Children exposed to adverse childhood experiences (ACEs) have an elevated risk of mental health problems, but it is unclear whether these associations reflect genetic confounding. We tested (1) whether children with genetic liability to psychopathology are more likely to experience ACEs, and (2) the extent to which the associations between ACEs and mental health are genetically confounded. Participants were 6,411 children from the Avon Longitudinal Study of Parents and...
Children (ALSPAC). ACEs (including maltreatment, domestic violence, and parental psychopathology, substance abuse, criminality, and separation) were prospectively measured through parent reports at multiple assessments between birth and age 9. Internalizing and externalizing problems at age 9 were assessed through parent reports on the Development and Wellbeing Assessment. We derived polygenic scores for a range of psychiatric disorders. Children with greater genetic liability to psychopathology had a small elevation in risk of ACEs (pooled odds ratio=1.05, 95% CI=1.01-1.09). Measured polygenic scores accounted for a very small proportion of the associations between ACEs with internalizing problems (pooled average across ACEs=3.6%) and externalizing problems (pooled average=4.8%). However, latent polygenic scores capturing SNP heritability in mental health outcomes explained a larger proportion of the associations between ACEs with internalizing problems (pooled average=63%) and externalizing problems (pooled average=17%). Risk of mental health problems in children exposed to ACEs is partly, but not completely driven by pre-existing genetic liability to psychopathology. Assuming the absence of nongenetic confounding, these findings are consistent with a partly causal effect of ACEs on mental health.

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