Paediatric and Perinatal Epidemiology

WILEY

Paediatric and Perinatal Epidemiology

CRITICAL COMMENTARY

Assisted Reproduction Technology and Men's Mental Health: An Overlooked Association

Alice Goisis[1] | Marco Tosi[2]

[1]Centre for Longitudinal Studies, Social Research Institute, University College London, London, UK | [2]Department of Statistical Sciences, University of Padua, Padua, Italy

Correspondence: Alice Goisis (a.goisis@ucl.ac.uk)

Received: 10 February 2026 | **Revised:** 10 February 2026 | **Accepted:** 19 February 2026

Worldwide, the number of births conceived via assisted reproduction technology (ART) is increasing rapidly. This rise is attributed to increasing availability of infertility treatments, technological advances in success rates, and the rising demand for ART as a consequence of delayed childbearing. Recent estimates suggest that more than 10 million children worldwide have been conceived through ART [1], with Denmark having one of the highest proportions of children born following ART, exceeding 10% [2]. As ART utilisation expands and plays an increasingly important role in the realisation of fertility intentions, understanding its implications for parental mental health is a public health and epidemiological priority.

So far, work investigating the association between conception via ART and mental health has primarily focused on women. Previous studies have suggested that women who undergo ART treatments might be at risk of psychological distress, anxiety, and depression. However, the empirical evidence for women who successfully conceive via ART remains mixed, with some studies showing adverse mental-health implications [3], while others indicate no evidence of an association [4] or even report lower levels of postpartum depression [5]. Differences across studies are likely to be at least in part explained by methodological variation, particularly in how baseline mental health is measured before treatment and in how accurately pre-existing confounders are captured. When socioeconomic resources are accounted for and baseline mental health is measured at least 2 years prior to starting fertility treatments, the evidence shows that women who have a live birth following ART are not found to be at increased risk of mental health problems compared to women who conceive naturally [6]. In contrast, the evidence on the mental health consequences of failing to conceive via ART is more conclusive and points to increased risk of depression for women [7].

The near absence of evidence on men is striking. There are likely to be different explanations behind the lack of evidence on men. First, this gap may reflect prevailing views that frame infertility and reproduction primarily as women's issues, alongside men's more peripheral clinical involvement in the ART process [8]. Second, it might be harder to access data on men and their mental health during and after the ART process, which might reflect not only men's more limited clinical involvement but also the way ART systems, data infrastructures, and research priorities have historically been organised around women. Small-scale evidence shows that men who father a child following ART report higher positive well-being [9], but we showed, based on a survey of self-reported measures of mental health, that men's mental health tends to decline during and after ART conception, despite some fluctuations over time, underscoring potential vulnerabilities for men, too [10].

In this context, the study by Bliddal and colleagues [11] in this issue of *Paediatric and Perinatal Epidemiology* represents a timely and important contribution. Using nationwide Danish register data, the authors examine whether conception through ART is associated with paternal postpartum depression, defined on the basis of new clinically diagnosed or pharmacologically treated depression in the first year after childbirth. To our knowledge, this is the first large-scale population-based study to investigate paternal postpartum depression following medically assisted reproduction using objective clinical indicators rather than self-reported symptoms, which parallels Egsgaard et al.'s (2025) study on Danish women [5]. By shifting the analytical focus from mothers to fathers and from subjective distress to clinically recognised depression, the study addresses two major gaps in the existing literature. First, it broadens the understanding of how ART may shape parental postpartum depression

beyond successful conception and underscores the importance of considering men as active participants in the reproductive and perinatal process. The authors report a modest but consistent increase in the risk of postpartum depression among fathers of children conceived through ART compared with fathers of children conceived naturally. Importantly, this increased risk was observed across different types of fertility treatment and treatment indications, suggesting it is not confined to a specific subgroup. Second, the study indicates the strongest association among fathers whose partners underwent fertility treatment for longer than 12 months prior to conception, pointing to the potential cumulative psychological burden of extended periods of infertility and treatment. Taken together, these findings suggest that having a child following ART might signal some mental health vulnerability during the transition to fatherhood. Moreover, the findings highlight that men's experience does not necessarily mirror the experience of women who appear to be more affected during the years preceding conception—when ART treatment can be physically and psychologically stressful—and who may subsequently recover after childbirth [3].

The major strength of the study is its reliance on population register data. First, population register data provide a large sample size and statistical power, which are key when analysing ART. Because of the large cohort size, the authors can produce patterns stratified by ART type and duration, which is important for capturing the varied experiences of fathers undergoing ART. The study suggests that prolonged ART treatment may be associated with cumulative psychological distress despite conception or emotional strain linked to higher expectations of parenthood. Second, population register data minimises recall/reporting bias and provides clinically relevant measures of diagnosed/treated depression.

The study also presents some limitations. First, it relies on a measure of depression, which is quite severe; milder and untreated depression are not captured. Second, the administrative nature of the data does not provide information on potential unobserved confounders and other moderators, such as feelings of failure due to repeated unsuccessful attempts to conceive and strained relationship quality between partners, which might be strained during the ART process. The study is not definitive, but its limitations do not undermine its core contribution.

