd-kg74

- Adverse childhood experiences (ACEs) as defined by Drs. Vincent Felitti and Robert Anda are prevalent in the general population of the United States. These childhood traumas are strongly related to risky behaviors and poor health outcomes. The results of childhood stress may influence students at community colleges. This study of community college students with identified adverse childhood experiences will describe their perceived experiences in community colleges as they relate to their success and completion. This study is done in a framework of resilience in order to identify factors which may be influential in students' progress and completion.

Chapman, D. P., Wheaton, A. G., Anda, R. F., Croft, J. B., Edwards, V. J., Liu, Y., ... & Perry, G. S. (2011). Adverse childhood experiences and sleep disturbances in adults. *Sleep Medicine*, 12(8), 773-779. <https://doi.org/10.1016/j.sleep.2011.03.013>

- Trouble with sleeping is related to poor health outcomes, such as depression and pain. ACEs are related to similar issues. Researchers tested the relationship between ACEs and experiencing issues with sleep in adulthood. Researchers found that experiencing ACEs increases the likelihood of two different types of sleep disturbances, and that the more ACEs one experiences, the more likely one is to experience a sleep disturbance. Researchers posit that stress related to ACEs may impact sleep directly, or may change the biology of the brain, thus impacting sleep. Researchers also point out that some of the negative behavioral outcomes associated with ACEs (such as drinking) may negatively impact sleep.

Charles, N. E., Ryan, S. R., Bray, B. C., Mathias, C. W., Acheson, A., & Dougherty, D. M. (2016). Altered developmental trajectories for impulsivity and sensation seeking among adolescent substance users. *Addictive Behaviors*, 60, 235-241.

doi: 10.1016/j.addbeh.2016.04.016

- The correlation between impulsivity and sensation seeking and substance abuse in teens is discussed. Researchers interviewed almost 400 youth ages 10-12 to look at this connection through a more longitudinal (as opposed to cross-sectional) lense. Participants were divided into groups based on frequency of use (no use, irregular use, and regular use). Results are consistent with findings from previous studies.

Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & Behavior*, 106(1), 29-39.

<https://doi.org/10.1016/j.physbeh.2011.08.019>

- The impact of ACEs on the biology of a developing child is discussed. Some of these effects include impaired prefrontal cortex functioning and higher levels of inflammation. By reviewing results from cross-sectional studies, the authors conclude that these effects carry on from childhood into adulthood, changing the underlying physiology of one's bodily functions. Long-term, through these

changes ACEs can lead to the development of age-related diseases and other effects on aging and health.

Dube, S. R., Anda, R. F., Felitti, V. J., Edwards, V. J., & Croft, J. B. (2002). Adverse childhood experiences and personal alcohol abuse as an adult. *Addictive Behaviors*, 27(5), 713-725. [https://doi.org/10.1016/S0306-4603\(01\)00204-0](https://doi.org/10.1016/S0306-4603(01)00204-0)

- Adult alcohol abuse has been linked to childhood abuse and family dysfunction. However, little information is available about the contribution of multiple adverse childhood experiences (ACEs) in combination with parental alcohol abuse, to the risk of later alcohol abuse. A questionnaire about childhood abuse, parental alcoholism and family dysfunction while growing up was completed by adult HMO members in order to retrospectively assess the independent relationship of eight ACEs to the risk of adult alcohol abuse. The number of ACEs was used in stratified logistic regression models to assess their impact on several adult alcohol problems in the presence or absence of parental alcoholism. Each of the eight individual ACEs was associated with a higher risk alcohol abuse as an adult. Compared to persons with no ACEs, the risk of heavy drinking, self-reported alcoholism, and marrying an alcoholic were increased twofold to fourfold by the presence of multiple ACEs, regardless of parental alcoholism. Prevention of ACEs and treatment of persons affected by them may reduce the occurrence of adult alcohol problems. [ABSTRACT FROM AUTHOR]

Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, 111(3), 564-572. Retrieved from <https://login.proxy.lib.fsu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.98921551&site=eds-live>

- A retrospective study was conducted to look at the association between illicit drug use and presence of ACEs. Researchers found that individuals with more ACEs were at higher risk for drug use and addiction. The presence of each type of ACE increased the likelihood of early drug use by 2-4 times. The study points out that illicit drug use typically begins in adolescence or young adulthood. Researchers discuss that those that experience ACEs may have feelings of hopelessness, chaos, and impermanence and may use drugs to avoid these painful feelings. Researchers note that the rates found in this study may be lower than they truly are, as the participants may have difficulty with recall due to the nature of retrospective studies.

Dunlop, S. M., & Romer, D. (2010). Adolescent and young adult crash risk: Sensation seeking, substance use propensity and substance use behaviors. *Journal of Adolescent Health*, 46(1), 90-92. doi:10.1016/j.jadohealth.2009.06.005

- Researchers explore the relationship between substance use, sensation-seeking, and motor vehicle crashes in adolescents and young adults. Researchers propose that because individuals high in sensation-seeking personality traits tend to engage in risky behaviors, they are more likely to both abuse substances and get into motor vehicle crashes. Data was obtained via an annual telephone survey performed in Pennsylvania. Results of the study imply that youth's tendency to use multiple substances is a better predictor of motor crashes than any specific substance use behaviors. Although sensation-seeking was related to substance use propensity, not all individuals with sensation-seeking personalities had an increased crash risk.

Fetzner, M. G., Peluso, D. L., & Asmundson, G. J. (2014). Tolerating distress after trauma: Differential associations between distress tolerance and posttraumatic stress symptoms. *Journal of Psychopathology and Behavioral Assessment*, 36(3), 475-484. doi:10.1007/s10862-014-9413-6

- Distress tolerance has been implicated in disorders of emotional regulation, such as eating disorders and borderline personality disorder; however, much less attention has been given to distress tolerance in the context of posttraumatic stress (PTS). Several conceptual linkages between distress tolerance and PTS exist. Low distress tolerance may increase negative appraisals, reducing an individual's propensity to deal with distressing mental symptoms immediately after a trauma. Relatedly, a perceived inability to cope with the distress brought on by trauma-related memories and cues may engender maladaptive coping strategies. The few published studies examining the relationship between distress tolerance and PTS have demonstrated that lower distress tolerance was associated with increased PTS symptomatology, including increased avoidance, hyperarousal, and re-experiencing. The current study sought to replicate and extend the emerging empirical base by examining the relationship between distress tolerance and the four distinct PTS symptom clusters, while controlling for time since the index trauma and depressive symptoms. Results indicated that distress tolerance accounted for significant unique variance in re-experiencing and avoidance but not negative emotionality and hyperarousal symptoms. There was also a strong positive association between the number of traumas endorsed by participants, depression, and PTS symptoms. Findings suggest that distress tolerance is associated with PTS, lending further support to the putative relationship between PTS and distress tolerance. Accordingly, developing treatment protocols designed to increase distress tolerance in individuals affected by PTS may reduce symptom severity and increase coping abilities.

Hampson, S. E., Edmonds, G. W., Goldberg, L. R., Barckley, M., Klest, B., Dubanoski, J. P., & Hillier, T. A. (2016). Lifetime trauma, personality traits, and health: A pathway to

midlife health status. *Psychological Trauma: Theory Research Practice And Policy*, 8(4), 447-454. doi: 10.1037/tra0000137

- “Objective: This study investigated whether lifetime experience of trauma is related to personality through instrumental and reactive trait processes, and whether lifetime trauma is a mechanism underlying the association between childhood conscientiousness and objectively assessed adult physical health. Method: Participants (N = 831) were 442 women and 389 men from the Hawaii longitudinal study of personality and health. Teacher assessments of personality were obtained when the participants were in elementary school. Self-reported adult personality assessments, lifetime histories of trauma experience, and objectively assessed physiological dysregulation were obtained between ages 45-55. Results: Women tended to report more high-betrayal trauma than men, whereas men reported more low-betrayal trauma than women. Women who were judged by their teachers to be less agreeable and less conscientious in childhood reported more lifetime trauma, suggesting instrumental trait processes. For both genders, neuroticism and openness/intellect/imagination in adulthood, but not in childhood, were associated with lifetime trauma, suggesting reactive trait processes. For both genders, trauma experience was correlated with dysregulation and with Body Mass Index (BMI). The indirect paths from childhood conscientiousness to adult dysregulation and BMI through total teen and adult trauma were significant for women, but not for men (indirect effect for women's dysregulation =  $-.025$ ,  $p = .040$ , 95% confidence interval [CI] =  $-.048$ ,  $-.001$ ; indirect effect for women's BMI =  $-.037$ ,  $p = .009$ , 95% CI =  $-.067$ ,  $-.008$ ). Conclusion: Teen and adult trauma experience appears to be a hitherto unidentified mechanism in women underlying the association between conscientiousness and health.” [Abstract from Author]

Leigh Wills, J., & Schulberg, D. (2016). Chronic trauma effects on personality traits in police officers. *Journal of Traumatic Stress*, 29(2). 185-189.  
doi: 10.1002/jts.22089

- The researchers examined 200 clinical high-risk individuals. The results showed that a trauma history was reported more by females and Hispanic/Latinos. Individuals with a trauma history had higher rates of suicidal ideation and suicidal behavior. Trauma history was not related to conversion to psychosis. These findings indicate that trauma may significantly impact the severity of attenuated positive symptoms and suicidality in the CHR state.

Merrick, M. T., Ford, D. C., Ports, K. A., & Guinn, A. S. (2018). Prevalence of adverse childhood experiences from the 2011-2014 behavioral risk factor surveillance system in 23 states. *JAMA Pediatrics*. doi:10.1001/jamapediatrics.2018.2537

- This article summarizes the results of data collected about Adverse Childhood Experiences (ACEs) through the Behavioral Risk Factor Surveillance System (BRFSS) from 2011-2014. BFRSS is an annual phone survey that asks participants about health conditions and health-related behaviors. The goal of the study was to compare ACE scores and specific ACEs across demographic factors. Participants were asked about ACEs they have experienced as well as their demographic information. ACEs were divided into eight categories, including emotional abuse, physical abuse, sexual abuse, intimate partner violence, household substance abuse, household mental illness, parental separation or divorce, and incarcerated household member. The demographic characteristics measured included sex, age, race and ethnicity, household income, educational attainment, employment status, sexual orientation, sexual orientation, and census region. The results suggested ACEs occur across all different demographic populations but some populations are more likely to experience certain ACEs and/or have higher ACE scores in general.

Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect*, 69, 10–19. doi:10.1016/j.chiabu.2017.03.016

- Exposure to early adversity can compromise lifelong and intergenerational health and wellness.
- The relationship between childhood adversity and mental health is a public health issue due to both the magnitude and effects of mental illness in adulthood.
- Depression is a large contributor to morbidity and mortality and remains one of the most common types of mental illness.
- Not only are ACEs common, but they are also associated with future violence and victimization, health risk behaviors, chronic health conditions, mental illness, decreased life potential, and premature death - as an individual's ACE score or exposure to childhood adversity increases, their risk for experiencing poorer adult outcomes also increases.
- This study seeks to deconstruct the relationship between ACE score and mental health outcomes in adulthood by examining each ACE separately.
- Individuals with six or more ACEs had 2.73 times increased odds of reporting depressed affect during adulthood, 24.36 times increased odds of attempting suicide, 3.73 times increased odds of reporting drug use, and 2.84 times increased odds of reporting moderate to heavy drinking, compared to individuals with no ACEs, after adjusting for sociodemographic factors.
- Understanding how different forms of childhood adversity individually and additively influence health outcomes can elucidate key risk factors and protective factors.

Rothman, E. F., Edwards, E. M., Heeren, T., & Hingson, R. W. (2008). Adverse childhood experiences predict earlier age of drinking onset: Results from a representative US sample of current or former drinkers. *Pediatrics*, *122*(2), e298-e304. doi: 10.1542/peds.2007-3412

- This study surveyed current and former drinkers to determine whether experiencing ACEs predicted the age at which one started drinking as well as motives for drinking. Researchers found that certain ACEs (physical abuse, sexual abuse, having a mentally ill household member, substance abuse in the home, and parental discord or divorce) may influence earlier drinking and may make individuals more likely to drink as a coping mechanism. Over two thirds of the sample had experienced at least one ACE, and 19% had experienced at least 4 ACEs. Researchers found a graded relationship between the number of ACEs experienced and the age of onset of drinking. Findings also demonstrate that children with certain ACEs may drink for different reasons than children that have not had these experiences. Researchers point out that ACEs may lead to earlier drinking due to the negative impact of trauma on the brain.

Sachs-Ericsson, N. J., Rushing, N. C., Stanley, I. H., & Sheffler, J. (2016). In my end is my beginning: Developmental trajectories of adverse childhood experiences to late-life suicide. *Ageing & Mental Health*, *20*(2), 139-165. doi:10.1080/13607863.2015.1063107

- “Objectives: Converging evidence suggests that the sequelae of adverse childhood experiences (ACEs) including childhood abuse (e.g., sexual, physical, emotional/verbal abuse, neglect) and other ACE (e.g., family dysfunction, parental loss, parental psychopathology, substance abuse, incarceration, and domestic violence) have pronounced effects on suicidal behaviors (suicidal ideation, attempts, and death by suicide) in older age. There are fundamental changes in the developmental trajectory of biological, psychological and behavioral processes that result from ACE and that exert influence throughout the life span. Different moderators and mediators may affect the extent and nature of the relationship. However, the literature on the specific mechanisms whereby ACE affects suicidality in later life has not been well identified. Method: We review and draw from extant multidisciplinary evidence to develop a heuristic framework through which to understand how ACE may lead to suicide in later life. Results: Proposed mechanisms span biological factors (neurological, gene-environment), psychiatric and health functioning, and psychosocial development (cognitive biases, coping resources, interpersonal deficits). Evidence suggests that ACEs affect each of these constructs, and it is likely in the interaction of these constructs with late-life stressors that suicidality in older adulthood emerges. Conclusion: ACEs have persistent and multifaceted effects on suicidality in late life. This association is due to multi-varied pathways. It is

believed that the explanatory framework developed herein – in which biological, psychological and behavioral factors are organized, and the role of late-life stressors is highlighted – will spark further scientific inquiry into this important area.” [ABSTRACT FROM AUTHOR]

Shonkoff, J. P., Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., Garner, A. S., ... & Wood, D. L. (2011). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, *129*(1), e232-e246. doi:10.1542/peds.2011-2663

- This cumulative, stress-induced burden on overall body functioning and the aggregated costs, both physiologic and psychological, required for coping and returning to homeostatic balance, have been referred to as “allostatic load”.
- Toxic stress and developing brain:
  - Chronic stress is associated with hypertrophy and overactivity in the amygdala and orbitofrontal cortex, leading to more anxiety. Significant stress in early childhood can trigger amygdala hypertrophy and result in a hyperresponsive or chronically activated physiologic stress response, along with increased potential for fear and anxiety.
- Comparable levels of adversity can lead to loss of neurons and neural connections in the hippocampus and medial PFC - functional consequences of these structural changes include less top-down control as a result of PFC atrophy as well as impaired memory and mood control as a consequence of hippocampal reduction.
- Because the hippocampus and PFC both play a significant role in modulating the amygdala’s initiation of the stress response, toxic stress– induced changes in architecture and connectivity can result in some children appearing to be both more reactive to even mildly adverse experiences and less capable of effectively coping with future stress.
- Conclusion: stress-induced changes in the architecture of the developing brain (eg, amygdala, hippocampus, and PFC) can have potentially permanent effects on regulating stress physiology, learning new skills, and developing the capacity to make healthy adaptations to future adversity.
- 3 distinct types of stress responses (in contrast to the actual stressors themselves) in young children—positive, tolerable, and toxic
- Toxic stress -strong, frequent, or prolonged activation of the body’s stress response systems in the absence of the buffering protection of a supportive, adult relationship. (ACEs are stressors capable of inducing a toxic stress response)
- The potential consequences of toxic stress in early childhood for the pathogenesis of adult disease are considerable

- Behavior- there is extensive evidence of a strong link between early adversity and a wide range of health-threatening behaviors
- Advances in neuroscience, molecular biology, and genomics have converged on 3 compelling conclusions:
  1. early experiences are built into our bodies;
  2. significant adversity can produce physiologic disruptions or biological memories that undermine the development of the body's stress response systems and affect the developing brain architecture, cardiovascular system, immune system, and metabolic regulatory controls; and
  3. these physiologic disruptions can persist far into adulthood and lead to lifelong impairments in both physical and mental health.

Strine, T. W., Dube, S. R., Edwards, V. J., Witt Prehn, A., Rasmussen, S., Wagenfeld, M., & ... Croft, J. B. (2012). Associations between adverse childhood experiences, psychological distress, and adult alcohol problems. *American Journal Of Health Behavior*, 36(3), 408-423. doi:10.5993/AJHB.36.3.11

- “Objective: To examine the mediating role of psychological distress on the relationship between adverse childhood experiences and adult alcohol problems by gender. Methods: Linear and logistic regression analyses were conducted on 7279 Kaiser- Permanente members, aged >18 years. Results: Psychological distress mediated significant proportions of alcohol problems associated with childhood emotional abuse and neglect, physical abuse and neglect, mental illness in the household, parental separation or divorce, sexual abuse, and household drug use among women and mental illness in the household, emotional neglect, physical abuse, household drug use, and sexual abuse among men. Conclusion: It may be important to identify early childhood trauma and adult psychological distress in programs that focus on reducing alcohol abuse.” [Abstract from Author]

Wilkins, N., Tsao, B., Hertz, M. F., Davis, R., & Klevens, J. (2014, July). *Connecting the dots: an overview of the links among multiple forms of violence*. Retrieved from [https://www.cdc.gov/violenceprevention/pdf/connecting\\_the\\_dots-a.pdf](https://www.cdc.gov/violenceprevention/pdf/connecting_the_dots-a.pdf)

- Violence takes many forms, including intimate partner violence, sexual violence, child maltreatment, bullying, suicidal behavior, and elder abuse and neglect. These forms of violence are interconnected and often share the same root causes. They can also all take place under one roof, or in a given community or neighborhood and can happen at the same time or at different stages of life. Understanding the overlapping causes of violence and the things that can protect people and communities is important, and can help us better address violence in all its forms. The purpose of this brief is to share research on the connections

between different forms of violence and describe how these connections affect communities. It is our hope that this information, combined with your own practical experience, will help practitioners like you to think strategically and creatively about how you can:

1. Prevent all types of violence from occurring in the first place.
2. Coordinate and integrate responses to violence in a way that recognizes these connections and considers the individual in the context of their home environment, neighborhood, and larger Community.

