

**Eating Disorder and Substance Use Disorder Comorbidity in Individuals from Families Densely Affected with Substance Use Disorders**

Eating disorders (EDs) include anorexia nervosa (AN), bulimia nervosa (BN), and binge-eating disorder (BED). These disorders have no pharmacological treatment available, yet have the highest mortality of all psychiatric disorders, with mortality risk as high as five times greater than in unaffected individuals. Over 3.3 million healthy life years are lost annually to EDs worldwide. EDs can be thought of as a spectrum between restricted-type (e.g., AN) and impulsive-type (e.g., BN and BED). The prevalence of eating disorders is different depending on disorder (AN, BN, BED), as well as age, sex, and race/ethnicity, with current clinical criteria often failing to diagnose EDs in non-White individuals. Additionally, EDs are often comorbid with substance use disorders (SUDs), complicating treatment and increasing morbidity and mortality. Prevalence of ED and SUD comorbidity has been shown to be as high as 27%, 37%, and 23% in individuals with AN, BN, and BED, respectively. Other studies have shown that individuals with BN and BED are more likely to experience comorbid SUDs than individuals with AN, and that women with binge-eating/purging subtype of AN report more substance use/dependence than women with the restricting subtype of AN. This may indicate a link between binge behavior and substance use. Using data from the Collaborative Study on the Genetics of Alcoholism (COGA) (N=5912), comprising families densely affected with SUDs and comparison families, diverse in race/ethnicity, sex, and age, we examined rates of EDs and comorbid SUDs. In addition, we investigated whether potential differences of these rates between self-reported race/ethnicity, sex, and age exist. We hypothesize that individuals with impulsive-type EDs (BN, BED) will show higher rates of comorbidity with SUDs compared to individuals with restricted-type EDs (AN). Findings from this study could inform early intervention, management, and treatment efforts for eating disorders.