Interplay of genes, gender, and environment crucial to developing addiction

Studies of substance abusers have long hinted that some people are at least partially genetically predisposed to addiction. This certainly doesn't mean they are doomed to become addicts, but it may mean that some vulnerabilities to substance abuse may be exacerbated by genetics. Now researchers have found evidence that environmental factors also have a huge, though distinct, influence on men and women.

A study led by Brea Perry, a medical sociologist at Indiana University, has found that there is a complex three-way interplay between gender, genes and social environment that can determine how likely a person is to take up substance abuse, such as a drug habit or alcoholism.

"It is likely that gene-environment interactions may operate differently for men and women, perhaps because they experience some aspects of the social world in divergent ways," Perry explained in a recent statement.

The sociologist used data from the Collaborative Study on the Genetics of Alcoholism, a study funded by the National Institutes of Health, to map genes associated with alcohol dependence and other easily identified substance abuse problems.

Looking at more than 4,307 adults from over 1,000 families, Perry targets the GABRA2 gene, which is related to increased sensitivity to stressful or emotionally charged social environments.

Interestingly, Perry's analysis of these individuals found that among sensitive men, strong family ties helped them resist turning to substance abuse. However, for women similar ties may have actually encouraged a destructive habit.

Read the full, original story: Genes, gender, or environment? What makes an addict