## Anxiety

Brown, J. (2016, October 2). Anxiety and depression: Anxiety the most common mental health diagnosis in college students. *BU Today*. Retrieved from <http://www.bu.edu/today/2016/college-students-anxiety-and-depression/>

- This article looked at recent studies looking into the increased rates of anxiety diagnoses surpassing diagnoses of depression. This article goes over what is normal “stress” for college students and when to seek help.

Eisenberg, D., Lipson, S.K., Ceglarek, P., Kern, A., & Phillips, M.V. (2019). College student mental health: The national landscape. In M.D. Cimini & E.M. Rivero (Eds.), *Promoting behavioral health and reducing risk among college students: A comprehensive approach*. Retrieved from <http://healthymindsnetwork.org/system/resources/W1siZiIsIjIwMTg0MDEvMjQvMTFfMjFfMzdfNDQ3X0h1YWx0aHlfTWluZHNfQm9va19DaGFwdGVyLnBkZiJdXQ/Healthy%20Minds%20--%20Book%20Chapter.pdf>

- “The purpose of this chapter is to describe the national landscape of student mental health using the most recent data from the Healthy Minds Study (HMS). These descriptive data can help campus professionals and administrators, as well as other researchers, identify areas of need and opportunity, and thereby establish priorities for their programs, funding, and research projects.” [FROM AUTHORS]

The National Institute of Mental Health. (2018, July). Anxiety disorders. Retrieved from [https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml#part\\_145333](https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml#part_145333)

- “Overview: Occasional anxiety is a normal part of life. You might feel anxious when faced with a problem at work, before taking a test, or making an important decision. But anxiety disorders involve more than temporary worry or fear. For a person with an anxiety disorder, the anxiety does not go away and can get worse over time. The feelings can interfere with daily activities such as job performance, school work, and relationships. There are several different types of anxiety

disorders. Examples include generalized anxiety disorder, panic disorder, and social anxiety disorder.” [OVERVIEW FROM AUTHOR]

## College Students

Arria, A. M., O'Grady, K. E., Caldeira, K. M., Vincent, K. B., Wilcox, H. C., & Wish, E. D. (2009). Suicide ideation among college students: A multivariate analysis. *Archives of Suicide Research, 13*(3), 230-246. doi:10.1080/13811110903044351

- The goal of this study was to develop a multi-dimensional model that might explain suicide ideation among college students. Face-to-face interviews were conducted with 1,249 first-year college students. An estimated 6%wt of first-year students at this university had current suicide ideation. Depressive symptoms, low social support, affective dysregulation, and father-child conflict were each independently associated with suicide ideation. Only 40% of individuals with suicide ideation were classified as depressed according to standard criteria. In the group who reported low levels of depressive symptoms, low social support and affective dysregulation were important predictors of suicide ideation. Alcohol use disorder was also independently associated with suicide ideation, while parental conflict was not. Results highlight potential targets for early intervention among college students.

Avant, E. M., Swopes, R. M., Davis, J. L., & Elhai, J. D. (2011). Psychological abuse and posttraumatic stress symptoms in college students. *Journal of Interpersonal Violence, 26*(15), 3080-3097. doi: 10.1177/0886260510390954

- The relationship between recent psychological abuse and posttraumatic stress (while factoring in the impacts of other types of recent relationship abuse and lifetime history of trauma) was studied in college students. Results show that trauma history (but not recent relationship-related trauma) predicted PTSD symptoms in college women but not college men.

Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers: Results from the national epidemiologic study on alcohol and related conditions. *Archives of General Psychiatry, 65*(12), 1429-1437. doi:10.1001/archpsyc.65.12.1429

- Prevalence of psychiatric disorders, sociodemographics, and rates of treatment among college students was assessed and compared to that of young adults of that age not attending college. College students were, overall, more likely than non-college attending peers to have a psychiatric disorder, but less likely to have drug use disorder or nicotine dependence disorder than those not attending college. The study highlights the seriousness of the prevalence and risk and

protective factors that contribute to psychiatric disorders and substance abuse in this population. Finally, the study compares treatment rates for these two groups. Bernat J. A., Ronfeldt H. M., Calhoun K. S., & Arias I. (1998). Prevalence of traumatic events and peritraumatic predictors of posttraumatic stress symptoms in a nonclinical sample of college students. *Journal of Traumatic Stress, 11*(4), 645–664.

doi:10.1023/A:1024485130934

- This study investigated lifetime prevalence of traumatic events and posttraumatic stress disorder (PTSD) symptoms among 937 college students. Participants rated their lifetime experiences of traumatic events and, in response to their "most stressful" event, completed measures of objective stressor dimensions, PTSD, and peritraumatic reactions. Approximately 67% of respondents reported at least one traumatic event. An estimated 4% of the full sample (12% of traumatized individuals) met PTSD criteria within the past week. After controlling for vulnerability factors and objective characteristics, peritraumatic reactions remained strongly predictive of PTSD symptoms. Results are discussed with respect to immediate reactions to traumatic events as potential precursors of PTSD symptomatology.

Brener, N. D., McMahon, P. M., Warren, C. W., & Douglas, K. A. (1999). Forced sexual intercourse and associated health-risk behaviors among female college students in the United States. *Journal of Consulting and Clinical Psychology, 67*(2), 252–259.

<http://dx.doi.org/10.1037/0022-006X.67.2.252>

- This study analyzed data from the 1995 National College Health Risk Behavior Survey (NCHRBS) to assess the prevalence of lifetime rape among female college students and to examine the association between rape and health-risk behaviors. The NCHRBS used a mail questionnaire to assess health-risk behaviors among a nationally representative sample of undergraduate students. Twenty percent of female students reported ever having been forced to have sexual intercourse, most often during adolescence. When analyses controlled for demographic characteristics, female students who had ever been raped were significantly more likely than those who had not to report a wide range of health-risk behaviors. These results highlight a need to improve rape prevention and treatment programs for female adolescents.

Castillo, L. G., & Schwartz, S. J. (2013). Introduction to the special issue on college student mental health. *Journal of Clinical Psychology, 69*(4), 291–297.

doi:10.1002/jclp.21972

- This article provides an introduction to the special issue on college student mental health. It gives an overview of the establishment of the Multi-Site University Study of Identity and Culture (MUSIC) collaborative by a group of national experts on culture and identity. Information about the procedures used to

collect a nationally represented sample of college students are provided.

**METHOD:** Data were collected from 30 university sites across the United States. The sample comprised 10,573 undergraduate college students, of which 73% were women, 63% White, 9% African American/Black, 14% Latino/Hispanic, 13% Asian American, and 1% Other. **RESULTS:** The special issue comprises a compilation of 8 studies that used the dataset specifically created to examine the issues of emerging adults, culture, and identity. **CONCLUSIONS:** Student mental health problems are a growing concern on college campuses. Studies covered in this special issue have implications for policy development regarding college alcohol use and traumatic victimization, include attention to underrepresented minority and immigrant groups on college campuses, and focus on positive as well as pathological aspects of the college experience.

Centers for Disease Control and Prevention. (2016, June 14). About the CDC-Kaiser ACE study. Retrieved from <https://www.cdc.gov/violenceprevention/acestudy/about.html>

- The CDC-Kaiser Permanente Adverse Childhood Experiences (ACE) Study is one of the largest investigations of childhood abuse and neglect and later-life health and well-being. The original ACE Study was conducted at Kaiser Permanente from 1995 to 1997 with two waves of data collection. Over 17,000 Health Maintenance Organization members from Southern California receiving physical exams completed confidential surveys regarding their childhood experiences and current health status and behaviors. The CDC continues ongoing surveillance of ACEs by assessing the medical status of the study participants via periodic updates of morbidity and mortality data.

Chandler, G. E., Roberts, S. J., & Chiodo, L. (2015). Resilience intervention for young adults with adverse childhood experiences. *Journal of the American Psychiatric Nurses Association*, 21(6), 406-416. doi:10.1177/1078390315620609

- Researchers tested a psycho-educational intervention designed to help increase resilience and decrease negative health behaviors in a sample of female college students. The intervention involved weekly meetings for 4 weeks in which participants engaged in mindfulness exercises, freewriting, and discussion on the group's homework assignments. Researchers found that this program is feasible to implement. While the scores of participants' pre- and post-tests for resilience and symptoms did not improve significantly following the program, written narratives provided by the participants indicate that the program was beneficial. Furthermore, results imply that the program was more effective in promoting healthy behaviors than reducing the risk of negative symptoms. Written feedback from participants showed that they felt that the program helped them see the importance of focusing on strengths, reframing negative views into more positive ones, and the benefits of social support.

Counts, C. J., Grubin, F. C., & John-Henderson, N. A. (2018). Childhood socioeconomic status and risk in early family environments: Predictors of global sleep quality in college students. *Sleep Health: Journal of the National Sleep Foundation*, 4(3), 301-306.

<https://doi.org/10.1016/j.sleh.2018.02.003>

- Researchers explored whether early life experiences affect college students' sleep quality. Researchers assessed trauma using a measure that accounted for both the presence of adversity and the presence or absence of warmth and affection in the home. The interaction between this measure and students' Socioeconomic status was also examined. Researchers found that lower SES was associated with lesser sleep quality, which was moderated by students' childhood family experiences. Findings suggest that students raised in low SES-households that have also experienced childhood trauma may be at an increased risk of having poor sleep quality.

Cromer, L. D., & Freyd, J. J. (2009). Hear no evil, see no evil? Associations of gender, trauma history, and values with believing trauma vignettes. *Analyses of Social Issues and Public Policy*, 9(1), 85-96. doi:10.1111/j.1530-2415.2009.01185.x

- Researchers investigated the influence of gender, history of trauma, and beliefs about gender and child sexual abuse on college students' decision on whether or not disclosures of childhood sexual abuse and other types of trauma were true. Participants were given 10 vignettes describing hypothetical trauma disclosure and had to decide whether or not the disclosure was true. The results of the study show that men were more skeptical of disclosures than women, as were those that didn't have a history of trauma. Participants were less likely to believe disclosures of childhood sexual abuse than other types of trauma.

De Von Figueroa-Moseley, C., Abramson, J. M., & Williams, G. C. (2010). College women: History of childhood abuse and its relationship to smoking. *Violence Against Women*, 16(11), 1242-1251. doi:10.1177/1077801210386773

- This study examined the relationship between childhood abuse and smoking in female college students. Results indicate that childhood abuse is a strong predictor of both early and current smoking in college women. Researchers found that students that had experienced two or more types of abuse had almost triple the risk of early and current smoking. Researchers also found that neglect and being touched in a sexual manner were two specific types of abuse that most significantly increased risk of smoking.

Duncan, R.D. (2000). Childhood maltreatment and college drop-out rates: Implications for child abuse researchers. *Journal of Interpersonal Violence*, 15(9), 987-995.

<https://doi.org/10.1177/088626000015009005>

- This study, which followed 210 freshmen through 4 years of college, found that by their second semester in college, students who reported experiencing more

than one form of childhood abuse (physical, sexual, or emotional) and those who were sexually assaulted but not otherwise maltreated were significantly less likely to be enrolled than non-victims. By the end of their senior years, only 35% of multiple victims, 50% of those sexually abused only, and 60% of non-victims were enrolled. Symptoms of post-traumatic stress disorder (PTSD) at the 2nd week of the freshman year were significantly related to college attendance at the 4th year, with a significant interaction between PTSD and abuse history as they related to remaining in or dropping out of college. Unless researchers studying the impact of childhood trauma in college samples are examining first-semester freshmen, it is likely that the research is being conducted with only the healthiest of survivors, which could lead to inaccurate conclusions about the abuse population as a whole.

Dykes, G. (2012). Phronesis and adverse childhood experiences of social work students. *The Social Work Practitioner-Researcher*, 24(3), 331–348. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1002.1082&rep=rep1&type=pdf>

- The ACEs of social work participants demonstrated the adverse and often traumatic experiences endured during their childhood, the most vulnerable phase of human development. Students bring their experiences into the social work classroom and the concern was that these would possibly extend beyond the classroom into professional practice. The conclusion is that the most appropriate time for assisting students would be during their social work training. Phronesis allowed for an increased awareness of the implications of ACEs and how these should be addressed within the social work curriculum. The precursor was an acceptance that ACEs could be affecting the majority of social work students and that the impact on the student should not be ignored. The social work curriculum can provide many learning opportunities for students to appropriately position their experiences as a scaffold in their training into becoming insightful and empathic professional social workers. These learning opportunities need to be further researched.

Dykes, G. (2011). The implications of adverse childhood experiences for the professional requirements of social work. *Social Work/Maatskaplikewerk* 47(4), 521-533. doi:<http://dx.doi.org/10.15270/47-4-120>

- The problem in this study centres on the perception that the high incidence of ACEs endured by social work students impacts on students' learning and compromises their future professional and ethical practice. This article seeks to add to the discussion on the implications of ACE for the professional requirements of social work at South African universities.

El Mhamdi, S., Lemieux, A., Bouanene, I., Salah, A. B., Nakajima, M., Salem, K. B., & Al'absi, M. (2017). Gender differences in adverse childhood experiences, collective violence, and the risk for addictive behaviors among university students in Tunisia. *Preventive Medicine, 99*, 99-104. doi:10.1016/j.ypmed.2017.02.011

- Researchers looked at the link between ACEs and addictive behaviors in a sample of college students in Tunisia. Violence within the family was linked to an increased risk for addictive behavior, especially in men, and ACEs in general were linked to a higher risk of having mental health issues, especially in women. Violence outside of the family was also shown to increase the risk of developing addictive behaviors in both men and women, and certain types of violence outside of the home were shown to predict mental health difficulties in men.

Filipkowski, K. B., Heron, K. E., & Smyth, J. M. (2016). Early adverse experiences and health: The transition to college. *American Journal of Health Behavior, 40*(6), 717-728. <https://doi.org/10.5993/AJHB.40.6.4>

- Researchers looked at the impact of early childhood adversity on perceived stress, physical health symptoms, and dangerous health behaviors. Researchers looked at these effects both when students entered college and over the students' first semester of school. About 72% of the sample reported having experienced at least one ACE. Higher adversity was related to higher levels of stress, more physical symptoms, more cigarette smoking, and more risky sexual behavior. Adversity predicted increased physical symptoms and drug use over the course of the semester. Researchers did not find a significant relationship between stress and risky health behavior, but did find that stress impacted the relationship between adversity and physical symptoms over the course of the semester. Researchers conclude that incoming college students may benefit from screening and resources.

Forster, M., Grigsby, T. J., Rogers, C. J., & Benjamin, S. M. (2018). The relationship between family-based adverse childhood experiences and substance use behaviors among a diverse sample of college students. *Addictive behaviors, 76*, 298-304. doi:10.1016/j.addbeh.2017.08.037

- Researchers explore the connection between ACEs and substance use in college students. Researchers point out that college students are more likely to use and misuse substances, and call for better services for this population. The current study explored the relationship between ACE exposure and substance use, the proportion of college students with a history of family adversity that use substances, and looks at whether or not these associations vary by ethnicity. Results indicate that the most common ACEs for this sample were verbal abuse, parental substance abuse, sexual abuse by a caregiver, physical abuse by a caregiver, and witnessing domestic violence. Results also indicate that the

relationship between ACE exposure and substance use behavior varies by ethnicity. The study concludes by pointing out the need to address the consequences of ACEs (including substance use) in college.

Fraternal Health & Safety Initiative. (n.d.). Alcohol & other drug abuse prevention. Retrieved from <http://fhsi.jrfco.com/alcohol-abuse-prevention.html>

- This webpage provides statistics about drug and alcohol use on college campuses.

Fraternal Health & Safety Initiative. (n.d.). Hazing prevention & intervention. Retrieved from <http://fhsi.jrfco.com/hazing-prevention-intervention.html>

- This webpage lists some possible damages caused by hazing and states that hazing does not align with the purpose of fraternities and sororities. It also outlines fraternities' and sororities' commitment to prevent hazing.

Fraternal Health & Safety Initiative. (n.d.). Sexual misconduct prevention. Retrieved from <http://fhsi.jrfco.com/sexual-misconduct-prevention.html>

- This webpage discusses the role of sororities and fraternities in working to prevent sexual assault on college campuses. The page outlines some of the Fraternal Health & Safety Initiative's efforts to educate fraternities and sororities on consent and sexual violence.

Fraternal Health & Safety Initiative. (n.d.). The fraternal health & safety initiative. Retrieved from <http://fhsi.jrfco.com/index.html>

- This webpage outlines the purpose of the Fraternal Health & Safety Initiative and its training modules.

