

A Review of Current ACEs Research

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Child and Family Training (C&FT)

- **C&FT** is a not for profit training organisation
- **Goal – to develop and train an accessible set of evidence based approaches, resources and tools**
- Assessment, planning , analysis and intervention; and,
- measuring outcomes of work with children and families.

Recent ACEs research

The research to be presented has been summarized in the most recent ACEs Newsletter 41 circulated by ACAMH

The link to the newsletter will be circulated – papers can be accessed -

Themes include

- **Prevalence**
- **Conceptual and methodological issues**
- **ACEs Questionnaires**
- **Mapping ACEs**
- **ACEs and Psychotic –like experiences**
- **Heavy digital use**
- **ACEs and Physical activity**
- **Resilience in the face of adversity**

Prevalence and nature of ACEs

Prevalence of adverse childhood experience items: a systematic review and meta-analyses.

- **Sheri Madigan of the University of Calgary, Canada, and colleagues in the Lancet highlight that most research on ACE prevalence has focused on overall prevalence or cumulative exposure to ACEs.**
- **Little is known about the prevalence of individual ACE items, such as abuse, neglect, and household dysfunction.**
- **Examining individual ACEs can help identify whether prevalence differs across demographic groups, geographical regions, time periods, and study designs.**
- **A systematic review was conducted, with ten meta-analyses of individual ACE items.**

Data from 1002 studies including approximately 2.6 million adults from 102 countries were included in the review –

- There was some country variability

The most common

- ACE items reported were emotional abuse (28%),
- Parental divorce or separation (24%).

The next prevalent items

- living with a household member who had a substance use problem (22%),
- emotional neglect (22%),
- physical abuse (18%),
- exposure to a household member with mental illness (17%).

Less common ACEs

- witnessing intimate partner violence in the home (15%),
- physical neglect (12%),
- sexual abuse (11%).

The least common ACE

- Having a household member who had been incarcerated represented (8%).

Conceptual and Methodological Issues in Studying Early Adversity and Development.

- **Seth D Pollak, Department of Psychology, University of Wisconsin-Madison, Madison, USA, and Karen E Smith, Annu Rev Clin Psychol. 2026** **this important position piece, outline a novel approach to understanding the impact of ACES, the Topological Approach to Adversity and Development.**

Their argument

- **Focusing on event types in trying understand adversity** including the erroneous assumption that objective events in people's lives is a sufficient measure of adversity.
- **They propose a model that prioritizes understanding** how children perceive and make sense of potential adverse circumstances, not the *type*
- **As perceptions of experience can directly trigger patterns of responses across neural and biological systems**, e.g. If personal resources are perceived as sufficient to outweigh a cardiac situational demand, increased sympathetic cardiac activation, accompanied by increased cardiac output and decreased vascular resistance. If not decreased results in cardiac efficiency
- **Developmental domains** are incorporated into this framework and highlight the necessity of developing tools that reliably capture children's own experiences of their life circumstances

Psychometric considerations of Adverse Childhood Experiences Questionnaire: Structure, validity, and the development of a supplementary instrument.

Borna Loncar from Nottingham Trent University, UK, and colleagues J Journal of Traumatic Stress explore the structure and predictive validity of the 10-item second revision ACEs-Q measure, They also report the development and validation of the ACEs-RIQ (ACEs-related impairment questionnaire), a supplementary instrument that has been developed to measure ACEs related impairment, incorporating both impact and distress items.

Findings

ACEs Q

- **ACEs-Q, which includes 7-9 non non-traditional life stressors – e.g community-violence , school – bullying, health – life threatening illness structure.**
- **A UK based adult sample (n=859) was used to examine**
- **Analysis largely supported a two-factor solution** comprising of Childhood Maltreatment (CM) and Household Challenges (HC) dimensions. and predicted depression, anxiety and stress similarly,
- **Items function as contributing indicators** that ‘form rather than reflect the construct’

ACEs-RIQA -includes expands upon the ACEs-Q by capturing impairment due to adversity rather than exposure alone which demonstrated

-Past Distress: Items assessing the emotional and psychological pain experienced during or immediately following childhood adversities.

Present Distress: Items evaluating ongoing emotional difficulties, lingering stress, or psychological suffering in adulthood rooted in those early experiences.

Present Functional Impact: daily life impairment, individual's relationships, work, social life, and overall well-being

Sample of 297 adults tested the validity of the ACEs-RIQ that predictive validity comparable to the ACEs-Q. Items ACEs-RIQ is a valid and reliable instrument.

The topology of adversities: Mapping the space of adverse childhood experiences, social positions, and risk behaviors/health outcomes among US adolescents.

