Autism is a clinically heterogeneous disorder that affects brain development and function. Patients are characterized by the triad of abnormal social development, abnormal language development, and rigid, repetitive behavior. Despite extensive research into genetics and limited research on environmental causes of autism, there are still no known etiologies for autism spectrum disorders, apart from a select number of monogenic diseases. The purpose of this study was to identify potential environmental risk factors for autism in a previously unstudied population of autistic patients. In addition, three generation pedigrees were obtained in order to assess the family history of other neuropsychiatric and cognitive disorders and their relationship to the autistic phenotype. A total of 44 autistic probands and 36 controls were included in the study on pregnancy factors. Of these, pedigrees were obtained for 44 autistic participants and 30 control participants.

Data analysis demonstrated that vaginal bleeding during pregnancy was the only statistically significant risk factor between participants in the autistic and control groups. Mothers who had vaginal bleeding during their pregnancies were 9.8 times more likely to have an autistic child. These results confirm the findings of a number of previous studies. Interestingly no other pregnancy risk factor or exposure was found to have a significant correlation with autism after controlling for confounding variables.

Family history data showed that attention deficit disorder (p < 0.004) and learning disabilities (p < 0.021) were significantly more likely to be present in the families of autistic probands than controls when controlling for age, gender, and relationship to the proband.

These results suggest that environmental factors, such as vaginal bleeding, do play a role in autistic disorder. Whether these factors are causal or merely indicators of increased risk for autism remains to be determined. In addition, our family history data imply that attention deficit disorder and learning disorders may be part of the broader
autism spectrum. Genes involved in ADD and learning disabilities may contribute to the autism phenotype.