Gibson, L. E., & Leitenberg, H. (2001). The impact of child sexual abuse and stigma on methods of coping with sexual assault among undergraduate women. *Child Abuse & Neglect*, 25(10), 1343–1361. doi:10.1016/S0145-2134(01)00279-4

- The aim of the current study was to determine whether a prior history of child sexual abuse increased the likelihood of using disengagement methods of coping with a sexual assault that had occurred within the past year. Once this was established, a mediational model was tested in which it was hypothesized that specific traumagenic dynamics and changed world views would mediate the association between child and/or adolescent sexual abuse and increased use of disengagement coping methods in response to a recent sexual assault. Results: Sexually assaulted young women with a history of child sexual abuse used more disengagement methods of coping to deal with the adult sexual assault than women without this history. In addition, the relationship between prior sexual abuse and the use of disengagement coping strategies was mediated by feelings of stigma, but not by feelings of betrayal and powerlessness or beliefs in the meaningfulness and benevolence of the world. Conclusions: This is the first study to find that sexually revictimized young women may be particularly at-risk

of relying on disengagement methods of coping with sexual assault.

Furthermore, this association is mediated by feelings of shame or stigma.

Directions for further research and clinical implications are discussed.

Goldsmith, R. E., Freyd, J. J., & DePrince, A. P. (2012). Betrayal trauma: Associations with psychological and physical symptoms in young adults. *Journal of Interpersonal Violence*, 27(3), 547-567. doi:10.1177/0886260511421672

- Researchers compared betrayal trauma to other types of trauma in terms of predicting physical and psychological symptoms in college students. Symptoms of trauma and difficulty identifying and describing emotion (alexithymia) were explored as potential mediators in the relationship between betrayal trauma and physical and psychological symptoms. About 82% of the students reported experiencing at least one type of trauma. Researchers found that trauma involving high levels of betrayal significantly predicted self-reported anxiety, depression, dissociation, alexithymia, physical health issues, and the number of sick days in a month while trauma involving lower levels of betrayal did not. Trauma symptoms and alexithymia were found to mediate the relationship between high betrayal trauma and physical health symptoms. Results imply that the type of trauma experienced by college students may affect the symptoms they experience as a result.

Gress-Smith, J. L., Roubinov, D. S., Andreotti, C., Compas, B. E., & Luecken, L. J. (2015). Prevalence, severity and risk factors for depressive symptoms and insomnia in college undergraduates. *Stress and Health*, 31(1), 63-70. doi:10.1002/smi.2509

- Researchers conducted two studies to examine the prevalence, comorbidities, and risk factors for insomnia and depressive symptoms in college students. The first study looked at prevalence and comorbidity, and found that about one third of students experienced depressive symptoms and about one fourth experienced insomnia, with about one third of the sample reporting experiencing both at the same time. The second study looked at how childhood adversity affects depressive symptoms and insomnia both directly and indirectly. Results from the second study suggest that childhood adversity is directly related to both insomnia and depressive symptoms, and that this relationship may be partly explained by stress

Hingson, R., Heeren, T., Winter, M. R., & Wechsler, H. (2003). Early age of first drunkenness as a factor in college students' unplanned and unprotected sex attributable to drinking. *Pediatrics*, 111(1), 34-41. Retrieved from <http://pediatrics.aappublications.org/content/pediatrics/111/1/34.full.pdf>

- Researchers found that college students that had been drunk for the first time before age 13 were about twice as likely to have unplanned sex and unprotected sex compared to college students that had first gotten drunk at age 19 or older.

College students that had first gotten drunk before age 9 were also more likely to meet criteria for alcohol dependence, binge drink, and have unplanned sex and unprotected sex as a result of alcohol use. Data for this cross-sectional study was obtained from Harvard's 1999 College Alcohol Study.

Hingson, R. W., Zha, W., & Weitzman, E. R. (2009). Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18-24, 1998-2005. *Journal of Studies on Alcohol and Drugs*, 16, 12-20.

doi:10.15288/jsads.2009.s16.12

- Objective: The aim of this study was to estimate, among college students ages 18-24, the numbers of alcohol-related unintentional injury deaths and other problems over the period from 1998 through 2005.
- Method: The analysis integrated data on 18- to 24-year-olds and college students from each of the following data sources: the National Highway Traffic Safety Administration Fatality Analysis Reporting System, Centers for Disease Control and Prevention Injury Mortality Data, National Coroner Studies, census and college enrollment data, the National Household Survey on Drug Use and Health, and the College Alcohol Study.
- Results: Among college students ages 18-24, alcohol-related unintentional injury deaths increased 3% per 100,000 from 1,440 in 1998 to 1,825 in 2005. From 1999 to 2005, the proportions of college students ages 18-24 who reported consuming five or more drinks on at least one occasion in the past month increased from 41.7% to 44.7%, and the proportions who drove under the influence of alcohol in the past year increased from 26.5% to 28.9%—7% and 9% proportional increases, respectively. The increases occurred among college students ages 21-24, not 18-20. In 2001, 599,000 (10.5%) full-time 4-year college students were injured because of drinking, 696,000 (12%) were hit or assaulted by another drinking college student, and 97,000 (2%) were victims of alcohol-related sexual assault or date rape. A 2005 follow-up of students in schools with the highest proportions of heavy drinkers found no significant changes in the proportions experiencing these events.
- Conclusions: The persistence of college drinking problems underscores an urgent need to implement prevention and counseling approaches identified through research to reduce alcohol-related harms among college students and other young adults.

Hunt, Justin & Eisenberg, Daniel. (2010). Mental health problems and help-seeking behavior among college students. *The Journal of Adolescent Health*, 46(1), 3-10.

<https://doi.org/10.1016/j.jadohealth.2009.08.008>

- Mental disorders are as prevalent among college students as same-aged non-students, and these disorders appear to be increasing in number and

severity. The purpose of this report is to review the research literature on college student mental health, while also drawing comparisons to the parallel literature on the broader adolescent and young adult populations.

Johnson, M. C., Graceffo, J. M., Hayes, J. A., & Locke, B. D. (2014). Examining treatment-seeking college students with and without military experience and trauma histories. *Journal of College Counseling, 17*(3), 260-270.

doi:10.1002/j.2161-1882.2014.00062.x

- Researchers discuss the issue of the presence of trauma in college students that are also military veterans. Researchers state that college students that are military veterans need special attention, as they tend to have difficulty re-adjusting to civilian life, which may affect their academics. Researchers looked at use of college counseling centers by military students, the levels of distress of these students, and compared the differences in distress between military college students with trauma at the counseling center and non-military students with trauma at the counseling center. Researchers did not find an increase in the number of military college students using the counseling center from one year to the next. Researchers found that students with military experience reported more hostility and family issues than students that didn't have military experience. Finally, researchers found that students that had experienced military-related trauma did not report higher levels of distress than students that had experienced non-military-related trauma. Researchers conclude that this result, as well as their finding that the rate of military students in counseling did not increase, could be due to the development of resilience in this population.

Jordan, C. E., Combs, J. L., & Smith, G. T. (201). An exploration of sexual victimization and academic performance among college women. *Trauma, Violence & Abuse, 15*(3), 191-200. doi:10.1177/1524838014520637

- Women with prior teen sexual victimization experiences tended to enter college with lower GPA scores and tended to earn lower grades during their first freshman year than did non-victimized women students.
- Women sexually assaulted during their first semester of college tended to have lower GPAs by the end of the semester than did women without a sexual assault experience during the first semester.
- The level of negative academic impact on a woman's academic performance was positively related to the severity of her victimization: higher rates of GPAs under-2.5 were seen among women those whose assault experience was a rape as compared to other forms of sexual assault.

Kalmakis, K. A., Meyer, J. S., Chiodo, L., & Leung, K. (2015). Adverse childhood experiences and chronic hypothalamic–pituitary–adrenal activity. *Stress: The International Journal on the Biology of Stress, 18*(4),446-450.

doi:10.3109/10253890.2015.1023791

- The relationship between ACEs and hair cortisol in a sample of college students was examined in this study. Findings show that having a history of childhood stress was significantly related to chronic low levels of cortisol, indicating to HPA axis dysregulation, which may lead to negative health outcomes such as fatigue in students.

Karatekin, C. (2018). Adverse childhood experiences (ACEs), stress, and mental health in college students. *Stress and Health*. doi:10.1002/smi.2761

- The goal of this short-term longitudinal study was to examine whether adverse childhood experiences (ACEs) could be used to identify college students at risk for mental health problems and whether current level of stress mediates the relationship between ACEs and mental health. Data on ACEs and mental health (depression, anxiety and suicidality) were collected at the beginning of the semester, and data on current stressors and mental health were collected toward the end of the semester (n = 239). Findings indicated that ACEs predicted worsening of mental health over the course of a semester and suggested current number of stressors as a mediator of the relationship between ACEs and mental health. Results suggest that screening for ACEs might be useful to identify students at high risk for deterioration in mental health. Results further suggest that stress-related interventions would be beneficial for students with high levels of ACEs and point to the need for more research and strategies to increase help-seeking in college students.

Karatekin, C. & Ahluwalia, R. (2016). Effects of adverse childhood experiences (ACEs), stress, and social support on the health of college students. *Journal of Interpersonal Violence*. doi:10.1177/0886260516681880

- The goal of the study was to describe the nature of adverse childhood experiences (ACEs) reported by undergraduates and to examine the effect of ACEs, perceived stress, and perceived social support on their health. Although respondents (N = 321) had parents with relatively high levels of education and indicated generally high levels of social support, results nevertheless showed a relatively high level of mental health problems and rates of ACEs that were similar to those in the general population in the state. Those with higher levels of ACEs had greater levels of stress and lower levels of social support. ACEs, social support, and stress explained more than half the variance in mental health scores, with stress making the greatest contribution. Despite the fact that we used different measures and an independent sample, findings generally replicated a previous study. Results point to a need to increase awareness of the association between ACEs and health on college campuses, to examine the

effects of ACEs in more detail, and to design ACE-informed programs for this population.

Kim, Y. H. (2017). Associations of adverse childhood experiences with depression and alcohol abuse among Korean college students. *Child Abuse & Neglect*, 67, 338-348. doi:10.1016/j.chiabu.2017.03.009

- This study investigated adverse childhood experiences of Korean college students and the impact such experiences have on students' depression and alcohol abuse. Using an online questionnaire, 939 college students were surveyed regarding their adverse childhood experiences, depressive symptoms and alcohol use habits. About half of the participants claimed to have experienced at least one adversity in their childhood. Eight percent of participants reported experiencing four or more categories of adversity. The correlations between adverse childhood experiences and depressive symptoms, alcohol abusive behaviors, and the comorbid condition of the two outcomes were significant when students' gender, geographical regions, maternal and paternal education, and family incomes were adjusted. Graded associations of cumulated adverse childhood experiences with the outcome variables were evident. These findings strengthen the link between child maltreatment and adult public health issues carrying socioeconomic burdens, two matters that have not been extensively studied in Korean contexts.

Kim, J. Y., Kim, H. J., Choi, J. W., & Emery, C. (2014). Family violence and dating violence in Korea. *Journal of Family Violence*, 29(1), 23-33. doi:10.1007/s10896-013-9556-3

- Predictors of dating violence in a sample of Korean college students were analyzed. Researchers found that partner violence and child abuse within students' childhood family were associated with perpetrating dating violence, and that this relationship was mediated by neutralizing beliefs. Results indicate that identifying interventions to reduce neutralizing beliefs in this population may help to reduce perpetration of dating violence.

Khrapatina, I., & Berman, P. (2017). The impact of adverse childhood experiences on health in college students. *Journal of Child & Adolescent Trauma*, 10(3), 275-287. <https://doi.org/10.1007/s40653-016-0093-0>

- Researchers examined the relationship between ACEs and both objective and subjective health in a sample of college students. Researchers found that over 75% of the sample had been exposed to at least one ACE, which is a significantly higher proportion than found in previous studies. Researchers found that ACEs and risky health behaviors were significant predictors of both objective and subjective health, but that after accounting for the effect of resilience changed this relationship.

Lau-Barraco, C., Linden-Carmichael, A. N., Braitman, A. L., & Stamatos, A. L. (2016). Identifying patterns of situational antecedents to heavy drinking among college students. *Addiction research & Theory*, 24(6), 431-440.

doi:10.3109/16066359.2016.1153077

- The current study sought to identify motivators for college students to drink and situations that are more likely to trigger high-risk drinking. Researchers acknowledge previously identified high-risk situations (unpleasant emotions, physical discomfort, pleasant emotions, testing personal control, urges and temptations to drink, conflict with others, social pressure, and pleasant times with others) and motives (coping, conformity, social, and enhancement) that may trigger drinking. Participants were college students that had engaged in at least 2 heavy drinking episodes in the past month. Two separate questionnaires were used to assess students' drinking situations and motives to drink. Mental health symptoms, alcohol consumption, and problems related to alcohol were also assessed. Results show that students reporting the greatest likelihood of heavy drinking had the most alcohol-related problems, were more coping- and conformity-motivated to drink, and reported more mental health symptoms than students that had a moderate or low likelihood of heavy drinking.

Leitenberg, H., Gibson, L. E., & Novy, P. L. (2004). Individual differences among undergraduate women in methods of coping with stressful events: The impact of cumulative childhood stressors and abuse. *Child Abuse & Neglect*, 28(2), 181–192.

doi:10.1016/j.chiabu.2003.08.005

- Objective: The purpose of the current study was to determine if a history of greater exposure to different types of adverse and/or abusive experiences in childhood would influence coping strategies used by undergraduate women to deal with new stressful events in young adulthood.
- Method: A sample of 828 women undergraduates from a New England state university participated in this questionnaire study. Disengagement and engagement coping strategies used in response to recent stressors were compared in groups who had none, one, two, or three or more types of adverse and/or abusive childhood experiences (sexual abuse, physical abuse, witnessing domestic violence, having an alcoholic parent, and parental rejection).
- Results: There was an increased reliance on disengagement methods of coping (wishful thinking, problem avoidance, social withdrawal, and self-criticism) as a function of more extensive child abuse histories. Engagement methods of coping (problem solving, cognitive restructuring, social support, and express-emotions), however, did not show a corresponding decrease as a function of increased exposure to different types of childhood stressors and/or abuse.

- Conclusions: This study demonstrates that undergraduate women with cumulative adverse and/or abusive childhood histories are particularly at-risk of relying on maladaptive disengagement coping strategies to deal with various new stressors later in life.

Mann, M. J., Kristjansson, A. L., Sigfusdottir, I. D., & Smith, M. L. (2014). The impact of negative life events on young adolescents: Comparing the relative vulnerability of middle level, high school, and college-age students. *Research in Middle Level Education Online*, 38(2), 1-13. doi:10.1080/19404476.2014.11462115

- Researchers compared middle, high school, and college students in terms of exposure and vulnerability to negative life events, and also looked at emotional health outcomes related to these events. Results indicate that middle school students are more likely to experience negative life events than high school and college students, and that middle school students are also more likely to be vulnerable to depression, anxiety, and anger associated with these negative life events.

Masuda, A., Yamanaka, T., Hirakawa, T., Koga, Y., Minomo, R., Munemoto, T., & Tei, C. (2007). Intra-and extra-familial adverse childhood experiences and a history of childhood psychosomatic disorders among Japanese university students. *BioPsychoSocial Medicine*, 1(1), 9. doi:10.1186/1751-0759-1-9

- This study looked at the relationship between risk of psychosomatic disorders and experiencing intra- and extra-familial ACEs in a sample of Japanese college students. Emotional abuse, physical violence, negative recognition by teachers, being bullied in elementary or middle school, and illness in the household were found to increase the risk of psychosomatic disorders in this population. Female students had a higher risk of developing psychosomatic disorders than males.

McGavock, L., & Spratt, T. (2012). Prevalence of adverse childhood experiences in a university population: Associations with use of social services. *British Journal of Social Work*, 44(3), 657-674. doi:10.1093/bjsw/bcs127

- This was the first study in the UK to look at the prevalence of multiple types of trauma in college students using the ACE questionnaire. Researchers looked at the relationship between ACEs and the use of social services in college students. About 12% of students in the sample reported experiencing at least 4 ACEs. Results show that students with higher ACE scores are more likely to come into contact with social service providers.

Mortier, P., Demyttenaere, K., Auerbach, R. P., Cuijpers, P., Green, J. G., Kiekens, G., ... & Bruffaerts, R. (2017). First onset of suicidal thoughts and behaviours in college. *Journal of Affective Disorders*, 207, 291-299. doi:10.1016/j.jad.2016.09.033

- Researchers point out the vulnerability of college students to suicidal thoughts and behaviors. Early risk factors for these behaviors, including childhood trauma,

were explored. Researchers found that childhood trauma is very closely related to suicidal behavior, and that both prevention and intervention programs for trauma may help prevent these behaviors. Researchers found that a high percentage of students exhibited suicidal thoughts and/or behaviors, and that dating violence and betrayal experiences were most strongly related to experiencing suicidal thoughts and/or behaviors.

Morton, B. M. (2018). The grip of trauma: how trauma disrupts the academic aspirations of foster youth. *Child Abuse & Neglect*, 75, 73-81. doi:10.1016/j.chiabu.2017.04.021

- This longitudinal study followed the college experiences of youth in foster care. The youth participating in the study had histories of trauma and mental health diagnoses. Due to having a history of trauma, foster care youth in college face a unique set of challenges that impact their college experience. Thus it may be beneficial to identify some of these barriers in order to better serve this population, as only about half of foster care youth in college are able to successfully obtain an undergraduate degree. Mental health and trauma were identified as significant challenges for foster care youth in college.

