



## What role does genetic risk play in shaping the developmental patterns of depressive symptoms?

Depression with onset during childhood or adolescence is associated with a worse course of illness than depression with onset during adulthood.<sup>1</sup> However, the role of genetic factors in the risk for childhood or adolescent onset depression is unclear. Now, Alexandre Lussier and colleagues in the USA have examined developmental patterns of depressive symptoms and the influence of genetic factors.



*Dr Jessica Edwards*

*Jessica is a freelance editor and science writer, and has been writing for the Bridge since December 2017.*

# Fluctuations in symptoms between different ages may reflect environmental or learned coping mechanisms, rather than genetic risk

Alexandre Lussier

Specifically, Lussier *et al.* examined the relationship between genetic risk for depression and depressive symptom trajectories in >7,000 youths involved in the Avon Longitudinal Study of Parents and Children across a 13-year period from childhood to adolescence — one of the longest periods studied to date. By constructing trajectories of depressive symptoms across development, Lussier *et al.* were able to classify youth into six classes: high/renitent (27.9%), high/reversing (9.1%), childhood decrease (7.3%), late childhood peak (3.3%), adolescent spike (2.5%), and minimal symptoms (49.9%).

We found that genetic risk for depression can differentiate between youths with high or low symptoms during early-adolescence, highlighting a period when symptoms linked to genetic risk for depression may be more likely to emerge”, says Lussier. “What’s more, this association holds true regardless of age-associated patterns of responding (i.e., changes due to life events). This means that fluctuations in symptoms between different ages may reflect environmental or learned coping mechanisms, rather than genetic risk”.

Overall, it seems that genetic risk for depression might influence the trajectory of symptoms across development. Going forward, Lussier *et al.* hope that this finding will ultimately lead to the identification of the genetic risk factors that might help identify those at higher risk for early-onset depression. However, more research is needed to understand the environmental and biological mechanisms driving these depressive symptom trajectories.

## Referring to:

Lussier, A. A. *et al.* (2020), *Genetic susceptibility for major depressive disorder associates with trajectories of depressive symptoms across childhood and adolescence.* *J. Child Psychol. Psychiatr.* doi: [10.1111/jcpp.13342](https://doi.org/10.1111/jcpp.13342).

## References:

<sup>1</sup> McLaughlin, K.A. *et al.* (2012). *Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents.* *Arch. Gen. Psychiatry.* 69, 1151-1160. doi: [10.1001/archgenpsychiatry.2011.2277](https://doi.org/10.1001/archgenpsychiatry.2011.2277)

## Related links



**ACAMH Blog: ACAMH Topic Guide: Depression**



**ACAMH Podcast: Investigating the interplay of genetics and environment on development, C Lewis**



**JCPP Annual Research Review: Defining and treating pediatric treatment-resistant depression, JB Dwyer et al**

To visit any of the links related to this article, [click here to go to the ACAMH website.](#)