

# The linked lives of separated parents. Ex-partner's life events and mental health of single mothers and fathers

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## Extended abstract

### Introduction and background

During the Second Demographic Transition (Lesthaeghe 2010, 2014), divorce rates, including the dissolution of parental unions, began to rise in the Nordic countries in the 1960s, followed by increases in the United States and other Western European countries (Kalmijn and Leopold 2021; Sobotka and Toulemon 2008). In Europe and North America, the percentage of children who experience the dissolution of their parents' union before the age of 15 ranges from 10 percent in Southern Europe to 25-30 percent in Western and Northern Europe and nearly 50 percent in the United States (Andersson et al. 2017). These dissolutions have consequences for parents' mental health, as documented in previous research (Kravdal and Wörn 2023; Kühn et al. 2022; Leopold and Kalmijn 2016). In contrast to the dissolution of childless couples, separated parents of minor children must remain in contact thereafter (Kreyenfeld and Trappe 2020). There is scholarly interest in such post-separation relationships, but studies tend to focus on the organization of care arrangements for the child (Augustijn 2023; Beckmeyer et al. 2019; Eriksson and Kolk 2024). It is unclear whether parents' post-separation relationships are still strong enough for their well-being to be substantially affected by the ex-partner's life events.

Family demographers and life course sociologists often use the *linked lives* framework to conceptualize the interrelatedness of life courses and to examine the extent to which events in the lives of others influence one's life (Carr 2018; Elder et al. 2003). It has been repeatedly documented that the life events of close family members, such as one's own children or partner, can have an impact on an individual's mental health (Han et al. 2021; Uccheddu and Gaalen 2022). However, the relationship of separated parents has not been discussed under the concept of linked lives. In contrast, a recent paper by Settersten et al. (2024) argued for conceptualizing these relationships as "unlinked lives", even though the literature recognizes that "parental ties are not broken by separation" (Moles-Kalt et al. 2024, p. 816).

In addition, apart from theoretical debates about the framing of these relationships, research on how ex-partners life transitions affect the well-being of ex-partners is nearly absent. This is surprising, given the increasing prevalence of this relationship and the claims in family demography to examine family relationships "beyond the dyad" (Carr 2018, p. 54) and the range of social ties beyond the immediate family environment of current spouses and children (Umberson and Montez 2010). Thus, there is an awareness in the literature that new data sources allow for the study of more complex social ties in terms of linked lives. However, despite increasingly detailed survey data, data limitations may be the reason why the influence of the ex-partner's life events on the mental health of separated parents has not yet been investigated, as this requires that both parents be followed through the childhood of their child after separation and that regular information on their life events and mental health be available.

The objective of this study is to test, for the first time, whether the ties between separated parents are strong enough for one partner's life events to affect the ex-partner's mental health. By testing this for multiple life events (ex-partner's re-partnering, ex-partner's childbirth, ex-partner's separation, death of ex-partner, ex-partner's cancer diagnosis, ex-partner's parent's death) and for both mothers and fathers, we aim to provide initial insights into whether the concept of linked lives can be extended to separated parents, arguing that their lives are still connected due to the shared child. To do so, we use Finnish total population register data, which allows us to follow 675,247 families in which the parents separated during the childhood of their firstborn child throughout the period when the child was still a minor. Following both parents after separation allows us to examine a variety of life events and whether they affect the mental health of the ex-partner, measured by the purchase of antidepressant medication. We use two different forms of fixed effects models and a novel difference-in-difference approach to strengthen the robustness of our results.

## **Analytic approach**

### *Data*

In our study, we use Finnish total population register data on married and cohabiting couples who had their first common biological child in 1987-2001 and follow them until the child's 18<sup>th</sup> birthday. We chose to focus on the first child of both parents to allow for comparability across families. Given the increasing prevalence of cohabitation (Hiekel et al. 2014) and the fact that between 40% and over 50% of firstborn children in our study cohorts were born outside of marriage (Official Statistics of Finland 2021), we include both married and cohabiting couples. In the data, only couples who lived together for at least 90 days are defined as cohabiting.

