



Health: Body Mind and Spirit

Toxic Stress, Trauma, and Resilience

Real Stories and Real Lives

Sara, age 4, and Julian, age 9, were born and are being raised in New Mexico. They have a view of the mountains from their front yard and like to sit outside looking at the stars at night with their parents. Their mom, Felice, is 25 and their father, Joe, is 32. They come from families that have lived in New Mexico forever, as far as anyone can remember. Felice is the primary caregiver to the children, and she works in home healthcare.

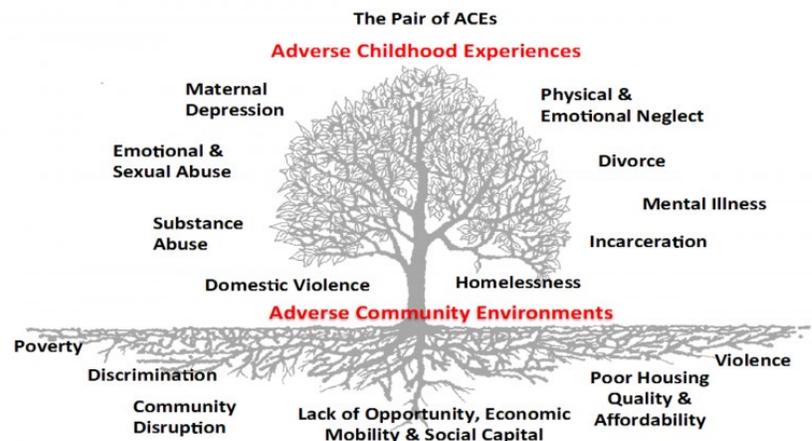
Felice earned her GED before Sara was born and while Julian was in Head Start. Felice has dreamed of being a psychiatric nurse. Joe is funny and kind and loves being a father. He also struggles with addiction and interactions with the criminal-legal system which has led to periods of incarceration.

Both Julian and Sara were born prematurely. Sara is bright, energetic, and has been expelled from 3 early childhood programs in the last 6 months. Julian does well in school and has made a close friend but frequently spends time in the school nurse’s office with complaints of headaches and stomach aches. With Felice’s work schedule and Joe’s absences, the children’s aunts, uncles, and grandparents often need to pick them up from childcare or school when there has been a behavioral incident or ongoing health concern.

Social Conditions and Underlying Causes

The impact of trauma and toxic stress throughout a person’s life has a significant impact on behavioral, mental, and physical health outcomes. The relationship between household dysfunction, abuse, and child maltreatment and the leading causes of illness and death have been identified in the foundational [Adverse Childhood Experiences \(ACE\) study](#) in the 1990s by doctors Vincent Felitti

and Robert Anda and confirmed in ongoing studies. According to [Child Trends](#), 53% of New Mexico children have experienced one or more reported adverse childhood experience. Fourteen percent of those children have experienced three or more adverse childhood experiences at least once, but many report multiple occurrences. In addition, too many New Mexicans are members of communities that are affected by trauma from historical and on-going oppression. There are three



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. *Academic Pediatrics*. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

categories of ACEs: Adverse Childhood Experiences, Adverse Community Experiences, and Adverse Climate Experiences. While the causes and solutions vary, our brains do not distinguish between one kind of toxic stress and another. If not adequately addressed, trauma and toxic stress have long-term impacts on individual health and well-being, community-wide health, and healthcare costs.

According to the [US Centers for Disease Control Morbidity and Mortality Weekly Report](#), “exposure to ACEs can provoke extreme or repetitive toxic stress responses that can cause both immediate and long-term physical and emotional harms. At least five of the 10 leading causes of death are associated with ACEs.”

Understanding and using people-centered practices in the context of family, community, and culture with a trauma informed lens promotes well-being and health. Having strong trauma and toxic stress prevention policies, strategies, and programs allows communities to quickly wrap-around members who are experiencing severe challenges to wellbeing. Prevention and early intervention keeps the symptoms of toxic stress and trauma from causing exponential damage. The more that access to behavioral, mental health, and physical health supports and services is engaged, the greater the likelihood of wellness even in the face of damaging experiences. The sooner healing approaches are engaged, the better able people are to experience repair and healing. An article on [The Science of Early Life Toxic Stress for Pediatric Practice and Advocacy](#) notes that in children, “toxic stress is the extreme, frequent, or extended activation of the stress response, without the buffering presence of a supportive adult. In adults, the presence of buffering relationships and supports can also act as a protective measure which prevents stress from becoming toxic. Across the lifespan, toxic stress is characterized by the inability to recover from stress and operating in an ongoing state of hyper-vigilance, rage, or depression.

