

Genetic factors influence the relationship between the home environment and onset of depressive symptom

Clinical depression is prevalent in adolescence, but how depression emerges and the nature of the early risk factors is unknown. Insight has now come from a study performed by researchers at King's College London, who generated longitudinal child-report and parent-report data from >5,000 twin pairs enrolled in the UK-representative Twins Early Development Study.

They investigated how the relationship between depressive symptoms (determined using the short Mood and Feelings Questionnaire at 12 and 16 years) and aspects of the home environment (based on reports of parental discipline, parental feelings and household chaos at 9 and 14 years) changes over middle-to-late childhood. This twin study design allowed the researchers to use the differences in genetic relatedness between monozygotic and dizygotic twin pairs to estimate the relative contributions of genetic, shared environmental (parental influence, neighbourhood characteristics, socioeconomic status) and unique environmental factors to depression symptoms. The influence of genetic factors on the association between the home environment and depressive symptoms increased from childhood (30%) to adolescence (40%), whilst the influence of shared environmental factors decreased (from 70% to 48%). Unique environmental factors accounted for just 12% of the association between the home environment and depressive symptoms, only in adolescence.

The researchers thus propose that changes in the relationship between the home environment and depressive symptoms primarily occur as a result of a shift in influence of different etiological factors rather than the emergence of adolescence-specific factors.

Hannigan, L.J., McAdams, T.A. & Eley, T.C. (2017), Developmental change in the association between adolescent depressive symptoms and the home environment: results from a longitudinal, genetically informative investigation. J Child Psychol Psychiatr. 58: 787-797. doi:[10.1111/jcpp.12689](https://doi.org/10.1111/jcpp.12689)

Glossary

Mood and Feelings Questionnaire (MFQ): *A questionnaire containing 33 questions to capture the symptoms included in the DSM-IV criteria for major depressive disorders. It is considered an appropriate assessment tool for depression symptoms in children aged range 8–18 years, but not a method to diagnose depression. The questions assess mood and anhedonia, tiredness, restlessness, concentration difficulties, and several aspects of negative self-evaluation. A high MFQ suggests more severe depressive symptoms.*