Myers, M.T. (2018, January 08). Let's end hazing deaths now. *The Chronicle of Higher Education*. Retrieved from

<https://www.chronicle.com/article/Let-s-End-Hazing-Deaths-Now/242187>

- This news article discusses the issue of hazing on college campuses. It discusses the dilemma of university administrators in deciding how to handle incidents of hazing and challenges the idea that fraternities must include hazing in initiating new members. Furthermore, the author stresses the importance of fraternities being inclusive in accepting members.

Peltzer, K., Yi, S., & Pengpid, S. (2017). Suicidal behaviors and associated factors among university students in six countries in the Association of Southeast Asian Nations (ASEAN). *Asian Journal of Psychiatry*, 26, 32-38. doi:10.1016/j.ajp.2017.01.019

- This study focused on the prevalence of and factors associated with suicidal ideation and suicide attempts in college students in countries in the Association of Southeast Asian Nations. Living with one's parents was associated with suicidal ideation. Depressive symptoms were strongly related to both suicidal ideation and attempts. Adverse childhood experiences were strongly associated with both suicidal ideation and attempts. Obesity was associated with suicide attempts, but not suicidal ideation.

Prewitt, E. (2017, July 14). Bipartisan trauma resolution introduced in U.S. House of Representatives [Blog post]. Retrieved from

<http://www.acesconnection.com/blog/bi-partisan-trauma-resolution-introduced-in-the-house-july-13>

- A bipartisan resolution “Recognizing the importance and effectiveness of trauma-informed care” (H. Res. 443) was introduced in the U.S. House of Representatives on July 13 by Mike Gallagher (R-WI) and co-sponsor Danny K. Davis (D-IL). The impetus for the resolution resides with the First Lady of Wisconsin, Tonette Walker, who has taken a strong leadership role in advancing trauma-informed policy and practice statewide through Fostering Futures and of late with the new Administration, meeting with several members of the Trump Cabinet. The resolution (attached) is an educational or messaging vehicle, not a bill that authorizes a program or mandates a specific action. Nevertheless, it is significant in that it is the first trauma-specific bill to be initiated by a Republican in the House with Democratic support. The resolution’s co-sponsor, Rep. Davis, is the sponsor of the Trauma-Informed Care for Children and Families Act (H.R. 1757), the House companion bill to S. 774, introduced by Senator Heidi Heitkamp (D-ND) and Senator Dick Durbin (D-IL). This comprehensive bill authorizes new programs and funding for an array of new initiatives related to trauma, as reported in ACEsTooHigh.com.

Ramsawh, H. J., Ancoli-Israel, S., Sullivan, S. G., Hitchcock, C. A., & Stein, M. B. (2011). Neuroticism mediates the relationship between childhood adversity and adult sleep quality. *Behavioral Sleep Medicine, 9*(3), 130-143.

doi: 10.1080/15402002.2011.583895

- Researchers tested the relationship between ACEs and sleep quality in college students. Researchers also looked to see if the presence of neuroticism impacted this relationship. Results indicate that there is a significant relationship between quality of sleep and ACEs (more ACEs predicted lower sleep quality), and this relationship is stronger in men than women.

Reilly, R. C., & D'Amico, M. (2011). Mentoring undergraduate university women survivors of childhood abuse and intimate partner violence. *Journal of College Student Development, 52*(4), 409-424. doi:10.1353/csd.2011.0046

- This study looked at the role of mentoring in the lives of college women that had experienced childhood trauma via an analysis of students’ personal stories. Four types of mentors were shown to benefit the women in this analysis. Fantasy, or fictional, mentors helped students to connect to someone when there was no one available in reality. Mentors that mirrored an unknown competence, ability, or strength were identified as helpful, as were mentors that were nurturing and supportive. The final type of beneficial mentor identified was that which helped students in terms of their education and/or career.

Sedlacek, D., Stevenson, S., Kray, C., Henson, T., Burrows, C., & Rosenboom, M. N. (2015). The impact of a history of childhood abuse on life as a college student. *Journal*

*of Research on Christian Education*, 24(2), 169-184.

doi:10.1080/10656219.2015.1052601

- Researchers looked at the effects of childhood trauma on college students in terms of emotional distress, relationship distress, addictive behavior, spiritual distress, academic struggles, and self-indulgence. Abuse was categorized as emotional, physical, sexual, and spiritual. The percentage of students reporting abuse was less than the rate found in the original ACE study. Findings also show that all kinds of abuse analyzed were correlated with all types of impacts analyzed.

Smyth, J. M., Hockemeyer, J. R., Heron, K. E., Wonderlich, S. A., & Pennebaker, J. W. (2008). Prevalence, type, disclosure, and severity of adverse life events in college students. *Journal of American College Health*, 57(1), 69–76.

doi:10.3200/JACH.57.1.69-76

- Some information on the prevalence of adverse life experiences is available for the general population and college students, but the extent, nature, and severity of these events is unclear. PARTICIPANTS: The authors recruited undergraduate college students (N = 6,053) from diverse academic settings (public and private schools) and geographic locations. They examined the prevalence, nature, severity, and disclosure of adverse events, in addition to reports of posttraumatic stress disorder (PTSD) symptomatology within the sample. RESULTS: Across multiple studies, prevalence rates of adverse events ranged from 55.8% to 84.5%, replicating previous findings in larger samples. In a subset of undergraduate students (n = 97) who the authors interviewed in greater depth, 9% reported symptoms of clinical PTSD and an additional 11% reported subclinical symptoms. CONCLUSIONS: Research using college samples for the study of stressful life events is a useful and reasonable strategy. The authors discuss implications for research, as well as screening and referral services at universities.

Strait, J., & Bolman, T. (2017). Consideration of personal adverse childhood experiences during implementation of trauma-informed care curriculum in graduate health programs. *The Permanente Journal*, 21, 16-061. doi:10.7812/TPP/16-061

- In this study, a trauma-informed curriculum was implemented in graduate health programs to determine students' willingness to understand and address ACEs. The study also sought to determine whether there was a relationship between the students' individual ACE scores and their attitudes towards trauma-informed care and ACEs. These were assessed via surveys administered before and after the program was implemented. The study found that students who voluntarily assessed their ACE scores were more likely to understand the findings of the ACE study and trauma-informed care.

Stone, A. L., Becker, L. G., Huber, A. M., & Catalano, R. F. (2012). Review of risk and protective factors of substance use and problem use in emerging adulthood. *Addictive Behaviors, 37*(7), 747-775. doi:10.1016/j.addbeh.2012.02.014

- This article provides a literature review on the risk and protective factors in young adult alcohol and drug use. The article begins by providing information on the issue of drug and alcohol use in adolescents and young adults, then continues on to discuss the risk and protective factors for drug and alcohol use that the authors identified in the study. The types of risk factors identified by the study include personal, family, biological, and social and environmental factors. The authors conclude that many of the risk factors involved in young adult substance use are the same as those for adolescents, but that young adults have some risk factors that are unique to their age group (e.g., moving away from home for college).

Thompson, C., & Schwartz, P. J. (2014). A new normal: Young men of color, trauma, and engagement in learning. *New Directions for Adult and Continuing Education, 2014*(144), 49-58. <https://doi.org/10.1002/ace.20113>

- The purpose of this article is to illustrate for college educators the impact that trauma has on black male college students. Researchers found that many black and Latino students come to college with a history of trauma that they see as “normal”. Students share personal stories about their experiences with trauma. Ways that educators can approach this population are outlined.

Thomas, J. T. (2016). Adverse childhood experiences among MSW students. *Journal of Teaching in Social Work, 36*(3), 235-255. doi:10.1080/08841233.2016.1182609

- Alarming rates of burnout, compassion fatigue, and turnover in the social work profession have focused attention on factors influencing risk and resilience among professional social workers and, more recently, social work students. This article explores the prevalence and relevance of early trauma among social work students and describes a cross-sectional, exploratory study aimed at determining frequency of adverse childhood experiences among Master of Social Work (MSW) students. Results reveal rates of adverse childhood experiences are much higher than those found in general population samples, university students, and child welfare employees. Implications for social work education are discussed.

Tuliao, A. P., Jaffe, A. E., & McChargue, D. E. (2016). Alcohol expectancies, posttraumatic stress disorder, and alcohol use in college students with a history of childhood trauma. *Journal of Dual Diagnosis, 12*(1), 4-14.

doi:10.1080/15504263.2016.1146382

- Researchers explored the relationship between PTSD, alcohol use, and childhood trauma in a sample of college students. The role of outcome

expectancies of alcohol use in this relationship was also examined. Researchers found that students with symptoms of PTSD that believed alcohol use would reduce tension were more likely to use alcohol excessively, but not necessarily to cope with symptoms of PTSD.

Turner, J., Bauerle J., & Keller, A. (2011). Alcohol-related vehicular death rates for college students in the Commonwealth of Virginia. *Journal of American College Health*, 59(4), 323-326. doi:10.1080/07448481.2010.502200

- Objective: Determine rate of college student alcohol-related vehicular traffic fatalities in Virginia during 2007. Participants: Undergraduates at colleges and universities in Virginia.
- Methods: Institutions with membership in the American College Health Association were invited to participate in a survey. Data collected from institutional reports of student deaths due to vehicular accidents.
- Results: Twenty-four institutions were invited to participate. Sixteen responded (response rate = 67%), comprising total enrollment of 117,100 for 17- to 24-year-olds (56% of total college population in state). Five traffic deaths were reported, representing 4.3 deaths per 100,000 students. Based on statewide statistics that estimate alcohol contributes to 38.9% of traffic deaths, rate of alcohol-related motor vehicle deaths is 1.7 deaths per 100,000 college students in Virginia, which is 89% lower than leading national estimates.
- Conclusions: These findings suggest that past estimates of alcohol-related vehicular deaths among college students are overstated.

Vrana, S. & Lauterbach, D. (1994). Prevalence of traumatic events and post-traumatic psychological symptoms in a nonclinical sample of college students. *Journal of Traumatic Stress*, 7(2), 289–302. <https://doi.org/10.1002/jts.2490070209>

- The lifetime prevalence of traumatic events and their psychological impact were assessed in 440 undergraduate students. Eighty-four percent of the subjects reported experiencing at least one event of sufficient intensity potentially to elicit Post-Traumatic Stress Disorder (PTSD). One-third of the sample had experienced four or more traumatic events. Subjects who had experienced trauma reported higher levels of depression, anxiety, and PTSD symptomatology than nontraumatized subjects, and these symptoms were more intense in subjects who experienced multiple traumas. Events that were particularly negative in their impact included unwanted sexual experiences and events that subjects reported were too traumatic to discuss openly. Males and females differed in their probability of experiencing some types of events and in the psychological response to certain events.

Weltz, S. M., Armeli, S., Ford, J. D., & Tennen, H. (2016). A daily process examination of the relationship between childhood trauma and stress-reactivity. *Child abuse & Neglect*, 60, 1-9. doi:10.1016/j.chiabu.2016.08.005

- Researchers conducted a longitudinal study with college students to look at the impact of interpersonal childhood trauma (i.e., emotional abuse and neglect) on daily stress and negative mood. Results show that students reporting higher levels of childhood trauma showed displayed negative mood as a reaction to daily stress. Researchers found that emotional abuse moderated this relationship, but that students that experienced neglect moderated the stress-anxiety relationship in the opposite direction.

Zeid, D., Carter, J., & Lindberg, M. A. (2018). Comparisons of alcohol and drug dependence in terms of attachments and clinical issues. *Substance Use & Misuse*, 53(1), 1-8. <https://doi.org/10.1080/10826084.2017.1319865>

- Researchers conducted 2 separate studies in order to examine the relationship between drug and alcohol dependencies and attachment patterns and clinical treatment. The second study was conducted with college students and measured students' ACE scores. The second study's results were consistent with those of the first study, and found that ACE score was related to substance abuse, and attachment. Results indicate that using 2 screening measures at once is more effective than one or the other, and that different types of substance abuse ,ay have similar developmental histories and underlying attachment and clinical issues.

Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2009). Persistence of mental health problems and need in a college student population. *Journal of Affective Disorders*, 117(3), 180-185. doi:10.1016/j.jad.2009.01.001

- Cross-sectional studies indicate a high prevalence of mental health problems among college students, but there are fewer longitudinal data on these problems and related help-seeking behavior. We conducted a baseline web-based survey of students attending a large public university in fall 2005 and a two-year follow-up survey in fall 2007. We used brief screening instruments to measure symptoms of mental disorders (anxiety, depression, eating disorders), as well as self-injury and suicidal ideation. We estimated the persistence of these mental health problems between the two time points, and determined to what extent students with mental health problems perceived a need for or used mental health services (medication or therapy). We conducted logistic regression analyses examining how baseline predictors were associated with mental health and help-seeking two years later. Over half of students suffered from at least one mental health problem at baseline or follow-up. Among students with at least one mental health problem at baseline, 60% had at least one mental health problem

two years later. Among students with a mental health problem at both time points, fewer than half received treatment between those time points. Mental health problems are based on self-report to brief screens, and the sample is from a single university. These findings indicate that mental disorders are prevalent and persistent in a student population. While the majority of students with probable disorders are aware of the need for treatment, most of these students do not receive treatment, even over a two-year period.

## Juvenile Delinquency

Baglivio, M. T., & Epps, N. (2015). The interrelatedness of adverse childhood experiences among high-risk juvenile offenders. *Youth Violence and Juvenile Justice*, 14(3), 179-198. <http://dx.doi.org/10.1177/1541204014566286>

- This study shows that ACEs are interrelated, and there needs to be an assessment of multiple ACEs at a time to understand how many ACEs a child has experiences and the impact they have on children. This study concluded that juvenile offenders generally have been exposed to more than one ACE. Out of the youths who have experiences ACEs, 67.5% of them claim to have experiences four or more ACES, and 24.5% of them claim to have experiences six or more ACEs. Females experience a higher prevalence of ACEs, and for experiencing multiple ACEs.

Baglivio, M. T., Epps, N., Swartz, K., Huq, M. S., Sheer, A., & Hardt, N. S. (2014). The prevalence of adverse childhood experiences (ACE) in the lives of juvenile offenders. *Journal of Juvenile Justice*, 3(2), 1-23. Retrieved from <https://www.ncjrs.gov/pdffiles/246951.pdf>

- This study evaluates the prevalence of ACEs in juveniles lives in Florida and compares them to an ACE study conducted with adults. It is concluded that offenders receive distinguishingly higher ACEs scores. This supports the need for early screening, so intervention for individuals at higher risk for offending can take place soon.

Baglivio, M. T., Wolff, K. T., Piquero, A. R., & Epps, N. (2015). The relationship between adverse childhood experiences (ACE) and juvenile offending trajectories in a juvenile offender sample. *Journal Of Criminal Justice*, 43(3), 229-241.

doi:10.1016/j.jcrimjus.2015.04.012

- “Purpose: Adverse childhood experiences have been identified as a key risk factor for offending and victimization, respectively. At the same time, the extent to which such experiences distinguish between unique groups of offenders who vary in their longitudinal offending patterns remains an open question, one that is pertinent to both theoretical and policy-related issues. This study examines the

relationship between adverse childhood experiences for distinguishing offending patterns through late adolescence in a large sample of adjudicated juvenile offenders.

- Methods: The current study uses data from 64,000 adjudicated juvenile offenders in the State of Florida. We use Semi-Parametric Group-Based Method (SPGM) to identify different latent groups of official offending trajectories based on individual variation over time from ages 7 to 17. Multinomial logistic regression was used to examine which measures, including the ACE score, distinguished between trajectory groups.
- Results: Findings indicate five latent trajectory offending groups of offending through age 17 and that increased exposure to multiple Adverse Childhood Experiences distinguishes early-onset and chronic offending from other patterns of offending, net of several controls across demographic, individual risk, familial risk, and personal history domains.
- Conclusions: Childhood maltreatment as measured by the cumulative stressor Adverse Childhood Experiences score influences official offending trajectories.”  
[Abstract from Author]

Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs*, 33(12), 2106-2115.

<http://dx.doi.org/10.1377/hlthaff.2014.0914>

- Children who have experiences ACEs generally have lower school engagement and higher rates of chronic disease. However, if a child demonstrates resilience they are more likely to have higher rates of school engagement. Children who received well rounded, family-centered care were found to have higher rates of resilience.

Branson, C. E., Baetz, C. L., Horwitz, S. M., & Hoagwood, K. E. (2017).

Trauma-informed juvenile justice systems: A systematic review of definitions and core components. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(6), 635-646. doi:10.1037/tra0000255

- The researchers reviewed the literature to find the most commonly identified components of trauma-informed care in the juvenile justice system. Researchers point out the negative impact that ACEs have on those involved in the juvenile justice system, such as higher recidivism rates. Researchers found that the publications' recommendations include screening youth for trauma, doing a mental health assessment on youth that screen positive for trauma, use evidence-based mental health interventions, address the needs of diverse youth, provide education and resources to youths' families, create a safe environment for youth, and train all staff in trauma-informed care.

Crane, M. G. (2017). Childhood trauma's lurking presence in the juvenile interrogation room and the need for a trauma-informed voluntariness test for juvenile confessions. *South Dakota Law Review*, 62(3), 626-672. Retrieved from <https://www.questia.com/read/1G1-523137272/childhood-trauma-s-lurking-presence-in-the-juvenile>

- This article talks about the need for research on adverse childhood traumas and how it affects a juvenile in the interrogation room. Children who have experienced ACEs are more vulnerable in the interrogation room, and can be coerced, mentally and physically, into admitting a false confession. To assure the fair treatment of juveniles in the justice system knowledge about possible ACEs needs to be present.