We then restricted our sample to those couples who lived together at the time of the child's birth but separated during the first 18 years of the child's life. This reduces the sample to 675,247 couples. Because we are interested in mental health as an outcome, but know that patterns of mental health trajectories are very similar in the years surrounding a separation, we further restrict the sample period: Since the majority of studies examining mental health trajectories around union dissolution show that mental health significantly increases again after a decline in the two years following separation (Kalmijn 2017; Kravdal and Wörn 2023; Kühn et al. 2022; Leopold 2018; Metsä-Simola and Martikainen 2013), we focus only on life events of the separated parents that occur at least two years after separation.

### *Variables*

The mental health of the parents in our sample was assessed through their purchases of antidepressant (AD) medication. In Finland, AD medication can only be obtained with a medical doctor's prescription. As AD medication is always prescribed by medical professionals, its use is based on an objective clinical assessment. Therefore, changes in the use of such medication indicate changes in mental health that are not only perceived by the individuals themselves but also have direct implications for the provision of medical care (see Metsä-Simola and Martikainen 2014).

The transitions of the ex-partner we focus on as exposure variables include partnership transitions (union formation and union dissolution), childbirth, and health- and mortality-related transitions (death, death of a parent, cancer diagnosis). The cancer diagnosis information is taken from data on visits to inpatient or specialized outpatient care, i.e., all hospital-level care in Finland.

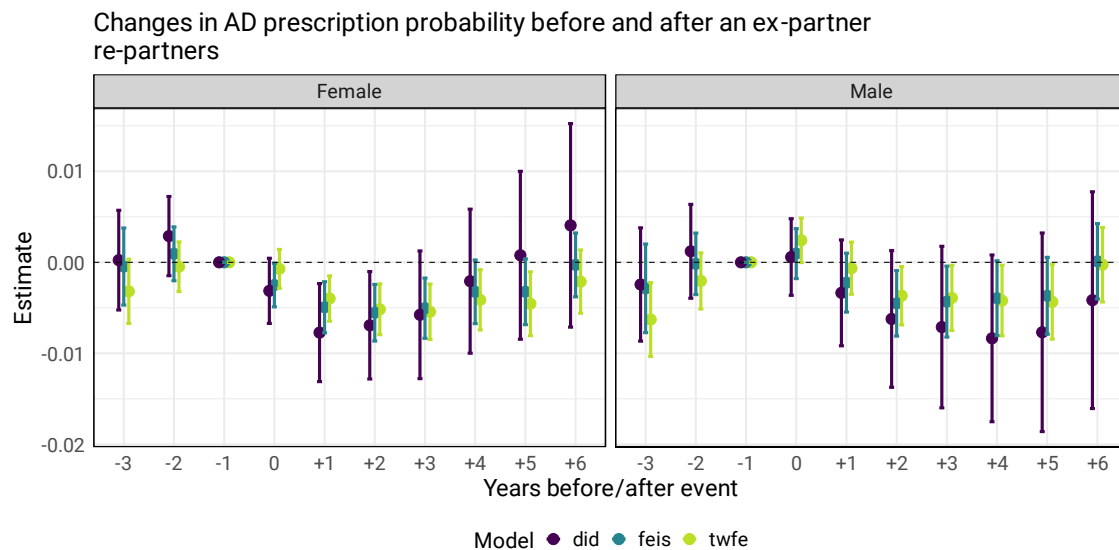
### *Method*

As we base our analyses on panel data and are interested in the trajectories of the probability of psychotropic medication around the life events of the ex-partner, we can use different methods to control for unobserved heterogeneity. Due to the broad conceptual approach of this paper, in which we look at a wide range of life events to provide a first insight into the phenomenon of linked lives of separated parents, we decided to test

