

Genetic and environmental influences on the relationship between peer alcohol use and own alcohol use in adolescents

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ABSTRACT

Aims Genetically influenced aspects of adolescent behaviour can play a role in alcohol use and peer affiliation. We explored the correlations between friends' alcohol use and adolescent own use with a genetically sensitive design. **Design** Genetic and environmental factors were estimated on adolescent reports of their friends' alcohol use and their own use and problem use of alcohol. The correlations between the genetic and environmental factors that influence friends' alcohol use and adolescent own alcohol use and problem use were also estimated. **Participants** A total of 862 twin pairs aged 11–17 years sampled from the UK population-based Cardiff Study of All Wales and North-west of England Twins (CaStANET). **Measurements** Data on adolescent own alcohol use and problem use and the alcohol use of their three best friends were obtained using self-report questionnaires. **Findings** A significant genetic influence was found on adolescent friends' alcohol use (about 30%). Significant correlations of 0.60 and 0.70 were found between the genetic influences on friends' alcohol use and adolescents' own use and problem use of alcohol. Common environmental influences were almost completely correlated for friends' alcohol use and adolescents' own alcohol use and problem use (0.91 and 0.94). **Conclusions** There is considerable overlap in the common environmental and genetic factors that contribute to the relationship between adolescents' own alcohol use and that of their friends. These findings contribute to understanding of the mechanisms by which friends' alcohol use influences adolescent drinking behaviour.

Keywords Adolescent, alcohol use, friends, genetic, gene-environment influences, peers, twin study.

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