Fox, B. H., Perez, N., Cass, E., Baglivio, M. T., & Epps, N. (2015). Trauma changes everything: Examining the relationship between adverse childhood experiences and serious, violent and chronic juvenile offenders. *Child Abuse & Neglect*, 46, 163-173. doi:10.1016/j.chiabu.2015.01.011

- This study evaluates the effectiveness of utilizing the presents of ACEs as a preliminary screening tool, in order to identify children at risk for becoming serious, violent, and chronic offenders. Children who have experienced ACEs are at a higher risk to become juvenile offenders. The more ACEs a child faces the more likely they are to commit more serious, violent, and chronic crimes.

The Illinois ACEs Response Collaborative. (n.d.). *Justice brief: Juvenile and criminal justice systems*. Retrieved from

<http://www.hmprg.org/assets/root/ACEs/Justice%20Policy%20Brief.pdf>

- This article speaks about the impact and prevalence of ACEs on juveniles and adults. Approximately two thirds of the US adult population has experienced at least one ACE. ACEs can increase the risk of offending and reoffending in juveniles. This article also goes on to discuss the impact of incarceration on juveniles and alternatives to incarceration, such as restoration and intervention programs for youths. There are also policy recommendations to mitigate and counter the impact of ACEs on juveniles and the criminal justice system.

Perez, N. M. (2016). *The path to violent behavior: The harmful aftermath of childhood trauma*. Retrieved from

<https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=7325&context=etd>

- This study shows the impact of ACEs on children, how the ACEs impact internal and external violence within the lives of children. The study evaluates how it manifests both directly and indirectly through their behaviors and personalities. The aim of the study is to contribute an informed understanding of the role of ACEs in internal and external violence, so the assessment and treatment of children who have experiences ACEs can be improved.

Shlafer R. J. , Gerrity E., Ruhland E., & Wheeler, M. (2013). Children with incarcerated parents: Considering children's outcomes in the context of family experiences. *University of Minnesota Extension: Children, Youth and Family Consortium*. Retrieved from

<https://conservancy.umn.edu/bitstream/handle/11299/151818/ChildrenwithIncarceratedParentsJune2013ereview.pdf?sequence=1&isAllowed=y>

- This report explains that children with incarcerated parents are at increased risk for behavioral problems, cognitive delays, difficulties in school, etc. The report include policy and practice recommendations and states the importance of evidence based practices and intervention.

## Children and Teens

Birn, R. M., Roeber, B. J., & Pollak, S. D. (2017). Early childhood stress exposure, reward pathways, and adult decision making. *Proceedings of the National Academy of Sciences of The United States of America*, 114(51), 13549-13354.

<https://doi.org/10.1073/pnas.1708791114>

- Using a sample of elementary school children, researchers measured life circumstances to assess life stress, then selected those from the sample with the highest and lowest stress levels to return ten years later to reassess their life circumstances, obtain fMRI data, and test their judgement and decision-making abilities. Researchers found that those that had experienced high levels of stress in childhood were slower to respond on a gambling task performed in the research lab, and made poorer decisions during this task. The fMRI results of the high childhood stress group showed reduced activity levels in parts of the brain when presented with cues that could help them predict rewards and losses. These effects were predicted by early childhood stress levels, but not by participants' current stress levels. The results of the study indicate that children that experience stress in childhood may have issues using environmental cues that signal rewards and losses as adults.

Clarkson Freeman, P. A. (2014). Prevalence and relationship between adverse and childhood experiences and child behavior among young children. *Infant Mental Health Journal*, 35(6), 544-554. doi:10.1002/imhj.21460

- "Exposure to adverse childhood experiences (ACEs) such as child abuse and neglect impact a child's socioemotional development. Drawing from the methods employed in the Adverse Childhood Experiences (ACE; Felitti et al., ) Study, the present study utilized data from the National Survey of Child and Adolescent Well-Being to examine the prevalence of ACEs among children birth to 6 years, and the relationship of ACEs to emotional and behavioral outcomes 59 to 97

months after the close of investigation or assessment. Logistic regression also was used to examine the cumulative impact of ACEs on child behavior outcomes. By the age of 6, approximately 70% of children experienced three or more ACEs, and there were strong relationships between ACEs. Numerous ACEs were associated with long-term behavioral problems, and results supported a dose-response effect. Three or greater ACEs more than quadrupled the risk of experiencing internalizing problems, and almost quadrupled the risk of experiencing either externalizing or total problems at 59 to 97 months' post-investigation. Based on these findings, it is crucial for both early screening/assessment and increased collaboration between child welfare and early intervention programs." [ABSTRACT FROM AUTHOR]

Figlio, D. N., Freese, J., Karbownik, K., & Roth, J. (2017). Socioeconomic status and genetic influences on cognitive development. *Proceedings of the National Academy of Sciences of the United States of America*, 114(51), 13441-13446.

<https://doi.org/10.1073/pnas.1708491114>

- Researchers sought to understand the effects of genes and the environment on children's cognitive development. This was done by looking at school and birth records of siblings and twins in Florida. Researchers tested the hypothesis that genetics would play a larger role than the environment in cognitive development for children of higher socioeconomic status. Researchers found that as socioeconomic status increased, genetic influence did not increase, indicating that the nature of the gene-environment interaction on cognitive development is not as clear as was previously believed.

Finkelhor, D., Turner, H., Shattuck, A., Hamby, S. & Kracke, K. (2015). "Children's exposure to violence, crime, and abuse: An update." *Office of Juvenile Justice and Delinquency Prevention*. Retrieved from <https://www.ojjdp.gov/pubs/248547.pdf>

- The National Survey of Children's Exposure to Violence (NatSCEV) is the most comprehensive nationwide survey of the incidence and prevalence of children's exposure to violence to date. The Office of Juvenile Justice and Delinquency Prevention (OJJDP) has sponsored NatSCEV with support from the Centers for Disease Control and Prevention (CDC). OJJDP has administered NatSCEV three times through data collections in 2008 (NatSCEV I), 2011 (NatSCEV II), and 2014 (NatSCEV III). NatSCEV has produced national estimates on sensitive topics (direct victimization and indirect violence) with data collected from a hard-to-reach, vulnerable population. It measures the past-year and lifetime exposure to violence for children age 17 and younger across several major categories: conventional crime, child maltreatment, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization (including

exposure to community violence and family violence), school violence and threats, and Internet victimization.

- This bulletin discusses the second National Survey of Children's Exposure to Violence (NatSCEV II), which was conducted in 2011 as a followup to the original NatSCEV I survey conducted in 2008. OJJDP and the Centers for Disease Control and Prevention sponsored both surveys. The NatSCEV II survey confirmed NatSCEV I's finding that children's exposure to violence is common; nearly 60 percent of the sample (57.7 percent) had been exposed to violence in the past year, and more than 1 in 10 reported 5 or more exposures. This exposure occurs across all age ranges of childhood and for both genders.

Finkelhor D., Turner H. A., Shattuck A., & Hamby S. L. (2015). Prevalence of childhood exposure to violence, crime, and abuse: Results from the National Survey of Children's Exposure to Violence (NatSCEV). *JAMA Pediatrics*, 169(8), 746–754.

doi:10.1001/jamapediatrics.2015.0676

- Importance: It is important to estimate the burden of and trends for violence, crime, and abuse in the lives of children.
- Objective: To provide health care professionals, policy makers, and parents with current estimates of exposure to violence, crime, and abuse across childhood and at different developmental stages.
- Design, Setting, and Participants: The National Survey of Children's Exposure to Violence (NatSCEV) includes a representative sample of US telephone numbers from August 28, 2013, to April 30, 2014. Via telephone interviews, information was obtained on 4000 children 0 to 17 years old, with information about exposure to violence, crime, and abuse provided by youth 10 to 17 years old and by caregivers for children 0 to 9 years old.
- Main Outcome and Measure: Exposure to violence, crime, and abuse using the Juvenile Victimization Questionnaire.
- Results: In total, 37.3% of youth experienced a physical assault in the study year, and 9.3% of youth experienced an assault-related injury. Two percent of girls experienced sexual assault or sexual abuse in the study year, while the rate was 4.6% for girls 14 to 17 years old. Overall, 15.2% of children and youth experienced maltreatment by a caregiver, including 5.0% who experienced physical abuse. In total, 5.8% witnessed an assault between parents. Only 2 significant rate changes could be detected compared with the last survey in 2011, namely, declines in past-year exposure to dating violence and lifetime exposure to household theft.
- Conclusions and Relevance: Children and youth are exposed to violence, abuse, and crime in varied and extensive ways, which justifies continued monitoring and prevention efforts.

Forster, M., Gower, A. L., Borowsky, I. W., & McMorris, B. J. (2017). Associations between adverse childhood experiences, student-teacher relationships, and non-medical use of prescription medications among adolescents. *Addictive behaviors*, 68, 30-34. doi:10.1016/j.addbeh.2017.01.004

- Researchers point out the increased prevalence of prescription drug abuse and overdose in young people. Researchers found that youth with at least one ACE were more likely to misuse prescription drugs than the general population. Researchers point out that this effect may be due to the negative effects of ACEs on the brain and thus mood and self-regulation. Researchers also found that healthy relationships between teachers and students can help offset the negative impact of a harmful family environment on prescription drug abuse.

Grasso, D. J., Dierkhising, C. B., Branson, C. E., Ford, J. D., & Lee, R. (2016). Developmental patterns of adverse childhood experiences and current symptoms and impairment in youth referred for trauma-specific services. *Journal Of Abnormal Child Psychology*, 44(5), 871-886. doi:10.1007/s10802-015-0086-8

- “By the time children reach adolescence, most have experienced at least one type of severe adversity and many have been exposed to multiple types. However, whether patterns of adverse childhood experiences are consistent or change across developmental epochs in childhood is not known. Retrospective reports of adverse potentially traumatic childhood experiences in 3 distinct developmental epochs (early childhood, 0- to 5-years-old; middle childhood, 6- to 12-years-old; and adolescence, 13- to 18-years-old) were obtained from adolescents (N = 3485) referred to providers in the National Child Traumatic Stress Network (NCTSN) for trauma-focused assessment and treatment. Results from latent class analysis (LCA) revealed increasingly complex patterns of adverse/traumatic experiences in middle childhood and adolescence compared to early childhood. Depending upon the specific developmental epoch assessed, different patterns of adverse/traumatic experiences were associated with gender and with adolescent psychopathology (e.g., internalizing/externalizing behavior problems), and juvenile justice involvement. A multiply exposed subgroup that had severe problems in adolescence was evident in each of the 3 epochs, but their specific types of adverse/traumatic experiences differed depending upon the developmental epoch. Implications for research and clinical practice are identified.” [ABSTRACT FROM AUTHOR]

Solemanpour, S., Geierstanger, S., & Brindis, C. (2017). Adverse childhood experiences and resilience: Addressing the unique needs of adolescents. *Academic Pediatrics*, 17(7S), 108-114. doi:10.1016/j.acap.2017.01.008

- Adolescents exposed to **adverse childhood experiences** (ACEs) have unique developmental needs that must be addressed by the health, education, and

social welfare systems that serve them. Nationwide, over half of adolescents have reportedly been exposed to ACEs. This exposure can have detrimental effects, including increased risk for learning and behavioral issues and suicidal ideation. In response, clinical and community systems need to carefully plan and coordinate services to support adolescents who have been exposed to ACEs, with a particular focus on special populations. We discuss how adolescents' needs can be met, including considering confidentiality concerns and emerging independence; tailoring and testing screening tools for specific use with adolescents; identifying effective multipronged and cross-system trauma-informed interventions; and advocating for improved policies. [ABSTRACT FROM AUTHOR]

## Latino/Hispanic

Alcántara, C., Casement, M. D., & Lewis-Fernández, R. (2013). Conditional risk for PTSD among Latinos: A systematic review of racial/ethnic differences and sociocultural explanations. *Clinical Psychology Review, 33*(1), 107–119.

doi:10.1016/j.cpr.2012.10.005.

- Review of 28 articles on PTSD risk in Latinos found: Higher risk of PTSD onset (or PTSD symptoms) and higher PTSD severity, after exposure to traumatic events among Latinos than non-Latinos. These studies included traumas such as Vietnam War combat, 9/11, community violence, and police service.

Allem, J. P., Soto, D. W., Baezconde-Garbanati, L., & Unger J. B. (2015). Adverse childhood experiences and substance use among Hispanic emerging adults in Southern California. *Addictive Behaviors, 50*, 199-204. doi: 10.1016/j.addbeh.2015.06.038.

- Substance use in emerging adulthood is prevalent and can undermine optimal development
- Hispanics are a priority population for substance use prevention.
- Emerging Hispanic adults who experienced stressful childhoods may engage in substance use as maladaptive coping strategies in order to avoid negative emotions.
- When faced with overwhelming situations, especially situations out of the control of the child, it may be an automatic response for the child to disassociate (emotionally detach from the immediate surroundings).
- When mechanisms like disassociation are repeatedly used as a defense in order to shut out affective responses to events or people, there are direct consequences on child development.

- One such consequence is the inability to form a secure attachment with a caregiver or parent (biological urge to turn to them for comfort), which may be the biological preamble for processes like intimacy and emotional regulation
- One specific requisite for secure attachment is the sense of safety. If the child feels safe, secure attachment can develop, as well as intimacy and the capacity for emotional regulation.
- When ACEs are present, the ability to form secure attachment, and subsequently the ability to regulate emotions is curbed.
- With an impaired ability to regulate emotions, individuals may engage in substance use or other maladaptive behaviors in order to cope with the adverse health effects of trauma.
- Prevention programs could focus on emotional regulation and/or cognitive restructuring, and the development of coping skills that address the distress associated with the problematic relationships and behaviors within the family.
- Prevention programs should emphasize coping skills, mindfulness and social support while helping emerging adults learn how to address the consequences of childhood victimization and trauma.

Asnaani, A. & Hall-Clark, B. (2017). Recent developments in understanding ethnocultural and race differences in trauma exposure and PTSD. *Current Opinion in Psychology*, 14, 96-101. <https://doi.org/10.1016/j.copsyc.2016.12.005>.

- Large epidemiological studies suggest that not only do racial minority groups (particularly African Americans) experience more discrimination, but also that higher levels of perceived discrimination are associated with more likely PTSD diagnosis or greater severity of PTSD.
- Recent empirical data in the past 5 years suggests that in the U.S., African Americans, Latino Americans and Native Americans tend to present with the highest rates of PTSD, while Asian Americans tend to present with the lowest.
- It is important to consider factors such as stigma, acculturation, and discrimination when interpreting expression of PTSD symptoms in ethnic minority groups, and in treatment, such as the format (online interventions to overcome stigma) or the content (acknowledging discrimination explicitly).

Contractor, A. A., Brown, L. A., & Weiss, N.H. (2018). Relation between lifespan polytrauma typologies and post-trauma mental health. *Comprehensive Psychiatry*, 80, 202-213. doi: 10.1016/j.comppsy.2017.10.005.

- Researchers suggest that if a person is subjected to a high number of traumatic incidents, it may lower the threshold for emotional, behavioral and physiological reactions to later adverse situations.
- Latinos are more likely to experience higher levels of trauma, trauma of an interpersonal nature (such as childhood physical and sexual abuse), which are

the type which lead to the most severe mental health symptoms (greater depression, attachment difficulties, relationship difficulties, greater avoidance, greater intrusion symptoms)

- Those with high levels of interpersonal trauma scored highly on scales showing high impulsivity, and difficulty completing tasks.
- Models of learned helplessness suggest this lack of perseverance is associated with repeated trauma that was out of the control of the victim (was a coping mechanism of sorts).
- Engagement in impulsive behaviors may serve a functional role for a trauma-exposed person – it may reduce the intensity of the negative emotions & explain the association between chronic trauma exposure and substance use.
- They need more preventative care, clinical services, and allocation of mental health resources, including trauma-focused treatments (targeting PTSD severity), and emotional regulation interventions (targeting tendency to engage in impulsive behaviors).

Hall-Clark, B.N., Kaczurkin, A. N., Asnaani, A., Zhong, J., Peterson, A.L., Yarvis, J. S., ... & Foa, E. B. (2017). Ethnoracial differences in PTSD symptoms and trauma-related cognitions in treatment-seeking active duty military personnel for PTSD. *Psychological Trauma-Theory Research Practice and Policy*, 9(6), 741-745. doi: 10.1037/tra0000242.

- Hispanic/Latino and African American participants reported more re-experiencing symptoms, more fear, and more guilt and numbing than White participants.
- Hispanic/Latino and African American participants were more likely to cope with stressful events through rumination and putting events into perspective, and less likely to blame others (than White service members).
- Hispanic/Latinos and African American participants downplayed the severity of events.
- Researchers suggested attending to cultural factors related to differences in PTSD cognitive coping strategies during assessment and treatment to improve comprehensive trauma processing.

Jaffee, S. R., Caspi, A., Moffitt, T. E., Polo-Tomas, M., & Taylor, A. (2007). Individual, family, and neighborhood factors distinguish resilient from non-resilient maltreated children: A cumulative stressors model. *Child Abuse and Neglect*, 31(3), 231–253. doi: 10.1016/j.chiabu.2006.03.011.

- In a twin study of 1,116 twin pairs and their families, behavioral resilience was studied in relation to cumulative family and neighborhood stressors (ACEs), and in relation to the individual child's characteristics.
- The child's individual strengths assisted in behavioral resiliency when the child was faced with low ACEs, but made no difference in the presence of high family and neighborhood stress.

