



The Impact of Adverse and Protective Childhood Experiences

EXTENSION

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What are Adverse Childhood Experiences (ACEs)?

Adverse Childhood Experiences (ACEs) include 10 categories of experiences before the age of 18: physical, sexual and emotional abuse; physical and emotional neglect; domestic violence; parental divorce; and household mental illness, incarceration and substance use. Having multiple ACEs impairs development and increases the risk of poor health.

The ACEs Study

In the 1990s, Drs. Vincent Felitti and Robert Anda examined ACEs in more than 17,000 adult patients.¹ Patients' ACE scores were then linked with their health records to assess the effects of ACEs on health.

Results of this research found that ACEs were:

- Common - two-thirds of the sample reported at least one ACE. More than one in five patients reported three or more ACEs.
- Co-occurring - experiencing one ACE increased the likelihood of having had at least one other ACE.
- Cumulative - as ACEs increased, so did risk of physical and mental health problems.

Having four or more ACEs was related to a:

- Seven-fold increase in the risk of alcoholism¹
- 4.5-fold increase in risk of illegal drug use¹
- 6.6-fold increase in risk of early intercourse¹
- 90% increase in risk of cancer²
- 60% increase in risk of diabetes²
- 2.2-fold increase in risk for heart disease²
- 2.4-fold increase in risk for stroke²
- 3.9-fold increase in risk for COPD²
- 4.6-fold increase in risk for depression²
- 12.1-fold increase in risk for suicide¹
- 5.5-fold increase in committing intimate partner violence¹

On average, individuals with six or more ACEs died nearly 20 years earlier compared to those with no ACEs.³

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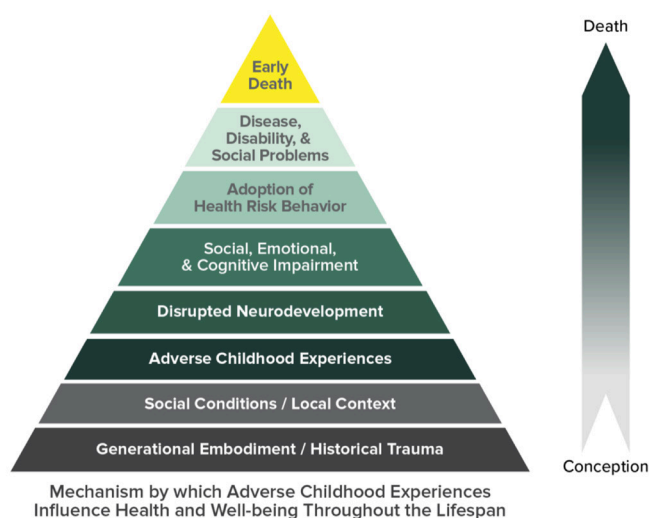
The findings from the original ACEs study have been repeated in populations across the world. A 2018 study with more than 200,000 participants found the frequency of ACEs remained stable in the last two decades. This study also found many groups with an increased risk for ACEs. These groups include women, young adults, gay, lesbian or bisexual individuals and multiracial individuals.⁴

Effects of ACEs in Children and Teens

Research on children and teens shows that 20% to 48% have experienced more than one ACE before the age of 18.⁵ Currently, Oklahoma is one of the states with the highest number of children with ACEs per capita.⁶ ACEs have a cumulative impact on children's well-being. Children with two or more ACEs are:

- Three times more likely to repeat a grade⁷
- At a 10-fold increase in risk for having a learning or behavioral issue⁷
- Twice as likely to be overweight at age 9⁷

Several child and teen populations are at an increased risk for ACEs. African American, American Indian and Hispanic children are more likely to experience ACEs than white or Asian children.^{8,9} Children in the child welfare system, the juvenile justice system and those living in poverty-stricken



and/or violent neighborhoods are more likely to have a higher number of ACEs. Nearly 100% of teens in the juvenile justice system report at least one ACE and 90% report two or more.¹⁰

The ACEs Model

The ACEs model is a pyramid with ACEs as the base leading to changes in the brain, which can result in impaired development.¹¹ This can increase the likelihood of an individual engaging in poor coping behaviors like smoking and overeating. These behaviors can increase risk for long-term health problems. The ACEs model provides an understanding of how ACEs impact health through the lifespan.

What are Protective and Compensatory Experiences (PACEs)?

Protective and Compensatory Experiences (or PACEs) are experiences that protect against risk and increase resilience.¹² Like ACEs, PACEs influence development. Unlike ACEs, this foundation provides the relationships and resources needed for healthy development.

Ten relationship and resource PACEs include:

1. unconditional love from a parent/caregiver
2. having a best friend
3. volunteering in the community
4. being part of a social group
5. having support from an adult outside of the family
6. living in a clean, safe home with enough food
7. having resources and opportunities to learn
8. engaging in a hobby
9. regular physical activity
10. having daily routines and fair rules

PACEs have been related to greater mental well-being and higher income and education. PACEs also reduce harsh parenting attitudes among adults with high ACE scores.¹³

Caring for Children and Teens with ACES

A child or teen that has experienced adverse events may engage in difficult behaviors stemming from fear or confusion. Caring for children and teens with ACES requires patience, consistency and warmth. There are ways for parents to lower stress and heal the effects of adversity.

- Parents can be emotion coaches. This involves providing supportive guidance to help children identify and regulate their emotions.¹³
- Parents should avoid the use of harsh discipline, which can be harmful.¹⁴
- Children and teens need a safe and supportive home environment with clear rules and limits.¹³
- Parents should try to create regular routines such as bedtime, play and family mealtime.¹⁴
- For teens, parents can encourage participation in activities, sports, clubs or volunteer groups.¹³
- Parents should maintain open communication with their teen, encouraging discussion and input.¹³

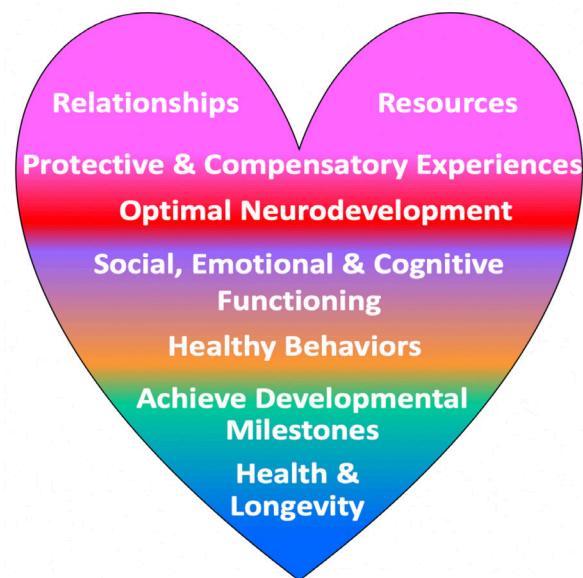
Caregivers with a History of ACEs

Parents and caregivers who have experienced ACEs can also benefit from the factors included in the PACE model.

- Forming healthy relationships with others can be healing for adults with ACEs.¹³
- Getting involved in community organizations, having and being a mentor and volunteering are ways to form new relationships.¹⁴
- Creating healthy habits, such as regular physical activity, healthy meals and enjoyable hobbies.¹⁴
- Professional counseling can be helpful in forming new coping behaviors and support healing from trauma.¹⁴

PACEs Heart Model

Protective experiences provide the basis for the PACEs heart model. Supportive relationships and resources lead to healthy development. Individuals then adopt behaviors resulting in healthy, long lives.



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The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
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- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

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