

sample of 1,382 same sex twins (52% female, 65% monozygotic). Twin pairs were evaluated at age 17, 20, 24 and 29 and were participants of the Minnesota Twin Family Study (Iacono, Carlson, Taylor, Elkins & McGue, 1999). Participants were recruited through their identification using public birth certificates for twins born from 1972-1984. Inclusion criteria were that twins were biological to the parents with whom they lived and that the families resided near the study center's location. Participating twins were required to be both physically and mentally healthy. A total of 83% of the twins who were located and eligible participated.

**Results and Discussion:** A gene by environment interaction was present at the first measurement point, when the twins were 17 years old. The greater the association with antisocial peers, the more strongly the genetic influence on substance use disorders and antisocial behaviour was expressed. This interaction was no longer present at any other time-point over the course of the study for antisocial behaviour, although it persisted for substance use disorders, up to the age of 29 which was the final time-point in the study. It was concluded that adolescence in particular is a critical period for the onset of externalizing behaviour problems that is modifiable in part by the nature of the environment. Expression of genetic vulnerability is at its greatest when paired with a high-risk environment, and this persists for substance use into adulthood.

**Key Reference:**

**Iacono, W. G., Carlson, S. R., Taylor, J., Elkins, I. J., & McGue, M. (1999).** Behavioral disinhibition and the development of substance-use disorders: Findings from the Minnesota Twin Family Study. *Development and Psychopathology, 11*, 869–900.

## Association between childhood adversity and a diagnosis of personality disorder in young adulthood: a cohort study of 107,287 individuals in Stockholm County

**Björkenstam, E., Ekselius, L., Burström, B., Kosidou, K., Björkenstam, C. (May 2017)**

*European Journal of Epidemiology,*

[doi:10.1007/s10654-017-0264-9](https://doi.org/10.1007/s10654-017-0264-9)

**Aim:** To evaluate the role of cumulative childhood adversity (CA) and later development of personality disorder (PD) alongside the influence of school performance and childhood mental illness in a cohort of the Swedish population from Stockholm County born 1987-1991. By determining modifiable risk factors the authors aimed to facilitate early intervention and curtail the onset and severity of PDs and their associated suffering.

**Background:** It is generally accepted that CA, particularly child maltreatment, has a role in the later development of PD. The nature and scope of CA and the specificity of later PD is largely unknown, although multiple studies indicate that where CA exists, it is rarely of one single event or form, but rather tends to occur in clusters over time. Experience of CA is associated with poor school performance and risk of emotional and behavioural problems during childhood and adolescence. In the current study the authors evaluated the presence of seven different types of CA up to age 14. These were: death in the family, crime by parents, substance abuse and mental illness in parents, family separation and single parent-hood, social assistance and housing instability. Participants were evaluated until they turned 18 or the end of the study (Dec 31, 2011).

**Method and Procedure:** Participant data were obtained from the Medical Birth Register pertaining to individuals born in Stockholm County from 1987-1991. Exclusion criteria were adopted children, those who died before they turned 18, those who emigrated out of the region, and those with developmental disabilities by age 18. Swedish personal identity numbers were used to link birth records with death registers and patient registers (to determine use of psychiatric services) as well as an administrative health care database to access use of publically funded care in the region from the year 1997 onwards. Income and social benefits were linked by similar registries. Demographic information including place of residence age and sex are all accessible through Sweden's Total Population Register. Labour Market Studies registers and Court Conviction registers were used to determine socio-economic status as well as parental criminality, and the National School Register records were accessed for information on academic achievement. Family status was obtained through the Multi-Generation register that logs parent-child relationships. PD status was determined through records on the healthcare registries. CA was defined as occurring through the seven aforementioned forms for the purpose of the study.

**Results and Discussion:** There were positive associations between cumulative CA and later PD in a dose-response pattern such that greater CA led to increased likelihood of PD diagnosis by young adulthood. A total of 0.7% of the sample (770 participants) had PD diagnoses, with those exposed to 3+ CAs having the greatest likelihood of having a PD. Female participants were mostly likely to be diagnosed with a PD (78%), which were predominantly Cluster B (62%) as evaluated by ICD-10. Poor school performance and childhood mental illness also increased the likelihood of a PD diagnosis, but not to the same extent as cumulative CA. It is well understood that lifetime morbidity and overall mortality rates are higher amongst individuals with PDs compared to the general population. It is also well understood that PDs are treatable conditions. The authors suggested that school and health services may curtail the negative life-course of vulnerable children and youth by closely attending to declining academics, emotional and behavioural problems and CA, ideally as soon as these are detected.

## What have we changed our minds about: Part II. Borderline personality disorder as a limitation of resilience

**Fonagy, P., Luyten, P., Allison, E., & Campbell, C.** (April 2017)  
*Borderline Personality Disorder and Emotion Dysregulation*, 4,  
Doi: [10.1186/s40479-017-0062-8](https://doi.org/10.1186/s40479-017-0062-8)

**Aim:** To review the second of a two-part publication the transitions in thinking related to developmental psychopathology, and the acquisition of mental illness with emphasis on personality disorders (PDs). The emphasis in part two is upon understanding the origins of the lack of resilience in social communication and attachment relationships from the framework of evolution and developmental psychopathology.

**Background:** Continuing from Part 1, the authors observe that a common factor amongst individuals with PDs is apparent inability to positively adapt after experiencing adversity. The persistence of distress in BPD and other PDs is a hallmark characteristic of these disorders, which the authors propose to be caused by lack of resilience. Lack of resilience is in turn said to be generated in part by limited ability to positively re-appraise socially stressful events, which additionally imposes limitations on the ability to mentalize. These challenges are explained in part by evolutionary adaptation, childhood psychopathology, and in a different manner than previously thought by these authors, attachment.