Zékai (Zachary) Lu from McGill University, Canada, reports on a multiple correspondence analysis (MCA) Soc Sci Med. 2026 which maps ACEs as a multidimensional “space of adversity”.

In this paper, Lu challenges the idea that all ACEs have similar effects by mapping how different adversities cluster together among US adolescents (in grades 9-12).

Findings

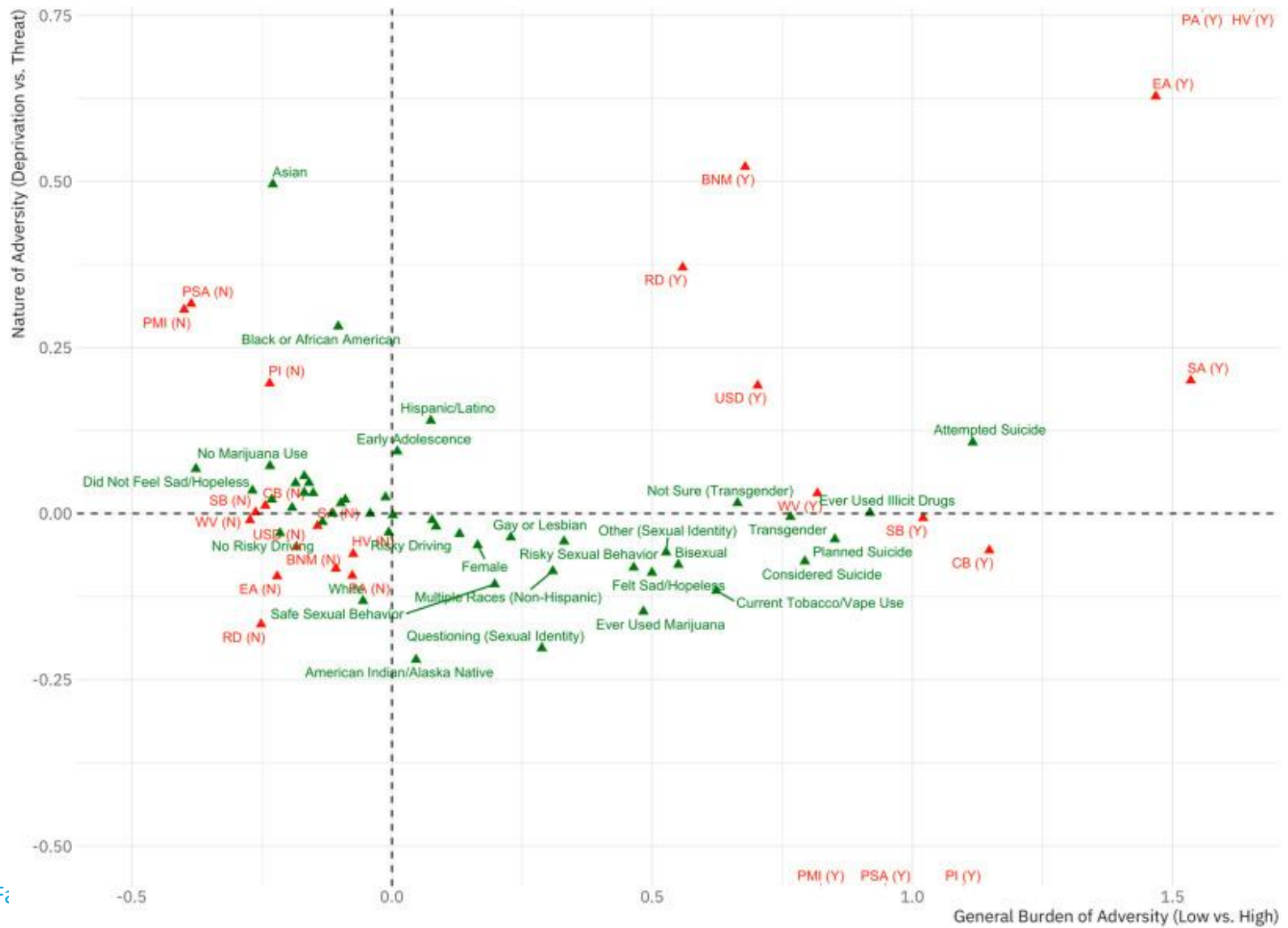
Data was taken from the 2023 National Youth Risk Behavior Surveillance System (N = 13,217).

-13 different ACEs were mapped to see how they clustered together, and how the patterns related to social characteristics and health outcomes.

