Lost your virginity early? Your genes might be to blame

TNN | Apr 20, 2016, 11.39AM IST

Turns out that losing virginity isn't dependent only on your personality, culture, and brought up, your genes play a vital role too.   
  
A study of over 380,000 people, published in the journal Nature Genetics, has identified gene variations that influence the age of puberty, first sexual intercourse and first birth.   
  
Earlier studies have shown that first sexual intercourse at an early age is linked to one's adverse educational achievements, physical health and mental well being. Not just these, but peer-pressure, socio-cultural factors, parental attitudes and supervision, also played a pivotal role.

The recent gene trawl, however, says that [Genetic](http://timesofindia.indiatimes.com/topic/Genetic-(designer)) factors that act on biological mechanisms, such as the timing of childhood physical maturity and personality, also contribute to the timing of sexual behaviour.   
  
To identify the gene differences which influence timing of sexual behavioural, researchers at the Medical Research Council (MRC) Epidemiology Unit at the University of Cambridge analysed the genetic data of 59,357 men and 66,310 women aged between 40 and 69 years old who were part of UK Biobank, a national study for health research.   
  
The analysis identified 38 gene variants that were associated with age at first sexual intercourse. Several of these gene variants were associated with earlier puberty timing and higher body mass index, but others were located in or near genes previously implicated in estrogen signalling, brain development and neural connections, and their analysis uncovered associations with a range of reproductive behaviours, such as age at first birth and number of children.   
  
Dr John Perry, a senior investigator scientist at the MRC Epidemiology Unit, and a lead author of the paper, said, "While social and cultural factors are clearly relevant, we show that age at first sexual intercourse is also influenced by genes which act on the timing of childhood physical maturity and by genes which contribute to our natural differences in personality types."   
  
He added, "One example is a genetic variant in CADM2, a gene that controls brain cell connections and brain activity, which we found was associated with a greater likelihood of having a risk-taking personality, and with an earlier age at first sexual intercourse and higher lifetime number of children."   
  
In previous studies by the same team, it was found that an earlier age at puberty is linked to increased long-term risks for diseases such as diabetes, heart disease and some cancers.   
  
Dr Ken Ong, a paediatrician and programme leader at the MRC Epidemiology Unit, and a lead author on the paper, said, "We have already shown that early puberty and rapid childhood growth adversely affect disease risks in later life, but we have now shown that the same factors can have a negative effect at a much younger age, including earlier sexual intercourse and poorer education attainment."   
  
The investigators hope that future preventive efforts to delay puberty in young children, for example by avoiding excess childhood weight gain, will have benefits both on reducing adolescent risk-taking behaviours and for their future health as adults.   
  
The research was published in MRC Epidemiology Unit, University of Cambridge.