- In a group of children who had been maltreated before age 5,
- Boys who had above average IQ and whose parents had few symptoms of antisocial personalities were more likely to show resilience.
- Children whose parents had no substance use problems and who lived in lower crime neighborhoods (which had higher social cohesion/informal social control) were more likely to show resilience.
- However, researchers concluded that for children growing up in families with multiple problems in addition to the maltreatment, the child's personal resources (high IQ, easy-going temperament) are not sufficient to promote healthy, adaptive functioning and protect them from the adverse effects of the maltreatment.

Llabre, M. M., Schneiderman, N., Gallo, L. C., Arguelles, W., Daviglius, M. L., Gonzalez, F., ... & Penedo, F. J. (2017). Childhood trauma and adult risk factors and disease in Hispanics/Latinos in the US: Results from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) Sociocultural Ancillary Study. *Psychosomatic medicine*, 79(2), 172-180. doi:10.1097/PSY.0000000000000394

- Hispanic Community Health Study is a study of over 5000 Hispanics in urban areas across the country.
- The common occurrence of ACEs in US Hispanic/Latinos is a public health concern (77% with at least 1, 28% with 4 or more).
- Association of ACEs were found with physical health issues of cancer, COPD and heart disease.
- The prevalence of a high number of ACEs (4 or more) is Hispanics/Latinos (26% male-31% female) were significantly higher than in a mostly white group (9% male-15% female).
- Individual ACE findings in Hispanic/Latino group: emotional abuse (29% male, 32% female), physical abuse (29% male, 30% female), sexual abuse (7% male, 20% female), emotional neglect (16%, 27%), physical neglect (11% male, 10% female), battered mother (19% male, 22% female), household substance abuse (27% male, 34% female), household mental illness (19% male, 23% female), household separation/divorce (male 45%, female 46%), household member in prison (male 28%, female 22%).

Mersky, J. P., Topitzes, J., & Reynolds, A. J. (2013). Impacts of adverse childhood experiences on health, mental health, and substance use in early adulthood: A cohort study of an urban minority sample in the U.S. *Child Abuse and Neglect*, 37(11), 917-925. doi: 10.1016/j.chiabu.2013.07.011

- ACEs were prevalent in the CLS (Chicago Longitudinal Sample) of urban, minority (93% African American, 7% Hispanic) young adults, with 80% of the

CLS reported at least 1 ACE, and almost 50% reporting multiple ACEs. 64% of the mostly white, older adults in the original ACEs study reported at least 1 ACE.

- ACEs contributed significantly to adult outcomes above and beyond other risk factors in the sample.
- Increased ACEs was associated with poorer overall physical health by age 24.
- The effects of ACEs on most mental and behavioral health outcomes were even larger in magnitude, and occur in early adolescence, and early adulthood.
- Mental health outcomes may act as pathways from ACEs to longer term physical health consequences.
- More adversity was associated with poorer health and life satisfaction, as well as increased depressive symptoms, anxiety, tobacco use, alcohol use, and marijuana use.
- Researchers recommended public health initiatives to prevent and ameliorate the effects of ACEs

Myers, H. F., Wyatt, G .E., Ullman, J. B., Loeb, T. B., Chin, D., Prause, N., ... & Liu, H. (2015). Cumulative burden of lifetime adversities: Trauma and mental health in low-SES African Americans and Latino/as. *Psychological Trauma-Theory Research Practice and Policy*, 7(3), 243-251. doi: 10.1037/a0039077.

- Discrimination in adulthood contributed to the lifetime burden of cumulative traumas and adversities in Latino and African American participants
- The greater the overall lifetime trauma burden, the higher the depressive symptoms among low socio-economic status Latino participants.

Rhodes, S. D., Mann, L., Simán, F. M., Song, E., Alonzo, J., Downs, M., & ... Hall, M. A. (2015). Impact of local immigration enforcement policies on the health of immigrant Hispanics/Latinos in the United States. *American Journal of Public Health*, 105, 329-37. doi: 10.2105/AJPH.2014.302218.

- Immigration policies affect the health of Hispanics/Latinos because they are less likely to utilize health services.
- Immigrants report profound fear about accessing health services for which they are eligible, because of barriers such as lack of a valid driver's license and police checkpoints.
- Some immigrants felt that these harsh immigration policies condone racist attitudes toward them in the community, which compounds distrust of available services.
- Immigrant patients may withhold critical information from health providers out of fear that law enforcement may be called

- Immigrant patients experience high stress levels which leads to compromised mental health

Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological Medicine*, 41(1), 71-83. doi: 10.1017/S0033291710000401.

- In large national survey, found higher lifetime prevalence of PTSD for Blacks (8.7%) than Whites (7.4%), Hispanics (7.0%), and Asians (4%).
- Blacks and Hispanics had higher exposure to child maltreatment, than the other groups, primarily due to exposure to domestic violence
- Asians had higher exposure to war-related violence than other groups
- All minority groups were less likely to seek treatment for PTSD
- Fewer than half (33%-42%) of minorities with PTSD sought treatment.
- Researchers concluded that when PTSD affect minorities, it usually goes untreated (reasons including stigma, not wanting to go outside family for help, perceived bias/mistrust of care providers, reduced access to mental health care in poor areas)
- There is a need for investment in accessible and culturally sensitive treatment options.

## LGBTQ+

McRae, L., Daire, A. P., Abel, E. M., & Lambie, G. W. (2017). A social learning perspective on childhood trauma and same-sex intimate partner violence. *Journal of Counseling and Development*, 95(3), 332-338. <https://doi.org/10.1002/jcad.12147>

- The family violence and childhood trauma literature has suggested that early adverse experiences create risk factors for intimate partner violence (IPV). Thus, this study used a sample of lesbian, gay, and bisexual (LGB) college students ( N = 266) to explore differences among childhood trauma, same-sex IPV, and IPV acceptance. The authors used survey methodology and multivariate analysis of variance. Results indicated that LGB individuals reporting childhood trauma also reported higher rates of IPV, suggesting implications for research and practice. [ABSTRACT FROM AUTHOR]

Zou, C., & Andersen, J. P. (201). Comparing the rate of early childhood victimization across across sexual orientations: Heterosexual, lesbian, gay, bisexual, and mostly heterosexual. *Public Library of Science One*, 10(10). doi:10.1371/journal.pone.0139198

- “Few studies have examined the rates of childhood victimization among individuals who identify as “mostly heterosexual” (MH) in comparison to other sexual orientation groups. For the present study, we utilized a more

comprehensive assessment of adverse childhood experiences to extend prior literature by examining if MH individuals' experience of victimization more closely mirrors that of sexual minority individuals or heterosexuals. Heterosexual (n = 422) and LGB (n = 561) and MH (n = 120) participants were recruited online. Respondents completed surveys about their adverse childhood experiences, both maltreatment by adults (e.g., childhood physical, emotional, and sexual abuse and childhood household dysfunction) and peer victimization (i.e., verbal and physical bullying). Specifically, MH individuals were 1.47 times more likely than heterosexuals to report childhood victimization experiences perpetrated by adults. These elevated rates were similar to LGB individuals. Results suggest that rates of victimization of MH groups are more similar to the rates found among LGBs, and are significantly higher than heterosexual groups. Our results support prior research that indicates that an MH identity falls within the umbrella of a sexual minority, yet little is known about unique challenges that this group may face in comparison to other sexual minority groups." [ABSTRACT FROM AUTHOR]

### **Ethnicity/Race Differences**

Brockie, T. N., Dana-Sacco, G., Wallen, G. R., Wilcox, H. C. and Campbell, J. C. (2015), The relationship of adverse childhood experiences to PTSD, depression, poly-drug use and suicide attempt in reservation-based Native American adolescents and young adults. *American Journal of Community Psychology*, 55(3), 411–421. doi:10.1007/s10464-015-9721-3

- This study examines the prevalence and impact of ACEs on reservation based native americans and if that affected four risk behavior/mental health outcomes. Results showed that the presence of any of the four ACEs would increase the risk of post-traumatic stress disorder (PTSD) symptoms, depression symptoms, poly-drug use, and suicide attempt. Concluding that there is a need for victim informed and culturally appropriate intervention.

Garcia, A., O'Brien, K., Kim, M., Pecora, P., Harachi, T., & Aisenberg, E. (2015). Adverse childhood experiences and poor mental health outcomes among racially diverse foster care alumni: Impact of perceived agency helpfulness. *Journal Of Child & Family Studies*, 24(11), 3293-3305. doi:10.1007/s10826-015-0132-8

- "The etiology of poor mental health outcomes among foster care alumni of color remains largely unknown. We examined the influence of a subset of adverse childhood experiences (ACEs), placement instability, and childhood disability in uniquely predicting mental health outcomes among racially diverse foster care alumni from a private foster care agency. Multiple group path modeling was used

to examine direct and indirect relationships between the individual level risk factors, mediators (perceived agency helpfulness), and past-year psychiatric disorder. Results showed that while the overall model was moderated by race/ethnicity, no significant group differences occurred in which ACEs increased the likelihood of psychiatric diagnoses. However, there were racial/ethnic differences in whether perceived agency helpfulness mediated the relationship between a subset of ACEs and diagnosis with a psychiatric disorder. Implications for future research to inform the development and implementation of effective services and supports that can promote positive developmental outcomes among racially diverse alumni are discussed.” [ABSTRACT FROM AUTHOR]

Henderson, A. K. (2016). The long arm of religion: Childhood adversity, religion, and self-perception among black Americans. *Journal for the Scientific Study of Religion*, 55(2), 324-348. <https://doi.org/10.1111/jssr.12262>

- “Significant associations between childhood adversity and adult mental health have been documented in epidemiological and social science research. However, there is a dearth of research examining this relationship among black Americans, as well as into what cultural institutions and practices may help individuals in dealing with childhood adversity. This study suggests that religion may be an important resource for black Americans in the face of early-life socioeconomic and health disadvantage. Using data from the National Survey of American Life, a nationally representative sample of both African Americans and black Caribbeans ( n = 5,191), this study outlines a series of arguments linking childhood adversity, religiosity, and self-perception among black Americans. The results suggest some support for religious involvement in moderating-or buffering-the harmful effects of childhood adversity on the self-esteem and mastery among black Americans, specifically religious service attendance and religious coping. In addition, the results reveal that religion may also amplify the deleterious effects of childhood disadvantage on adult mental health. Study limitations are identified and several promising directions for future research are discussed.” [ABSTRACT FROM AUTHOR]

Lipsky, S., Kernic, M. A., Qiu, Q., & Hasin, D. S. (2016). Posttraumatic stress disorder and alcohol misuse among women: Effects of ethnic minority stressors. *Social Psychiatry and Psychiatric Epidemiology*, 51(3), 407-419.

doi:10.1007/s00127-015-1109-z

- The researchers examined the effect of adult-onset PTSD on alcohol use outcomes in white, black, and Hispanic women to determine whether ethnic minority stressors play a role in the relationship. Women were 50% more likely to have a alcohol dependence if they experienced PTSD. White women were at a higher risk of alcohol outcomes than black and Hispanic women. However, PTSD

only predicted alcohol abuse among Hispanic women. However, the effect of PTSD on alcohol outcomes is most prevalent without minority stressors.

Merrick, M. T., Ford, D. C., & Ports, K. A. (2018). Prevalence of adverse childhood experiences from the 2011-2014 behavioral risk factor surveillance system in 23 states. *Journal of American Medical Association (JAMA) Pediatrics*, 172(10), 1-7.

doi:10.1001/jamapediatrics.2018.2537

- This study provides updated data on the prevalence of Adverse Childhood Experiences (ACE's) based on responses to the Behavioral Risk Factor Surveillance System (BRFSS), a nationally representative telephone survey of health behaviors, conditions, and utilization of services administered annually. The ACE portion of the survey includes 11 questions about physical, emotional and sexual abuse, mental illness, substance abuse and domestic violence within the household, incarcerated household members, and parental separation or divorce. 61.55% of the 214,157 respondents had at least one ACE, demonstrating the high prevalence of ACE's within the population. The results also show that although ACE's are common across sociodemographic lines, some individuals are at a greater risk than others. The authors conclude that identification and treatment exposure to ACE's is important, prevention efforts are a priority.

Slack, K. S., Font, S. A., & Jones, J. (2017). The complex interplay of adverse childhood experiences, race, and income. *Health & Social Work*, 42(1), e24-e31.

doi:10.1093/hsw/hlw059

- "An extensive research base shows evidence of racial disparities in health outcomes, and a growing body of evidence points to associations between adverse childhood experiences (ACEs) and poor health. This study uses data from the 2011 and 2012 Wisconsin Behavioral Risk Factor Surveillance System surveys to identify the relative contributions of ACEs, race, and adult income to predicting three sets of adverse adult health outcomes. The authors found that controlling for demographic factors, ACEs strongly predict health risk behaviors, indicators of poor general health, and chronic health conditions. Adult low-income status is associated with poor general health and chronic health conditions, but not health risk behaviors. African American race is marginally associated only with indicators of poor general health, and this association is attenuated when ACEs and adult income are controlled. These findings suggest a complex interplay among ACEs, race, and income." [ABSTRACT FROM AUTHOR]

Shilling, E. A., Aseltine Jr., R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: A longitudinal survey. *BMC Public Health*, 7, 30.

doi:10.1186/1471-2458-7-30

- A longitudinal study on the impact of ACEs on adolescent mental health during early adulthood. Three mental health outcomes were evaluated in this study, depressive symptoms, drug abuse, and antisocial behaviors. Results showed that except for sexual abuse/assault gender differences for the impact of a single ACE on depression and drug use was not significant. When boys and girls experiences the same ACEs, boys were more likely to engage in antisocial behaviors. In regards to race/ethnicity, it was observed the impact of ACEs on mental health was consistently greater for whites than blacks and hispanics. Adolescents from urban and low socioeconomic communities were reported to experience higher rates of ACEs. The need for prevention and early intervention is needed to mitigate the impact of ACEs on mental health.

Slopen, N., Shonkoff, J. P., Albert, M. A., Yoshikawa H., Jacobs, A., Stoltz R., Williams D. R. (2016). Racial disparities in child adversity in the U.S.: Interactions with family immigration history and income. *American Journal of Preventive Medicine* 50(1), 47–56. doi:10.1016/j.amepre.2015.06.013

- The results of this article conclude that black and hispanic children are exposed to more ACEs than white children. Results also show that income disparities are larger than ethnic or racial disparities. The consideration of racial/ethnic and income status should be taken into consideration when studying the distribution of disease and formulating target interventions for preventable health disparities.

## Disabilities

Björkenstam, E., Hjern A., & Vinnerljung, B. (2017). Adverse childhood experiences and disability pension in early midlife: Results from a Swedish National Cohort Study. *European Journal of Public Health*, 27(3), 472–477. doi:10.1093/eurpub/ckw233

- This study examines the relationship between ACEs and disability pensions in Sweden. The results showed that an increase in ACEs also increases the odds of for disability pensions. Child welfare intervention and household public assistance were the most common disability pensions. The study also showed that the more ACEs a child experienced the higher their odds for receiving disability pensions were. When exposed to four or more ACEs females had a 4-fold odds and males had a 7-folds odds. Education and school performance were a mediating factor between ACEs and disability pension.

Keesler, J. M. (2018). Adverse childhood experiences among direct support professionals. *Intellectual & Developmental Disabilities*, 56(2), 119-132. doi:10.1352/1934-9556-56.2.119

- “Direct support professionals (DSPs) provide integral support to many individuals with intellectual and developmental disabilities (IDD). Yet, individuals' access to

qualified DSPs is often compromised as organizations struggle to hire and retain DSPs. Despite a vast body of research exploring factors associated with turnover, adverse childhood experiences (ACEs) among DSPs remain absent from the literature. ACEs encompass abuse and familial dysfunction prior to the age of 18 and, in the general population, have been linked to compromised well-being and work-related challenges in adult life. An online survey was conducted to explore the prevalence of ACE categories and ACE scores (i.e., the sum of each ACE category experienced by a person) among DSPs ( n = 386) working in licensed settings. Seventy-five percent of DSPs experienced at least one ACE and 30% had an ACE score of four or more. DSPs who identified as female and those who had been in their position less than one year had significantly higher ACE scores than males and others who had been in their position longer, respectively. In comparison with other studies, the four most common ACE categories among DSPs (i.e., divorce, emotional abuse, mental illness, and substance abuse) were the same, however, DSPs in the present study had a higher average ACE score and nearly twice the percentage of persons having an ACE score of four or more. The potential implications of ACEs among DSPs, at the intersection of their work with individuals with IDD, are discussed.” [ABSTRACT FROM AUTHOR]

Kerns, C. M., Newschaffer, C. J., Berkowitz, S., & Lee, B. K. (2017). Examining the association of Autism and adverse childhood experiences in the National Survey of Children's Health: The important role of income and co-occurring mental health conditions. *Journal Of Autism And Developmental Disorders*, 47(7), 2275-2281. doi:10.1007/s10803-017-3111-7

- The results of this study show that children with an autism spectrum disorder are more likely to experience ACEs. The likelihood is made higher in lower income families, who are already at greater risk for ACEs. Children in a lower income family, with ASD, is increasingly vulnerable to encountering ACEs in their life. They also lack a significant amount of financial and social support, in comparison to their higher income counterparts. The need for support to lower income families, with a child with ASD, is needed.