- Findings showed that adversity were organised along three dimensions;

- **“General Burden of Adversity”**, cumulative risk, adolescents who have experienced multiple adversities from those who have experienced virtually none
- **“Locus of Adversity”**, social harms originating *outside* the home—from peers, school, and community environments. Its positive pole thus signifies intra-familial adversity, while its negative pole signifies extra-familial adversity. suicidality aligned more with experiences of external social harm
- **“Internal Nature of Adversity”**. distinction between ‘threat’ and ‘deprivation’
- ✓ **(positive) is Threat-based**, direct harm or danger, with *physical abuse (PA)* and *household violence (HV)*
- ✓ **(negative) Deprivation-based**, signifying the absence of resources and support for development, with *parental incarcerated (PI)* and *parental substance abuse (PSA)* as its highest **contributors**.
- **Substance use** was more closely linked to family dysfunction, **suicide** to external threat

General Burden of Adversity



The graph explained

- The plot visualizes the “space of adversity” defined by Dimension 1 (General Burden of Adversity, 23.3% of inertia) and Dimension 3 (Nature of Adversity, 9.6% of inertia).
- Red triangles represent the active variable categories (Adverse Childhood Experiences, ACEs).
- Green triangles represent the supplementary variable categories (social stratification/demographics and health behaviors/outcomes),
- Spatial proximity indicates a stronger association between categories.
Abbreviations: BNM = Basic Needs NotT Met; EA = Emotional Abuse; PI = Parent Incarcerated; HV = Household Violence; PSA = Parental Substance Abuse; PMI = Parental Mental Illness; PA = Physical Abuse; SA = Sexual Abuse; USD = Unfair School Discipline; WV = Witnessed Violence; RD = Racial Discrimination; SB = School Bullying; CB = Cyberbullying.

ACEs and psychotic – like experiences

Childhood adversity and psychotic-like experiences in adolescence: Investigating a pathway via disrupted pubertal and grey matter development

Megan Thomas Orygen, The National Centre of Excellence in Youth Mental Health, Parkville, Victoria, Australia and colleagues (JCPP 2026) state childhood adversity increases psychosis risk, but the biological mechanisms responsible remain elusive.

A possible but underexplored pathway involves altered pubertal and grey matter (GM) development.

Psychotic –like experiences

- **Psychotic-like experiences (PLEs) in adolescents exposed to adversity** are subclinical, sub-threshold symptoms of psychosis—primarily hallucinatory and delusional-like phenomena—that occur without meeting the full criteria for a diagnosable psychiatric disorder.
- **Presentation of Psychotic-Like Phenomena**
- **PLEs fall on a continuum ranging** from transient, harmless occurrences to severe, highly distressing warnings of deeper vulnerability.
- **Perceptual Distortions (Hallucinatory Experiences):** Adolescents frequently experience subtle sensory anomalies. The most common manifestation is auditory, such as visual disturbances like seeing figures, shadows, or unexplainable visions
- **Unusual Beliefs (Delusional-Like Experiences):** These present as overvalued ideas rather than fixed, unshakeable delusions. The primary presentation is **paranoia**, where the adolescent displays a heightened believing others mean them harm or are talking about them.
- **large-scale longitudinal studies** find a modest but significant correlation between the presence of PLEs and an elevated risk of both **interpersonal violence and violence directed towards objects**, a finding primarily driven by overlapping trauma and specific psychological appraisal mechanisms of threat

Findings

- **From the Adolescent Brain Cognitive Development study**, they investigated the effect of adversity at age 9–11 (indexing threat, socioeconomic deprivation and interpersonal deprivation) on psychotic-like experience's (PLEs) four years later, and the mediating role of pubertal timing and tempo.
- **They investigated the influence of puberty** on longitudinal GM change.
- **Associations** were found between all adversity types and greater PLEs,
- **PLE were mediated** by earlier pubertal timing and/or slower tempo, stronger in females, and for socioeconomic deprivation, disrupting pubertal development – Traumatic impacts
- **Puberty-related GM variation** were not found, alternative biological systems need to be considered.

The longitudinal association between adverse childhood experiences and persistence of psychotic-like experiences in young people: evidence from the ALSPAC birth cohort.

Georgie Hudson and colleagues from UCL (Psychological medicine 2026) state Adverse Childhood Experiences (ACEs) are associated with increased risk of psychotic-like experiences (hallucinatory and delusion-like experiences) PLEs, in the absence of a disorder.

From a longitudinal study of British participants aged 12-24, they examined their associations with bullying victimization, maltreatment, parental mental health problems, parental substance abuse, parental separation, and parental intimate partner violence prior to first PLE experiences.

Findings

- **From ages 12 to 24: PLEs** could be low, high persisting, and increasing.
- **Exposure to childhood maltreatment** (physical, sexual, emotional abuse, and/or neglect) was associated with approximately 1.5-fold higher risk of belonging to the increasing PLE group.
- **Exposure to bullying** was associated with almost double the risk of membership of both the increasing and high PLE groups.
- **In contrast, no statistically significant associations** were observed for parental intimate partner violence, parental mental health problems, parental substance abuse, or parental separation.
- **They stress the importance of prioritizing bullying and maltreatment** reduction as public health targets, with trauma informed work to target associated PTSD.

