

Fertility treatment outcomes can be significantly influenced by mother's ethnicity

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Maternal ethnicity is a significant determinant of successful outcomes after fertility treatment, suggests a new study published today (30 October) in *BJOG: An International Journal of Obstetrics and Gynaecology*.

Researchers, from Nottingham University's Research and Treatment Unit in Reproduction (NURTURE), conducted a study to assess the relationship between the ethnicity of patients and the clinical success of their [fertility treatment](#).

The UK study included 1,517 [women](#) (85.1% White Europeans and 14.9% from an ethnic minority group) undergoing their first cycle of fertility treatment, including in-vitro fertilisation (IVF) or intracytoplasmic sperm injection (ICSI).

The data, gathered between 2006 and 2011, were then analysed for live birth outcomes (defined as a viable infant born after 24 weeks of gestation) and showed that when compared to White European women, the live birth rates of ethnic women were significantly lower, 43.8% vs 35%.

A similar trend was also found for clinical pregnancy rates and implantation rates, with White European women again showing significantly higher rates than women from ethnic minorities, 47.9% vs 38.5% and 37.4% vs 22.6% respectively.

Additionally researchers identified that results further varied within the ethnicity cohort itself, identifying different live [birth rates](#) in three distinct subgroups, 21.4% for Middle East Asian women, 23.3% for African-Caribbean women and 38% for South East Asian women.

The paper concludes that these results will help counsel couples about their realistic probabilities of a positive outcome after fertility treatment.

Dr Walid Maalouf from NURTURE, Division of Child Health, Obstetrics and Gynaecology, Faculty of Medicine & Health Sciences University of Nottingham, and lead researcher of the paper said:

"Our data indicates that [live birth](#) rates, clinical pregnancy rates and implantation rates following fertility treatment, particularly IVF, are significantly lower in ethnic women when compared to white Europeans.

"The reason for the reduced implantation rates and subsequent reduced outcomes in the ethnic minority group is still unclear. Further research into genetic background as a potential determinant of IVF outcome, as well as the influencing effects of lifestyle and cultural factors on reproductive outcomes, is needed.

"Subsequently, these findings could be used to modify clinical strategies in fertility treatments to increase success rates among all [ethnic minority](#) groups."

John Thorp, *BJOG* deputy editor-in-chief, added:

"We know that the main aim of couples undergoing fertility treatment is to achieve a healthy baby and findings from this study are helpful in understanding that ethnicity may be a significant indicator for success following such treatment.

"It is important that women are fully aware of their realistic chances of success when undergoing any form of assisted reproductive therapy and this information could help clinicians better inform and counsel patients.

"Furthermore, evidence of more realistic success rates of women undergoing fertility treatment could be used to encourage women from ethnic backgrounds to seek treatment earlier and improve the likelihood of a positive pregnancy outcome."

More information: [dx.doi.org/10.1111/1471-0528.12503](https://doi.org/10.1111/1471-0528.12503)

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