

New study shows good mental health in young adults born after assisted reproduction

December 15 2021



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Use of assisted reproductive techniques (ART) does not lead to poorer mental health in children across adolescence and young adulthood, according to a large observational study led by researchers at Karolinska

Institutet in Sweden. The study, published in *JAMA Psychiatry*, found a slightly higher risk of obsessive-compulsive disorder for those born after ART but this was explained by parental background factors.

"These findings are overall reassuring with respect to the psychiatric [health](#) of adolescents conceived with ART, a group that we are now for the first time able to follow into [early adulthood](#)," says the study's corresponding author Chen Wang, doctoral student at the Department of Medical Epidemiology and Biostatistics at Karolinska Institutet.

Since 1978, more than 9 million children have been born following the use of assisted reproductive techniques. In-vitro fertilization (IVF) has so revolutionized the treatment of infertility that Robert G. Edwards was awarded the Nobel Prize in Physiology or Medicine in 2010 for the development. Prior studies have however linked the use of ART to some undesired birth outcomes such as an increased risk of birth defects, preterm birth, and low birth weight.

The knowledge about the long-term health of children conceived with ART is still limited. Now, researchers at Karolinska Institutet have conducted the first major study on mental health in [young adults](#) born in Sweden following ART.

Using individually linked population-based data, the researchers were able to follow more than 1.2 million people born in Sweden between 1994 and 2006, including 31,565 participants conceived with ART. The participants were between 12 and 25 years of age when the study concluded. The researchers also had access to registry-based information on clinical diagnoses of mood disorders such as major depression, anxiety, obsessive-compulsive disorder (OCD) or suicidal behavior.

Aside from the potential effects of the intervention, certain traits and characteristics that may be more common in couples that undergo ART

could also play a role in the long-term health of their children. In the study, the researchers therefore took particular care to separate the role of the treatment from the influence of a wide range of parental background factors, such as infertility, maternal and paternal age, education, and [mental health](#) history.

"In the end, we did not find that use of ART had any adverse influence on children's psychiatric health as they go through adolescence. Individuals conceived with ART had a slightly elevated risk of OCD compared with the [general population](#) but this was explained by differences in the background of the parents, as this excess risk was no longer present after adjustment for various parental characteristics," says last author Sara Öberg, associate professor at the Department of Medical Epidemiology and Biostatistics at Karolinska Institutet.

More information: "Long term follow-up of psychiatric disorders in children and adolescents conceived by assisted reproductive techniques in Sweden" *JAMA Psychiatry* (2021). DOI: 101001/jamapsychiatry.2021.3647

Provided by Karolinska Institutet

Citation: New study shows good mental health in young adults born after assisted reproduction (2021, December 15) retrieved 4 February 2024 from <https://medicalxpress.com/news/2021-12-good-mental-health-young-adults.html>

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