Yet, several aspects remain to be investigated and better understood. First, we need a longer follow-up period, starting well before men are exposed to the ART process and continuing beyond the first 12 months of the child's life. This would enable us to assess *changes* in men's mental health with respect to their baseline level of mental health and to assess whether the increased risk of depression is temporary or lasts in the longer term. Second, prior research on women shows that the largest effects of undergoing ART on mental health are on women whose ART treatments are unsuccessful—we currently lack evidence on men, which is an important gap in knowledge. The Danish population register data provide the opportunity to investigate these questions. Third, we need to compare men who undergo ART not only to those who conceive naturally with their partner but also to men who suffer from subfertility but do not undergo ART. This would enable us to isolate the effect of undergoing ART from the effect of suffering from subfertility. Population register data does not include information on infertility; whilst survey data might provide this information, the sample sizes tend to be too small for meaningful analyses. Fourth, we need to understand the mechanisms behind the associations documented in the study. It is worth considering several hypotheses. The small increased risk in depression observed in the 12 months following the birth of the child could be related to cumulative stress of infertility and treatment, masculinity and identity challenges, or the emotional aftermath of prolonged uncertainty. Yet, there is also the possibility that the patterns are at least partially explained by increased medicalisation and contact with healthcare settings following months of ART treatments. Combining survey data with qualitative evidence will contribute to elucidating the psychosocial pathways that might explain how ART shapes men's mental health.

As ART becomes an increasingly common pathway to parenthood, understanding its implications for the mental health of both parents is essential. The study by Bliddal and colleagues demonstrates the value of population-based register data for illuminating aspects of paternal mental health that have remained largely invisible in prior research relying on self-reported measures or small clinical samples. Such data make it possible to study men at scale, to capture clinically recognised depression, and to situate mental health risks within the broader life-course context of fertility treatment and parenthood. While the absolute risk of postpartum depression among fathers remains low, the observed elevation following ART highlights the need to move beyond a maternal-centric perspective in both research and clinical care. Future work that integrates high-quality administrative data with psychosocial measures will be crucial for identifying vulnerable groups, clarifying mechanisms, and informing more inclusive approaches to mental health support around fertility treatment and the transition to parenthood.

Author Contributions

A.G. drafted the commentary and M.T. reviewed and revised it. Both authors contributed and fully approved the final version of the manuscript.

Funding

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

References

1. A. Pinborg, U.-B. Wennerholm, and C. Bergh, "Long Term Outcomes for Children Conceived by ART," *Fertility and Sterility* 120, no.1 (2023): 449–456.

2. "DHD A. Assisteret Reproduktion 2019 IVF-Registeret—Tal og Analyse: Danish Health Data Authorities," (2021).

3. F. Monti, F. Agostini, P. Fagandini, G. B. La Sala, and I. Blickstein, "Depressive Symptoms During Late Pregnancy and Early Parenthood Following Assisted Reproductive Technology," *Fertility and Sterility* 91 (2009): 851–857.

4. M. K. Simoni, K. Gilstad-Hayden, S. H. Naqvi, L. Pal, and K. A. Yonkers, "Progression of Depression and Anxiety Symptoms in Pregnancies Conceived by Assisted Reproductive Technology in the United States," *Journal of Psychosomatic Obstetrics & Gynecology* 43 (2022): 214–223.

5. S. Egsgaard, M. Bliddal, L. R. Jølving, X. Liu, H. Sonne, and T. Munk-Olsen, "The Association Between Medically Assisted Reproduction and Postpartum Depression: A Register-Based Cohort Study," *BJOG: An International Journal of Obstetrics & Gynaecology* 132 (2025): 991–999.

6. F. Gressier, A. Letranchant, O. Cazas, A. Sutter-Dallay, B. Falissard, and P. Hardy, "Post-Partum Depressive Symptoms and Medically Assisted Conception: A Systematic Review and Meta-Analysis," *Human Reproduction* 30 (2015): 2575–2586.

7. A. Goisis, M. Palma, N. Metsä-Simola, et al., "Medically Assisted Reproduction and Mental Health: A 24-Year Longitudinal Analysis Using Finnish Register Data," *American Journal of Obstetrics and Gynecology* 228 (2023): 311–324.

8. A. L. Greil, "Infertility and Psychological Distress: A Critical Review of the Literature," *Social Science & Medicine* 45 (1997): 1679–1704.

9. M. Johansson, A. Adolfsson, M. Berg, et al., "Gender Perspective on Quality of Life, Comparisons Between Groups 4–5.5 Years After Unsuccessful or Successful IVF Treatment," *Acta Obstetricia et Gynecologica Scandinavica* 89 (2010): 683–691.

10. M. Tosi and A. Goisis, "Mental Health Around the Transition to First Birth: Does Medically Assisted Reproduction Matter?," *Demography* 58 (2021): 1347–1371.

11. M. Bliddal, T. Munk-Olsen, X. Liu, and S. Egsgaard, "Postpartum Depression in Fathers Following Medically Assisted Reproduction: A Register-Based Cohort Study," *Paediatric and Perinatal Epidemiology* (2025).