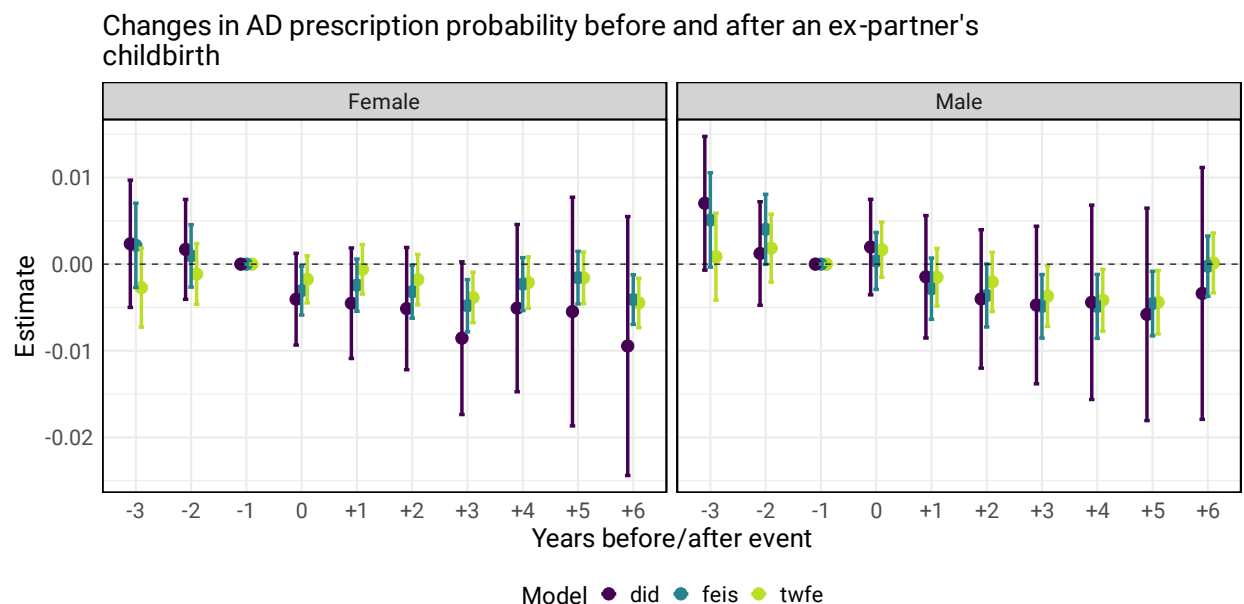
the phenomenon in all transitions using multiple panel data analyses methods to ensure that our results are robust and not artifacts of method selection. These are two-way fixed effects (TWFE), fixed effects with individual slopes (FEIS), and the difference-in-difference (DiD) approach by Callaway and Sant'Anna (2021).

### Preliminary results

In the following, we present preliminary results for four of the seven life events we aim to investigate in the paper: ex-partner's re-partnering, childbirth, death, and cancer diagnosis. For women, the probability of AD prescription probability decreases following the *re-partnering of the ex-partner*, indicating an improvement in mental health. This is significant in the two years following the event in all models. For men, the pattern is similar but not significant across all models.

