

Genetic variants for autism linked to higher rates of self-harm and childhood maltreatment

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People with a higher genetic likelihood of autism are more likely to report higher childhood maltreatment, self-harm and suicidal thoughts

according to a new study by researchers at the University of Cambridge. A better understanding of these issues is critical to improving wellbeing in autistic people. The results are published today in *Molecular Psychiatry*.

Previous studies by the Cambridge team established that autistic individuals experience higher levels of [self-harm](#), including [suicidal thoughts](#) and feelings, and higher rates of childhood [maltreatment](#). This new study shows that the findings hold true even for those with a higher genetic likelihood of autism rather than a formal diagnosis.

The team calculated the genetic likelihood for autism in 100,000 individuals from the UK Biobank Study who had their DNA analysed and who had also provided self-reported information about childhood maltreatment, [suicidal ideation](#), and self-harm. They found that individuals with higher number of genetic variants associated with autism are more likely to report childhood maltreatment, self-harm and suicidal ideation. Those with the highest genetic predisposition to autism on average have a 28% increase in [childhood](#) maltreatment and a 33% increase in self-harm and suicidal ideation compared to those with the lowest genetic predisposition to autism.

Dr. Varun Warriar, who led the study, said: "While we have found an association between a genetic likelihood for autism and adverse life events, we cannot conclude the former causes the latter. We suspect this association reflects that genes partly influence how many autistic traits you have, and some autistic traits such as difficulties in social understanding may lead to a person to be vulnerable to maltreatment. This research highlights the risks of such adverse outcomes for those with a high number of autistic traits, if adequate safe-guarding and support aren't provided."

Professor Simon Baron-Cohen, Director of the Autism Research Centre

at Cambridge, said: "This new study extends our earlier work by showing that individuals who carry more of the genes associated with [autism](#) have higher risks for maltreatment and self-harm. Our work highlighting unacceptably high rates of suicide in autistic people was published 5 years ago, yet almost no new support has been provided. Governments need to provide far greater support for autistic individuals and for those with a high number of [autistic traits](#)."

He added: "Autistic individuals may need a variety of interventions—there's no 'one size fits all' - and these may include an individual support worker, a mentor, opportunities to build social and communication skills and self-confidence through activities that the person enjoys, peer support groups, and supported employment schemes. Schools may also need to increase safe-guarding given the risks of victimisation."

More information: Varun Warriar et al, Childhood trauma, life-time self-harm, and suicidal behaviour and ideation are associated with polygenic scores for autism, *Molecular Psychiatry* (2019). [DOI: 10.1038/s41380-019-0550-x](#)

Provided by University of Cambridge

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