Does ART treatment increase the risk for divorce? A registered-based study 1994-2010

M. Martins¹, D. Vassard², C. Ørsted Hougaard², L. Schmidt²

¹University of Porto, Faculty of Psychology, Porto, Portugal

²University of Copenhagen, Social Medicine, Copenhagen, Denmark

Study question:

Are couples who initiate ART treatment at higher risk for marital dissolution compared to other couples?

Summary answer:

There is no effect of ART treatments on risk of future marital dissolution over a period of 16 years when adjusting for all confounders.

What is known already:

Findings regarding marital stability and fertility treatments have been sparse and controversial. While there is data showing higher divorce rates among women who go through fertility treatments, there is also some evidence of this experience bringing couples closer by forcing them to communicate more and to deal with the surrounding stigma. Using a population-based study and couple-level data, we investigated the extent to which ART treatment increases the risk for divorce/ partnership dissolution during up to 16 years of follow-up.

Study design, size, duration:

Register-based national cohort study including all women registered with ART between January 1^{st} 1994 and September 30^{th} 2009 (n = 42845). Marital/cohabiting status was confirmed by matching these women to partners with whom they were married or shared an address. To account for having a significant relationship at baseline (two years), marital/cohabiting status was confirmed by accessing this variable before the establishment of the cohort back to January 1^{st} 1992.

Participants/materials, setting, methods:

A comparison group from the background population including five controls per ART-treated woman and matched to female age at baseline was prospectively sampled, and participants could change status during follow-up if they entered ART. Final sample had 148873 couples, followed until marital dissolution, death of women/spouse, migration, or December 31st 2010. We used Cox regression models adjusting for female and male age, education, marriage, common child at baseline and live-born child during follow-up.

Main results and the role of chance:

At baseline, the majority of couples were married (69%). More non-ART couples opted for marriage (70% vs. 64%; P<.0001) and already had common children at study entry (43% vs. 9%; P<.0001). During the 16 years of follow-up the majority of couples had children with their baseline partners (56% non-ART vs 65% ART), and 22% ended up separated or divorced (20% ART vs 22% non-ART). Findings revealed a lower risk of break-up among ART couples (crude HR 0.84, 95% CI 0.82-0.86), even after adjusting for both partners' age, education and partnership status (adj HR 0.83, 95% CI 0.80-0.86). However, when subsequent common children (time-dependent) was added to the model, no difference in the risk of dissolution was found (adj HR 1.00, 95% CI 0.99-1.01). A significant interaction between ART status and common children showed that the risk of break-up is mainly influenced by the childlessness regardless of having gone through ART treatment. While no difference in the risk of break-up was found among childless couples, there was a slightly higher risk of break-up among ART couples compared to non-ART couples with common children (HR 1.02, 95% CI 1.00-1.04).

Limitations, reasons for caution:

There are important predictors of divorce that were not considered. We were unable to adjust for religion, existence of previous marital relationships, income, employment, health status of parents and child(ren), and quality of relationship.

Wider implications of the findings:

While the finding that going through ART does not increase the risk of break up per se is reassuring for couples who underwent ART and have children or are contemplating to start ART, findings on the protective nature of parenthood can be particularly helpful for increasing patient adherence to treatments.

Trial registration number:

N/A

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