Genome Wide Association Study (GWAS) between Attention Deficit Hyperactivity Disorder (ADHD) and Obsessive Compulsive Disorder (OCD).

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DOI: https://doi.org/10.3389/fnmol.2017.00083

Abstract:

Objective:
The aim of this study was to identify any potential genetic overlap between attention-deficit hyperactivity disorder (ADHD) and obsessive compulsive disorder (OCD). We hypothesized that since these disorders share a sub-phenotype, they may share common risk alleles. In this manuscript, we report the overlap found between these two disorders.

Methods:
A meta-analysis was conducted between ADHD and OCD, and polygenic risk scores (PRS) were calculated for both disorders. In addition, a protein-protein analysis was completed in order to examine the interactions between proteins; p-values for the protein-protein interaction analysis was calculated using permutation.

Conclusion:
None of the single nucleotide polymorphisms (SNPs) reached genome-wide significance and there was little evidence of genetic overlap between ADHD and OCD.