Heavy digital use and ACEs

Adverse Childhood Experiences, Positive Childhood Experiences, and Digital Media Use among Children and Adolescents in the United States.

- **Elizabeth Crouch and colleagues from the University of South Carolina, Columbia, USA (Journal of child & adolescent trauma. 2026) that Compensatory internet use has been demonstrated to be a potential coping mechanism for stressors, which may lead to heavy digital media use.**
- **This study used cross-sectional data from the 2021–2022 National Survey of Children’s Health to examine family-based factors, the prevalence of adverse and positive childhood experiences (ACEs and PCEs) and how these rates may vary by three categories of digital media use: light use (less than two hours on a typical weekday), moderate use (2–3 h on a typical weekday), and heavy use (four or more hours on a typical weekday).**
- **ACEs were defined - economic hardship, parental divorce/separation, parental death, parental incarceration, household violence, household mental illness, household substance misuse, racial/ethnic mistreatment, and sex/gender discrimination.**
- **PCEs included after school activities, community volunteer, guiding mentor, connected caregiver, safe neighbourhood, supportive neighbourhood, and resilient family**

Findings

Heavy digital media use is common, with 30% of the school-age children and adolescents engaging in digital media use for four or more hours per day.

Children who engaged in heavy digital media use were more likely to report each type of ACE than children who engaged in light digital media use.

Alternatively, children who engaged in heavy digital media use were less likely to report each type of PCE than children who engaged in light digital media use.

Experiencing four or more ACEs had a higher odd of heavy digital media. However, participating in after school activities, volunteering in their community, and having a guiding mentor, are less likely to have heavy digital media use.

ACEs and Physical Activity

Lifetime Physical Activity Moderates the Neural Effects of Childhood Adversity on Resting-State Functional Connectivity

Lemya Zehirlioglu Department of Psychosomatic Medicine and Psychotherapy, Central Institute of Mental Health, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany **and colleagues** (Biological psychiatry Cognitive neuroscience and neuroimaging. 2026); **that ACEs represent a strong influence on the developing brain**

They profoundly affect corticolimbic circuits -the brain's primary network for regulating emotions, stress, and behavioural responses, thereby contributing to vulnerability for mental disorders. They hypothesise that Individual differences in resilience-related behavior, such as physical activity, may mitigate these effects.

Findings

- **This retrospective study** examined whether self-reported lifetime physical activity (LPA) modulates the relationship between ACEs and resting-state functional connectivity (rs-FC) of key limbic regions among 75 adults.
- **Interaction models** ($\text{ACE} \times \text{LPA}$) were constructed for the amygdala, hippocampus, and anterior cingulate cortex.
- **Higher activity levels** were linked to connectivity profiles consistent with potential neural resilience to early adversity,
- **The most significant protective benefits** were found in individuals who achieved 150 to 390 minutes of physical activity per week.
- **These findings** highlight physical activity as a modifiable lifestyle factor associated with neurobiological adaptation following early adversity.

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Resilience in the face of adversity

Resilience in the face of adversity: Adverse and benevolent childhood experiences in irritable bowel syndrome

Amulya Anumolu. Cape Fear Valley Health, Graduate Medical Education, Fayetteville, NC, US and colleagues J Psychosom Res. 2026; report Irritable Bowel Syndrome is a recognized Disorder of Gut-Brain Interaction (DGBI). associated with higher levels of ACEs,

This acts as a severe biological stressor that alters how the brain and gut communicate. However, little is known about protective factors.

This study aims to investigate whether Benevolent Childhood Experiences (BCE), such as favourable resources and relationships during childhood, can mitigate the risk of IBS associated with ACEs.

Patients with a diagnosis of IBS completed the ACE Questionnaire for Adults, the BCE Scale, having a predictable home routine, a safe neighbourhood, at least one comforting adult, or supportive peer relationships and the Gastrointestinal Symptom Rating Scale (GSRS).

Findings

- **A total of 100 patients with IBS and 192 individuals without IBS participated.**
- **Logistic regression** showed an interaction of ACE and BCE.
- was almost twice as likely to occur in the IBS group. **Low BCE, and high ACE**
- **No difference in IBS vs non-IBS** for the high ACE and high BCE, indicating a protective effect of BCE.
- **These results imply** that while ACE can negatively impact gastrointestinal symptoms, supportive interpersonal relationships during childhood may buffer these adverse effects and potentially prevent the onset of IBS.