- Over half of New Mexico children have experienced one or more reported adverse childhood experience.
- New Mexico has a worse-than-average rate of children experiencing no ACEs, and when it comes to children who suffer between three and eight ACEs, New Mexico and Arizona are tied for the highest rate—18 percent. The national average is 11 percent. ([Child Trends, February 2018](#))
- Nationally, 61% of adults had at least one ACE and 16% had 4 or more types of ACEs.
- Females and several racial/ethnic minority groups were at greater risk for experiencing 4 or more ACEs. ([CDC Vital Signs Report, 2019](#))
- According to [ACEs Too High](#), people with ACE scores of 4 or more are:
 - twice as likely to be smokers
 - seven times more likely to be alcoholic
 - have an increased risk of emphysema or chronic bronchitis by nearly 400 percent
 - have an increased risk of suicide and attempted suicide by 1200 percent
 - are more likely to be violent, to have more marriages, more broken bones, more drug prescriptions, more depression, and more autoimmune diseases
- People with an ACE score of 6 or higher are at risk of their lifespan being shortened by 20 years.
- In New Mexico, a [study of youth](#) detained in the juvenile justice system discovered that “nearly all of the youth whose histories were examined for this study experienced some form of adverse childhood experience in their lives, with more than 99% having experienced at least one ACE.”
- This study confirmed that juveniles in state custody in the data sample experienced numerous ACEs during their childhood, with more than 86% having experienced four or more of these traumatic events, compared to only 12% of participants in the original ACEs study.

While symptoms look different at different developmental windows and across different people, if experienced during the early years and left untreated, toxic stress may [negatively impact brain development on multiple levels](#), including executive function, regulation, sensory processing, and mental health. Toxic stress response can occur when a child experiences strong, frequent, and/or prolonged adversity—such as physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence, and/or the accumulated burdens of family economic hardship—without adequate adult support. This kind of prolonged activation of the stress response systems can disrupt the development of brain architecture and other organ systems and increase the risk for stress-related disease and cognitive impairment, well into the adult years, according to the [Harvard Center on the Developing Child](#).

A study of the [impact of ACEs in young minority, urban adolescents](#) looked at the social and structural determinants of toxic stress and trauma and how these issues unfold within families and communities. “Greater levels of adversity were associated with poorer self-rated health and life satisfaction, as well as more frequent depressive symptoms, anxiety, tobacco use, alcohol use, and marijuana use. Cumulative adversity also was associated with cumulative effects across domains. For instance, compared to individuals without an ACE, individuals exposed to multiple ACEs were more likely to have three to four more poor outcomes compared to those with no reported ACEs. No significant differences between males and females were detected. Given that the consequences of ACEs in early adulthood may lead to later morbidity and mortality, increased investment in programs and policies that prevent ACEs and ameliorate their impacts is warranted.”

Policy Options to Build Resilience

“Children are resilient, and with strong support systems and attentive families, they can often overcome the challenges of having one adverse childhood experience,” said [Amber Wallin](#), Deputy Director of New Mexico Voices for Children, a child advocacy organization. “But it’s the cumulative effects of several ACEs that are most concerning, and that’s where New Mexico fares poorly.”

The [Centers for Disease Control](#) identify primary prevention as the most important framework to increase individual and community capacity to address the public health crisis that toxic stress and trauma create. They emphasize the following ingredients to effective approaches:

- Strengthening economic supports for families (e.g., earned income tax credits, family-friendly work policies);
- Promoting social norms that protect against violence and adversity (e.g., public education campaigns to support parents and positive parenting, bystander approaches to support healthy relationship behaviors);
- Ensuring a strong start for children (e.g., early childhood home visitation, high quality childcare, preschool enrichment programs);
- Enhancing skills to help parents and youth handle stress, manage emotions, and tackle everyday challenges (e.g., social emotional learning programs, safe dating and healthy relationship skill programs, parenting skill and family relationship approaches);

- Connecting youth to caring adults and activities (e.g., mentoring and after school programs); and
- Intervening to lessen immediate and long-term harms through enhanced primary care to identify and address ACE exposures with screening, referral, and support, victim-centered services, and advancement of trauma-informed care for children, youth, and adults with a history of ACE exposures.