Kvam, M. H., & Loeb, M. (2010). The relation between adverse childhood experiences and later mental health among deaf adults. *Scandinavian Journal Of Disability Research*, 12(4), 233-244. doi:10.1080/15017410903479004

- “The aim of this article is to describe some self-reported adverse childhood experiences and the current self-reported mental health situation among 376 adults who lost their hearing before nine years of age, and to analyse the possible link between the adverse childhood experiences and adult mental health problems. Adult members of the Norwegian Deaf Register were asked to

complete a self-administered questionnaire. The analysis are focused on three aspects of negative childhood experiences: corporal punishment by at least one of the parents (reported by 36%), being frequently bullied by peers (reported by 23%) and being seriously sexually abused by known or unknown people (reported by 30%). Thirty-five percent of the respondents reported a mental health problem. Results indicated an association between the reported three negative childhood experiences and later mental health problems. Further analysis showed that having experienced two or three of the mentioned negative experiences in combination increased the probability of reporting mental health problems significantly.” [ABSTRACT FROM AUTHOR]

Rigles, B. (2017). The relationship between adverse childhood events, resiliency and health among children with Autism. *Journal Of Autism & Developmental Disorders*, 47(1), 187-202. doi:10.1007/s10803-016-2905-3

- This study focuses on the comparison between children with and without ASD and how ACEs and resilience affects them. Results show that children with ASD are more likely to experience ACEs and experience the negative impact of those ACE's in their lives. However, the increase of ACEs does not significantly impact their resiliency. So, having ASD appears to moderate the relationship between ACEs and resilience. Divorce was the only ACE that appeared to have a significant impact on the resiliency of a child with ASD. It appears that an ACE is more likely to diminish resiliency if it impacts the routing of a child with ASD. A singular expose to an ACE might not cause much disturbance in the child's life. However, it continues to occur and changes the routine, a drop in resiliency will likely occur.

Schussler-Fiorenza Rose, S. M., Eslinger, J. G., Zimmerman, L., Scaccia, J., Lai, B. S., Lewis, C., & Alisic, E. (2016). Adverse childhood experiences, support, and the perception of ability to work in adults with disability. *Public Library of Science (PLoS) One*, 11(7). doi:10.1371/journal.pone.0157726

- Objective: Examine the impact that ACEs and support have on individuals with disabilities who have self-reported work inability. The study is comprised of individuals who have reported a disability and participated in the Behavioral Risk Factor Surveillance System in 2009 or 2010. Support was separated as, functional support and structural support. Functional support would be emotional/social support. Structural support would be living with another adult. Results showed that the higher amount of ACEs experienced, the higher the chances of work inability. Functional support and structural support were protective factors against ACEs. When education and health were added to structural and functional support, ACEs didn't appear to have an independent

impact. Good physical health was necessary for functional health to be protective, but structural health was protective throughout.

Schüssler-Fiorenza Rose, S. M., Xie, D., & Stineman, M. (2014). Original Research: Adverse childhood experiences and disability in U.S. adults. *PM & R: The Journal of Injury, Function, and Rehabilitation*, 6(8), 670-680. doi:10.1016/j.pmrj.2014.01.013

- This study supports the hypothesis that ACEs have a strong graded effect on self-reported disabilities. ACEs are seen to have a strong impact on adult self-reported disabilities even after there is control for health conditions. Sexual abuse is the least common form of abuse, but it yielded the highest amount of adult disability. When stress from adverse childhood experiences are combined with later-life stressors are more likely to develop psychiatric conditions and disabilities. The prevalence of ACE was lower in older adults than younger individuals. Ages 19-29 years old had a prevalence of 63.8%, where as 75+ had a 35.5% prevalence. This remained consistent when individuals reported 5 or more ACEs as well. ACEs were more common in individuals with lower incomes, lacking a high school education, and those divorced and/or seperated. Those who experienced an ACE more than once had a higher disability prevalence. The more disabilities one experienced, the higher their disability prevalence would be.

## Family/Parents

Chung, E., Mathew, L., Elo, I., Coyne, J., & Culhane, J. (2008). Depressive symptoms in disadvantaged women receiving prenatal care: The influence of adverse and positive childhood experiences. *Ambulatory Pediatrics*, 8(2), 109-116.

doi:10.1016/j.ambp.2007.12.003

- “Objective: To determine the association between adverse childhood experiences (ACEs), positive influences in childhood (PICs), and depressive symptoms among low-income pregnant women. Methods: Face-to-face survey of women receiving prenatal care at Philadelphia community health centers. We conducted surveys at the first prenatal care visit and at a mean age +/- standard deviation of 11 +/- 1 months postpartum, and obtained information on sociodemographic characteristics and childhood experiences before age 16. Group differences were tested with respect to a cutpoint of 23 on the Center for Epidemiologic Studies-Depression scale (CES-D), with the chi square test used for categorical variables and the Student's t test used for continuous variables. Logistic regression analyses were conducted to adjust for potential confounding variables. Results: The sample consisted of 1476 mostly young, African American, low-income women. The majority (70% and 90%, respectively) of women reported at least one ACE and one PIC. For each ACE, affected women

were more likely to have depressive symptoms than their counterparts. There was a dose-response effect in that a higher number of ACEs was associated with a higher likelihood of having depressive symptoms. PICs, on the other hand, were associated with a lower likelihood of having depressive symptoms. Conclusions: Among low-income women, ACEs were associated with a higher likelihood of having depressive symptoms in a dose-response fashion, and PICs were associated with a lower risk. Efforts to prevent ACEs and to promote PICs might help reduce the risk of depressive symptoms and their associated problems in adulthood.” [Abstract from Author]

Colman, R.A., & Widom, C.S. (2004). Childhood abuse and neglect and adult intimate relationships: A prospective study. *Child Abuse & Neglect*, 28(11), 1133-1139. doi:10.1016/j.chiabu.2004.02.005

- Studies show that marital relationships may be undermined if one or both partners have a history of ACEs.

Conn, A., Jee, S. H., Briggs, R., Szilagyi, M. A., Manly, J. T., & Szilagyi, P. G. (2018). Parental perspectives of screening for adverse childhood experiences in pediatric primary care. *Families, Systems & Health*, 36(1), 62-72. doi:10.1037/fsh0000311

- Studies have shown that parenting can be difficult for individuals who have ACEs due to their decreased executive functions such as self-regulation. Executive functions in the brain are essential in parenting, yet childhood adversity and trauma can impede those functions into adulthood and parenthood.

Fenerci, R. B., Chu, A. T., & DePrince, A. P. (2016). Intergenerational transmission of trauma-related distress: Maternal betrayal trauma, parenting attitudes, and behaviors. *Journal of Aggression Maltreatment & Trauma*, 25(4), 382-399.

<https://doi.org/10.1080/10926771.2015.1129655>

- Researchers found that in mothers who experienced child abuse and reported high levels of parenting satisfaction might be fulfilling their unmet needs (need for unconditional love, or positive affirmations for self-esteem) through their relationship with their child. These attitudes revolve around the mother and not the child and did not increase levels of social-emotional well-being for children.

Folger, A. T., Eismann, E. A., Stephenson, N. B., Shapiro, R. A., Macaluso, M., Brownrigg, M. E., & Gillespie, R. J. (2018). Parental adverse childhood experiences and offspring development at 2 years of age. *Pediatrics*, 141(4).

doi:10.1542/peds.2017-2826

- OBJECTIVES: The study objective was to determine if maternal and paternal exposure to adverse childhood experiences (ACEs) have a significant association with negative offspring development at 24 months of age in a suburban pediatric primary care population.

- **METHODS:** A retrospective cohort study was conducted of 311 mother-child and 122 father-child dyads who attended a large pediatric primary care practice. Children were born from October 2012 to June 2014, and data were collected at the 2-, 4-, and 24-month well-child visits. Multivariable Poisson regression with robust error variance was used to model the relationship between self-reported parental ACEs and the outcomes of suspected developmental delay at 24 months and eligibility for early intervention services.
- **RESULTS:** For each additional maternal ACE, there was an 18% increase in the risk for a suspected developmental delay (relative risk: 1.18, 95% confidence interval: 1.08–1.29). A similar trend was observed for paternal ACEs (relative risk: 1.34, 95% confidence interval: 1.07–1.67). Three or more maternal ACEs (versus <3 ACEs) was associated with a significantly increased risk for a suspected developmental delay that affected multiple domains. Similar effects were observed for early intervention services.
- **CONCLUSIONS:** Parental ACE exposures can negatively impact child development in multiple domains, including problem solving, communication, personal-social, and motor skills. Research is needed to elucidate the psychosocial and biological mechanisms of intergenerational risk. This research has implications for the value of parental ACE screening in the context of pediatric primary care.

Glaser, D. (2000). Child abuse and neglect and the brain—A review. *Journal of Child Psychology and Psychiatry*, 41, 97-116. <https://doi.org/10.1111/1469-7610.00551>

- Unresolved trauma increases the likelihood of a repeated cycle of violence; some parents with high exposure to ACEs may be more likely to neglect or abuse their children if they are not given the opportunity to resolve their traumatic experiences.

Green, B. L., Saunders, P. A., Power, E., Dass-Brailsford, P., Schelbert, K. B., Giller, E., ... Mete, M. (2016). Trauma-informed medical care: Patient response to a primary care provider communication training. *Journal of Loss & Trauma*, 21(2), 147–159.

<https://doi.org/10.1080/15325024.2015.1084854>

- This study tested the effectiveness of a six hour training on communication for primary care physicians. This trauma-informed training was designed to help physicians learn how to better interact with trauma survivors, given the proven. The initial results of the study, based on patient surveys about their interactions with their physician before and after the training, showed better outcomes after the training.

Kolomeyer, E., Renk, K., Cunningham, A., Lowell, A., & Khan, M. (2016). Mothers' adverse childhood experiences and negative parenting behaviors. *Zero to Three*, 37(1), 5-12. <https://doi.org/10.1016/j.amepre.2017.07.015>

- “Previous studies have supported a connection between adverse childhood experiences (ACEs) and negative outcomes in adulthood. Fewer studies have examined the connection between ACEs and parenting behaviors, however. The study described in this article examined the relationships among ACEs, reflective functioning, and negative parenting behaviors in 233 mothers of young children who ranged in age from 2 to 5 years old. Findings suggested that there were significant relationships among these variables, with reflective functioning mediating the relationship between ACEs and negative parenting behaviors. Thus, consistent with the theoretical underpinnings of many evidence-based, attachment-focused parenting interventions, reflective functioning may be an important port of entry for reducing negative parenting behaviors in mothers who were exposed to ACEs.” [ABSTRACT FROM AUTHOR]

Larkin, H., Felitti, V. J., & Anda, R. F. (2014). Social work and adverse childhood experiences research: Implications for practice and health policy. *Social Work in Public Health, 29*(1), 1-16. doi:10.1080/19371918.2011.619433

- Researchers note that when parents have their own ACE history it can lead to weak or destructive parenting skills that continue the intergenerational cycle of trauma and abuse.

Lomanowska, A.M., Boivin, M., Hertzman, C., & Fleming, A.S. (2017). Parenting begets parenting: A neurobiological perspective on early adversity and the transmission of parenting styles across generations. *Neuroscience, 342*, 120-139.

doi:10.1016/j.neuroscience.2015.09.029

- Mothers with a history of adverse early experiences face specific challenges in parenting for example: limited emotional availability during mother-infant interactions, impaired parenting skills, higher levels of child neglect, low self-confidence as a parent, greater use of physical punishment, and a lack of emotional control in parenting situations.
- Children who grow up neglected or abused by their parent tend to be less equipped to take on a parenting role and are more likely to adopt parenting behaviors that perpetuate adverse parenting behaviors such as: limited perception and responsiveness toward children, difficulties in regulating parenting behavior, as well as depression.

Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., & ... Steele, H. (2014). Adverse childhood experiences (ACEs) questionnaire and adult attachment interview (AAI): Implications for parent child relationships. *Child Abuse & Neglect, 38*(2), 224-233. doi:10.1016/j.chiabu.2013.09.004

- Researchers note that when individuals do not process their own history of childhood adversity it may impact their parentings skills in the future because they are not aware of how ACEs and the subsequent negative mental and

physical health outcomes are affecting their lives. Additionally, parents with ACEs were prone to being overwhelmed at times by frightened or frightening responses to their children and these responses contributed to disorganized patterns of attachment between the parent and child.

Racine, N., Plamondon, A., Madigan, S., McDonald, S., & Tough, S. (2017). Maternal adverse childhood experiences and infant development. *Pediatrics*, *141*(4), 24-95. doi:10.1542/peds.2017-2495

- “Objectives: To examine the prenatal and postnatal mechanisms by which maternal adverse childhood experiences (ACEs) predict the early development of their offspring, specifically via biological (maternal health risk in pregnancy, infant health risk at birth) and psychosocial risk (maternal stress during and after pregnancy, as well as hostile behavior in early infancy).
- Methods: Participants were 1994 women (mean age = 31 years) and their infants, who were recruited in pregnancy as part of a prospective longitudinal cohort from 2008 to 2010. Pregnant women completed self-report questionnaires in pregnancy and postpartum related to psychosocial risk and a questionnaire about hostile behavior when their infant was 4 months of age. Health risk in pregnancy and infant health risk at birth were obtained from health records. Mothers completed the Ages and Stages Questionnaire when infants were 12 months of age.
- Results: Path analysis revealed that the association between maternal ACEs and infant development outcomes at 12 months operated through 2 indirect pathways: biological health risk (pregnancy health risk and infant health risk at birth) and psychosocial risk (maternal psychosocial risk in pregnancy and maternal hostile behavior in infancy).
- Conclusion: Psychosocial risks in pregnancy, but not in early infancy, contribute to the transmission of vulnerability from maternal ACEs to child development outcomes in infancy via maternal behavior. Maternal health risk in pregnancy indirectly confers risk from maternal ACEs to child development outcomes at 12 months of age through infant health risk. Maternal health and psychosocial well-being in pregnancy may be key targets for intervention.

Shah, A. N., Beck, A. F., Sucharew, H. J., Litman, S., Pfefferman, C., Haney, J., ... & Auger, K. A. (2018). Parental adverse childhood experiences and resilience on coping after discharge. *Pediatrics*, *141*(4), 21-27. <https://doi.org/10.1542/peds.2017-2127>

- BACKGROUND AND OBJECTIVES: Adults with a history of adverse childhood experiences (ACEs) (eg, abuse) have suboptimal health outcomes. Resilience may blunt this effect. The effect of parental ACEs (and resilience) on coping with challenges involving their children (eg, hospitalization) is unclear. We sought to

quantify ACE and resilience scores for parents of hospitalized children and evaluate their associations to parental coping after discharge.

- **METHODS:** We conducted a prospective cohort study at a children's hospital (August 2015–May 2016). Eligible participants were English-speaking parents of children hospitalized on the Hospital Medicine or Complex Services team. The ACE questionnaire measured the responding parent's past adversity (ACE range: 0–10;  $\geq 4$  ACEs = high adversity). The Brief Resilience Scale (BRS) was used to measure their resilience (range: 1–5; higher is better). The primary outcome was measured by using the Post-Discharge Coping Difficulty Scale via a phone call 14 days post-discharge (range: 0–100; higher is worse). Associations were assessed by using multivariable linear regression, adjusting for parent- and patient-level covariates.
- **RESULTS:** A total of 671 (81% of eligible parents) responded. Respondents were primarily women (90%), employed (66%), and had at least a high school degree (65%); 60% of children were white, 54% were publicly insured. Sixty-four percent of parents reported  $\geq 1$  ACE; 19% had  $\geq 4$  ACEs. The mean Brief Resilience Scale score for parents was 3.95. In adjusted analyses, higher ACEs and lower resilience were significantly associated with more difficulty coping after discharge.
- **CONCLUSIONS:** More parental adversity and less resilience are associated with parental coping difficulties after discharge, representing potentially important levers for transition-focused interventions.

Smith, M. V., Gotman, N., & Yonkers, K. A. (2016). Early childhood adversity and pregnancy outcomes. *Maternal & Child Health Journal*, 20(4), 790-798.

doi:10.1007/s10995-015-1909-5.

- “Objectives To examine the association between adverse childhood experiences (ACEs) and pregnancy outcomes; to explore mediators of this association including psychiatric illness and health habits. Methods Exposure to ACEs was determined by the Early Trauma Inventory Self Report Short Form; psychiatric diagnoses were generated by the Composite International Diagnostic Interview administered in a cohort of 2303 pregnant women. Linear regression and structural equation modeling bootstrapping approaches tested for multiple mediators. Results Each additional ACE decreased birth weight by 16.33 g and decreased gestational age by 0.063. Smoking was the strongest mediator of the effect on gestational age. Conclusions ACEs have an enduring effect on maternal reproductive health, as manifested by mothers' delivery of offspring that were of reduced birth weight and shorter gestational age.” [Abstract from Author]

Walker, J. (2007). Unresolved loss and trauma in parents and the implications in terms of child protection. *Journal of Social Work Practice, 21*, 77-87.

doi:10.1080/02650530601173656

- In adults who have children, research suggests that parents struggling with the effects of unresolved trauma are more likely to act in ways that are harmful to their own children, and are at a higher risk of maltreating their children in manners similar to their own victimization.

Willis, G. M. & Levenson, J. S. (2016). The relationship between childhood adversity and adult psychosocial outcomes in females who have sexually offended: Implications for treatment. *Journal of Sexual Aggression, 22*(3), 355-367.

doi:10.1080/13552600.2015.1131341

- A history of adverse experiences, specifically cumulative trauma (more than one experience), may contribute to abusive or neglectful behaviors by parents.

