Prenatal & early origins of childhood health & psychopathology

There is evidence that early experiences including in the prenatal period can have long lasting effects on health, including child mental health. We use a number of different designs to investigate the influence of these early risks on child psychopathology such as child ADHD and depression. These include epidemiological, high risk family and genetically informative studies.

Studies of children born following assisted conception:

Around 1 in 7 couples may experience difficulty or delay in conceiving. In vitro fertilisation (IVF) is becoming an increasingly common means of conception. Current estimates suggest that between 1 and 4 of every 100 (1-4%) births in Europe are now due to IVF. A proportion of IVF births will involve the use of egg or sperm from a donor, and some will involve surrogacy. Children conceived with IVF may be genetically related to both parents (homologous IVF), the mother only (sperm donation), the father only (egg donation), or to neither parent (embryo donation). With gestational surrogacy, both parents are genetically related to the child but a surrogate experiences the pregnancy.

The purpose of this study is to help identify what it is about children’s early life experience that explains their health and behaviour. For example, the ways in which children manage stressful situations and their concentration levels. There may be many influences on these behaviours, some to do with children’s genes, some to do with experiences before children are born and others to do with experiences later in childhood. By studying different families we will be able to learn more about the ways the early womb environment and childhood experiences affect children’s later health and well-being.

Selected findings and outcomes:

Patterns of psychological adjustment for children born following assisted conception appear similar to those of other children.

Prenatal smoking and stress show a clear relationship with offspring lower birth weight and prematurity. Pre- and postnatal stress may influence offspring anxiety and antisocial behaviour. However, the association between prenatal smoking and stress with ADHD might be explained by inherited and other confounds.

This work highlights the need to utilise different research designs to stringently test the contribution of prenatal risk factors to child psychopathology.

Selected published papers


