Genes play larger role in autism than previously thought

Autism is caused by genetic make-up in 74-98 percent of cases, a Medical Research Council study of 516 twins indicates.

The King's College London team said 181 of the teenagers had autism, but the rate was far higher in the identical twins, who share the same DNA.

The researchers told JAMA Psychiatry tens if not hundreds of genes were involved, and they do not rule out environmental factors entirely.

Both twins in each pair had been raised by their parents in the same household.

The implications of the study could lead to more precise diagnoses and tratments for patients with autism, which is tricky to diagnose. It is a spectrum of conditions rather than a single disorder, and its severity can vary widely from person to person.

Researcher Dr. Francesca Happe said, although not perfect, all the evidence pointed to genes playing a bigger role in autism than previously thought.

"Our findings suggest environmental factors are smaller, which is important because some parents are concerned whether things like high pollution might be causing autism.

"Some people think there might be a big environmental component because autism has become more common in recent years but that's happened too fast for genetics to be a probable cause.

"The main consensus now is that the rise in diagnosis has more to do with increased awareness of the condition."

Happe said what might have been labelled as a learning disability in the past was now being correctly diagnosed as autism.

She said lots of scientists were working to determine which precise genes were involved in autism and whether they were inherited.

"There may be perhaps hundreds of genes that contribute to autistic traits," she said.

Dr. Judith Brown, of the National Autistic Society, said: "Autism is a highly complex story of genes not only interacting with other genes, but with non-genetic factors too.

Read full, original article: Autism is largely down to genes, twin study suggests