## **Gender**

Almuneef, M., ElChoueiry, N., Saleheen, H. N., & Al-Eissa, M. (2017). Gender-based disparities in the impact of adverse childhood experiences on adult health: Findings from a national study in the Kingdom of Saudi Arabia. *International Journal for Equity In Health, 16*, 1-9. doi:10.1186/s12939-017-0588-9

- “Background: Adverse Childhood Experiences (ACEs) have been linked to an increased risk of health and social problems throughout life. Studies on gender differences from developing countries are scarce. In this paper, we will examine gender variations in the types of reported ACEs and gender-specific relationships between cumulative ACEs and physical and mental health, and Risky Health Behaviors (RHB) in adulthood in the Kingdom of Saudi Arabia (KSA). Methods: A cross sectional national study was conducted in all of the 13 regions in KSA in 2013 using the ACE-International Questionnaire (ACE-IQ). We used multivariate logistic regression to examine the relationship between 4+ ACEs and physical, mental health and RHBs for both men and women separately after adjusting for age, education, marital status and current employment. Results: The total number of participants was 10,156 and women comprised 48% of the sample. The majority of respondents (80%) reported at least one ACE. Women had higher percentages of  $\leq 2$  ACEs (65% vs 55%;  $p < 0.05$ ) while men were more likely to have 4+ ACEs (33% vs 25%;  $p < 0.05$ ). When compared to participants with 0 ACE, men who reported 4+ ACEs were associated with the highest likelihood of using drugs (OR = 9.7; 95% CI: 6.4-14.5) and drinking alcohol (OR = 9.2; 95% CI: 6.3-13.6). On the other hand, women who experienced 4+ ACEs were associated with the highest likelihood of depression (OR = 7.0; 95% CI: 5.2-9.4), anxiety (OR = 6.4; 95% CI: 5.0-8.2) and other mental illnesses (OR = 7.4; 95% CI: 5.2-10.6). As for chronic diseases, abused men and women in

childhood showed similarly a twofold increased risk of developing diabetes, hypertension, coronary heart disease and obesity when compared to non-abused participants. Conclusion: Findings highlight the need to consider gender specific differences in the development of preventive strategies to address ACEs in KSA.” [ABSTRACT FROM AUTHOR]

Cambron, C., Gringeri, C., & Vogel-Ferguson, M. B. (2015). Adverse childhood experiences, depression and mental health barriers to work among low-income women. *Social Work in Public Health, 30*(6), 504-515. doi:10.1080/19371918.2015.1073645

- “Recent research has connected childhood abuse to decreased physical and mental health for low-income women in Utah. Further, mental health has established a link to employment problems. This study conducted a secondary analysis of data collected from individuals accessing public assistance to investigate the relationships among retrospective self-reports of childhood emotional, physical and sexual abuse and prospective indicators of mental health and mental health barriers to work. Logistic regression models found strong relationships between childhood abuse and increased odds of depression and mental health barriers to work. Path models highlight the relative importance of depression for those reporting mental health as the biggest barrier to work. Recommendations for social workers, public health professionals, and program administrators are provided.” [ABSTRACT FROM AUTHOR]

Cavanaugh, C., Petras, H., & Martins, S. (2015). Gender-specific profiles of adverse childhood experiences, past year mental and substance use disorders, and their associations among a national sample of adults in the United States. *Social Psychiatry & Psychiatric Epidemiology, 50*(8), 1257-1266. doi:10.1007/s00127-015-1024-3

- “Purpose: This study examined profiles of adverse childhood experiences (ACEs) and mental and substance use disorders (MSUDs), and associations between distinct profiles of ACEs and MSUDs. Methods: Participants were adults ( N = 34, 652) involved in the National Epidemiologic Survey on Alcohol and Related Conditions. Latent class analysis was used to examine both profiles of ten ACEs and ten past year MSUDs. Dual latent class analysis regression was used to examine associations between profiles of ACEs and MSUDs. Given gender differences in ACEs and MSUDs, analyses were conducted separately for females and males. Results: Four profiles of ACEs and three profiles of MSUDs were selected for both genders. The four profiles of ACEs were characterized by the following probabilities: high multiple ACEs, high parental substance abuse, high childhood physical abuse, and low ACEs. The three profiles of MSUDs were characterized by the following probabilities: high multiple MSUDs for females and low MSUDs except alcohol use disorders for males, moderate-to-high major depressive episode, and low MSUDs. When compared to the low ACEs and

MSUDs profiles, members in the higher ACEs profiles had 3.71-89.75 times greater odds of also being members in the higher MSUDs profiles. However, more than one-third of members in the high multiple ACEs profiles were also in the low MSUDs profiles. Conclusions: Study findings suggest four profiles of the ACEs widely studied as part of the Adverse Childhood Experiences study and risk and resilience for recent MSUDs among men and women nationally affected by ACEs.” [ABSTRACT FROM AUTHOR]

Firth, M. T. (2014). Childhood abuse and depressive vulnerability in clients with gender dysphoria. *Counselling & Psychotherapy Research, 14*(4), 297-305.

doi:10.1080/14733145.2013.845236

- “Background: Childhood abuse in the early lives of gender variant people has been under-reported, although higher psychiatric morbidity, particularly depression and suicidality, than in the general population is more widely recognised. There are increasing numbers of people seeking advice and treatment for gender dysphoria (GD) some of whose experiences of depression and childhood abuse may be additional treatment considerations. Aim: To illuminate the issues relating to childhood abuse, depression and GD via case examples underpinned by a summary review of the relevant literature, for their combined relevance to therapeutic practice and service provision. Methods: A review of relevant online literature was conducted and two case examples were developed subsequently to capture the core review themes from a practice perspective. Results: Nine studies met the inclusion criteria. Gender variant children and adolescents may experience abuse by peers and teachers, as well as parents and caregivers. Emotional abuse and neglect may have more adverse consequences than more active forms of abuse. Conclusions: This is an under-researched area, and inconsistencies of design, definition, measurement and controls were evident in the literature. While no clear association between depressive vulnerability and childhood abuse could be found, prevalence of such abuse was high. A case is made for clients with GD to have the opportunity to explore the influence and meaning of their adverse childhood experiences on their social and psychological development, and for additional training and education for practitioners.” [Abstract from Author]

Haatainen, K. M., Tanskanen, A., Kylmä, J., Honkalampi, K., Koivumaa-Honkanen, H., Hintikka, J., Antikainen, R., & Viinamäki, H. (2003). Gender differences in the association of adult hopelessness with adverse childhood experiences. *Social Psychiatry & Psychiatric Epidemiology, 38*(1), 12. doi:10.1007/s00127-003-0598-3

- “Background The impact of childhood traumatic events on long-term psychological development has been widely studied. Nevertheless, little research has been carried out on possible associations between adverse childhood

experiences (ACEs) and hopelessness in adulthood, and whether any gender differences exist. Aim The aim of this study was to examine the association between ACEs (poor relationship between parents, unhappiness of childhood home, hard parenting, physical punishment, domestic violence, alcohol abuse in primary family) and current hopelessness without any mental disorder in a general population sample. Method 1598 adults (43% were men), aged 25-64 years, completed self-report measures to assess ACEs and hopelessness by means of the Beck Hopelessness Scale (HS). Logistic regression was used to adjust for the effects of sociodemographic factors on the association between the cumulative number of ACEs and hopelessness. Results Whereas several bivariate associations were found between ACEs and hopelessness, none of them remained significant in multivariate analysis. However, men who reported three or more ACEs were 2.79 times (95% CI 1.17-6.63) and women 2.19 times (95% CI 1.04-4.65) more likely to be hopeless compared with those without any ACEs. In women (OR 2.25, 95% CI 1.01-5.00), but not in men, this relationship remained significant after adjusting for several current covariates. Conclusion Clustering of ACEs may have long-lasting effects by increasing the risk of hopelessness in adulthood, especially in women. Increased awareness of the frequency of ACEs and their subsequent consequences, such as hopelessness, may encourage health care professionals to undertake preventive work in primary and mental health care.” [ABSTRACT FROM AUTHOR]

Hillis, S.D., Anda, R.F., Felitti, V.J., & Marchbanks, P.A. (2001). Adverse childhood experiences and sexual risk behaviors in women: A retrospective cohort study. *Family Planning Perspectives, 33*(5), 206-211. doi:10.2307/2673783

- “CONTEXT: Adverse childhood experiences such as physical abuse and sexual abuse have been shown to be related to subsequent unintended pregnancies and infection with sexually transmitted diseases. However, the extent to which sexual risk behaviors in women are associated with exposure to adverse experiences during childhood is not well-understood. METHODS: A total of 5,060 female members of a managed care organization provided information about seven categories of adverse childhood experiences: having experienced emotional, physical or sexual abuse; or having had a battered mother or substance-abusing, mentally ill or criminal household members. Logistic regression was used to model the association between cumulative categories of up to seven adverse childhood experiences and such sexual risk behaviors as early onset of intercourse, 30 or more sexual partners and self-perception as being at risk for AIDS. RESULTS: Each category of adverse childhood experiences was associated with an increased risk of intercourse by age 15 (odds ratios, 1.6-2.6), with perceiving oneself as being at risk of AIDS (odds

ratios, 1.5-2.6) and with having had 30 or more partners (odds ratios, 1.6-3.8). After adjustment for the effects of age at interview and race, women who experienced rising numbers of types of adverse childhood experiences were increasingly likely to see themselves as being at risk of AIDS: Those with one such experience had a slightly elevated likelihood (odds ratio, 1.2), while those with 4-5 or 6-7 such experiences had substantially elevated odds (odds ratios, 1.8 and 4.9, respectively). Similarly, the number of types of adverse experiences was tied to the likelihood of having had 30 or more sexual partners, rising from odds of 1.6 for those with one type of adverse experience and 1.9 for those with two to odds of 8.2 among those with 6-7. Finally, the chances that a woman first had sex by age 15 also rose progressively with increasing numbers of such experiences, from odds of 1.8 among those with one type of adverse childhood experience to 7.0 among those with 6-7. CONCLUSIONS: Among individuals with a history of adverse childhood experiences, risky sexual behavior may represent their attempts to achieve intimate interpersonal connections. Having grown up in families unable to provide needed protection, such individuals may be unprepared to protect themselves and may underestimate the risks they take in their attempts to achieve intimacy. If so, coping with such problems represents a serious public health challenge.” [Abstract from Author]

Honkalampi, K., Hintikka, J., Haatainen, K., Koivumaa-Honkanen, H., Tanskanen, A., & Viinamäki, H. (2005). Adverse childhood experiences, stressful life events or demographic factors: which are important in women's depression? A 2-year follow-up population study. *Australian & New Zealand Journal Of Psychiatry*, 39(7), 627-632. <https://doi.org/10.1080%2Fj.1440-1614.2005.01636.x>

- “OBJECTIVE: The aim of this study was to simultaneously test adverse background factors, namely adverse childhood experiences (ACEs), stressful life events and prior depressive symptoms, for their ability to predict recovery and non-recovery from depression in women among the general population. METHOD: A stratified random sample of women (n = 835) from the general population was collected at baseline in 1999. Depression (Beck Depression Inventory, BDI-21), ACEs and background factors were assessed by postal questionnaire at baseline. Two years later, stressful life events during the study phase, social support, use of health services and current depression (BDI > or = 13) were similarly assessed. RESULTS: Adverse childhood experiences were common among depressed women and these past experiences together with the use of health services were associated with recovery from depression. Financial difficulties and a poor subjective health status associated with non-recovery and current stressful life events increased the likelihood of depression on follow-up. Furthermore, the important variables explaining depression on follow-up were the

quality of social support and the existence of prior depressive symptoms at baseline. CONCLUSIONS: Our results suggest that women's current depression especially associates with stressful life events, insufficient social support, poor subjective health and financial difficulties. It seems possible that past adverse experiences predispose women to depression, but current stressful events actualize these symptoms. In addition, use of health services are associated with recovery in women who had ACEs." [Abstract from Author]

Jacobs, M. B., Boynton-Jarrett, R. D., & Harville, E. W. (2015). Adverse childhood event experiences, fertility difficulties and menstrual cycle characteristics. *Journal of Psychosomatic Obstetrics & Gynecology*, 36(2), 46-57.

doi:10.3109/0167482X.2015.1026892

- "Introduction: Increased childhood adversity may be affect adult fertility, however, the mechanism through which this occurs is unclear. Menstrual cycle abnormalities are predictive of fertility difficulties, and stress influences menstrual cycle characteristics. Here, we assess whether adverse childhood experiences (ACEs) are associated with fertility difficulties and menstrual cycle dysregulation, offering a plausible mechanism for the link between lifetime stress and fertility."
- "Methods: From April 2012 to February 2014, 742 pregnant and non-pregnant women aged 18-45 years residing in southeastern Louisiana provided information on childhood adversity and reproductive history. Associations between ACEs and fertility difficulties and menstrual cycle patterns were evaluated."
- "Results: As the number of ACEs increased, risk of fertility difficulties and amenorrhea increased (RR = 1.09, 95% CI 1.05-1.13 and RR = 1.07, 95% CI 1.04-1.10, respectively), while fecundability decreased [fecundability ratio (FR) = 0.97, 95% CI 0.95-1.00]. Compared to women with no adversity, women in the high adversity group were more likely to experience both infertility and amenorrhea (RR = 2.75, 95% CI 1.45-5.21 and RR = 2.54, 95% CI 1.52-4.25, respectively), and reduced fecundability (FR = 0.75, 95% CI 0.56-1.00). Although similar patterns were seen for menstrual cycle irregularity, associations were diminished. Associations did not materially change following adjustment for age, body mass index, race, education, smoking and income. Results are constrained by the self-report nature of the study and the limited generalizability of the study population."
- "Discussion: To our knowledge, this is the first study to present evidence of a link between childhood stressors, menstrual cycle disruption and fertility difficulties. The effect of childhood stress on fertility may be mediated through altered functioning of the HPA axis, acting to suppress fertility in response to less than optimal reproductive circumstances." [ABSTRACT FROM AUTHOR]

Jewkes, R., Nduna, M., Jama-Shai, N., Chirwa, E., & Dunkle, K. (2016). Understanding the relationships between gender inequitable behaviours, childhood trauma and socio-economic status in single and multiple perpetrator rape in rural south africa: Structural equation modelling. *PLOS ONE*, *11*, 1-14. doi:10.1371/journal.pone.0154903

- “Background: Interventions to prevent rape perpetration must be designed to address its drivers. This paper seeks to extend understanding of drivers of single and multiple perpetrator rape (referred to here as SPR and MPR respectively) and the relationships between socio-economic status, childhood trauma, peer pressure, other masculine behaviours and rape. Method: 1370 young men aged 15 to 26 were interviewed as part of the randomised controlled trial evaluation of Stepping Stones in the rural Eastern Cape. We used multinomial to compare the characteristics of men who reported rape perpetration at baseline. We used structural equation modelling (SEM) to examine pathways to rape perpetration. Results: 76.1% of young men had never raped, 10.0% had perpetrated SPR and 13.9% MPR. The factors associated with both MPR and SPR (compared to never having raped) were indicators of socio-economic status (SES), childhood trauma, sexual coercion by a woman, drug and alcohol use, peer pressure susceptibility, having had transactional sex, multiple sexual partners and being physically violent towards a partner. The SEM showed the relationship between SES and rape perpetration to be mediated by gender inequitable masculinity. It was complex as there was a direct path indicating that SES correlated with the masculinity variable directly such that men of higher SES had more gender inequitable masculinities, and indirect path mediated by peer pressure resistance indicated that the former pertained so long as men lacked peer pressure resistance. Having a higher SES conveyed greater resistance for some men. There was also a path mediated through childhood trauma, such that men of lower SES were more likely to have a higher childhood trauma exposure and this correlated with a higher likelihood of having the gender inequitable masculinity (with or without the mediating effect of peer pressure resistance). Discussion: Both higher and lower socio-economic status were associated with raping. Prevention of rape perpetration must focus on changing men’s gender ideals, entitlements and inequitable practices. Reducing poverty and adverse childhood experiences should also be of benefit.” [ABSTRACT FROM AUTHOR]

Rossegger, A., Wetli, N., Urbaniok, F., Elbert, T., Cortoni, F., & Endrass, J. Women convicted for violent offenses: Adverse childhood experiences, low level of education and poor mental health. (2009). *BMC Psychiatry*, *9*(1), 81-87. doi:10.1186/1471-244X-9-81

- “Background: In past years, the female offender population has grown, leading to an increased interest in the characteristics of female offenders. The aim of this

study was to assess the prevalence of female violent offending in a Swiss offender population and to compare possible socio-demographic and offense-related gender differences.”

- “Methods: Descriptive and bivariate logistic regression analyses were performed for a representative sample of N = 203 violent offenders convicted in Zurich, Switzerland.”
- “Results: 7.9% (N = 16) of the sample were female. Significant gender differences were found: Female offenders were more likely to be married, less educated, to have suffered from adverse childhood experiences and to be in poor mental health. Female violent offending was less heterogeneous than male violent offending, in fact there were only three types of violent offenses females were convicted for in our sample: One third were convicted of murder, one third for arson and only one woman was convicted of a sex offense.”
- “Conclusions: The results of our study point toward a gender-specific theory of female offending, as well as toward the importance of developing models for explaining female criminal behavior, which need to be implemented in treatment plans and intervention strategies regarding female offenders.” [Abstract from Author]

Wiig, E. M., Haugland, B. M., Halsa, A., & Myhra, S. M. (2017). Substance-dependent women becoming mothers: Breaking the cycle of adverse childhood experiences. *Child & Family Social Work*, 22(1), 26-35. doi:10.1111/cfs.12190

- “The article presents the study which examined how substance-dependent mothers detail their childhood experiences with substance-abusing parents, as well as the relationship of their experiences and their own role as caregivers. Also cited are the parental challenges confronted by women who experienced substance use disorders (SUD) in their families, and the percentage of children below 18 years old who live with parents with diagnosable alcohol problems in Norway.” [Abstract from Author]