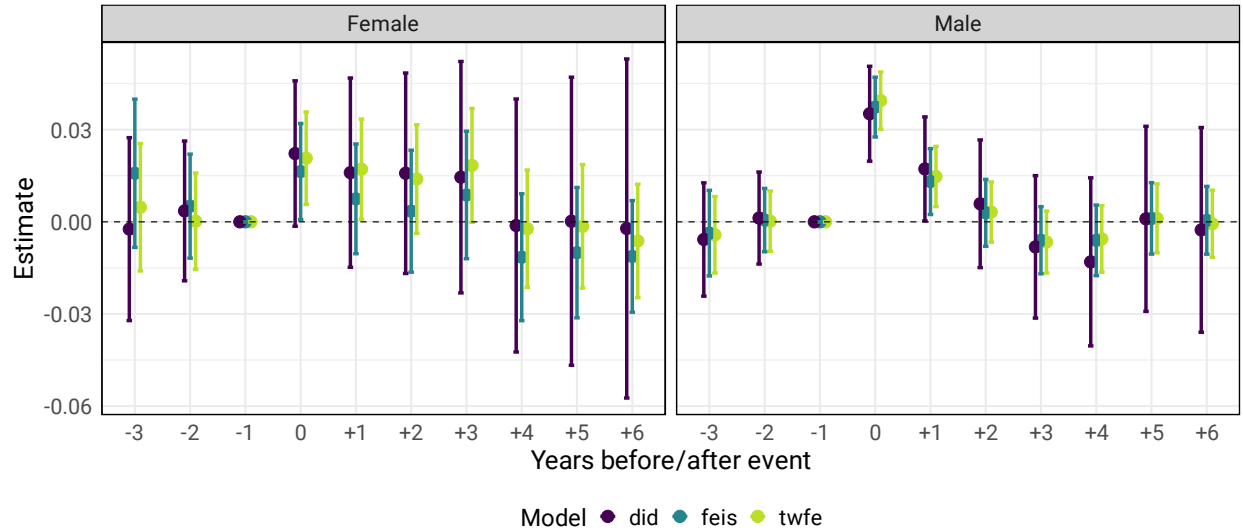


Patterns following the *ex-partner becoming parent of a new child with another partner* slightly indicate a decline in AD prescription probability. However, for both women and men, coefficients are not significant across all models.



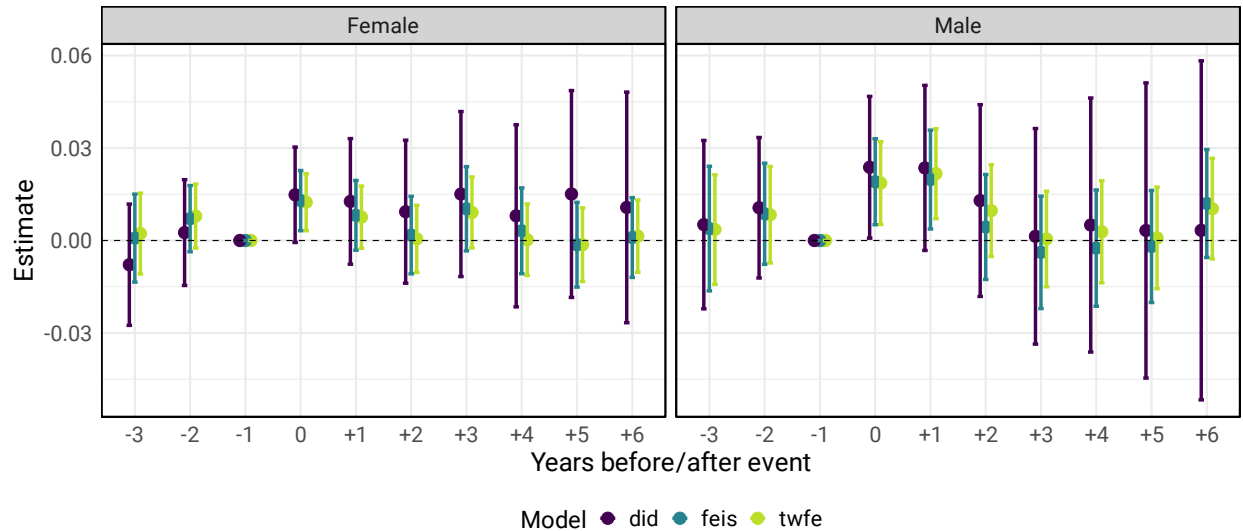
Following the death of an ex-partner, there is a strong increase in AD prescription probability among men, which is significant in all models. This indicates a decline in mental health. For women, there is also an increase in AD prescription probability, but this is weaker and not significant across all models.

Changes in AD prescription probability before and after an ex-partner dies



Following the cancer diagnosis of an ex-partner, there is a significant increase in AD prescription probability for both men and women in the year after the diagnosis. These are significant across all models for both men and women, but stronger for men.

Changes in AD prescription probability before and after an ex-partner's cancer diagnosis



These preliminary findings partly support our hypothesis of linked lives among separated parents in the sense that ex-partner's life events affect the mental health of mothers and fathers. This is shown for life events that improve mental health and for those that are detrimental. In consideration of these preliminary findings, we plan to conduct further analyses, in which we compare some of these transitions with families, where both parents stay together throughout their child's childhood and compare the results.

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