Early determinants of fertility

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Mental health as a marker of fertility behaviour: examining emotional and conduct problems as a predictor, outcome, and moderator of entry into early parenthood
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Background:

Early parenthood is associated with adverse economic, physical, and mental health outcomes in parents and offspring. In this study we investigated i) the influence of mental health on the likelihood of becoming a parent in before 30 years and ii) the effect of parenthood on postnatal parental mental health.

Methods: Our pre-registered analyses included 8,746 participants from the Twins Early Development Study (TEDS). Emotional and conduct problems were assessed with the Strengths and Difficulties Questionnaire from ages 4 to 26. Latent growth curve models estimated the initial (intercept) and the change in mental health (slope). Cox regressions were used to estimate the hazard of entering parenthood <30 years. Twin models examined whether the association between prior mental health and entry into parenthood remained after controlling for shared genetics and environment. Linear regressions explored whether entry into parenthood was associated with post-child emotional and conduct problems.

Results: Intercepts of conduct (HR: 1.51 to 1.56) and emotional problems (1.11 to 1.82) were associated with parenthood by age 30. Increasing conduct problems (HR= 1.07 to 1.10) and reducing emotional symptoms (HR= 0.94 to 0.96) were associated with entry into parenthood. After controlling for shared genetics and environment, only the association between conduct problems and entry into parenthood remained. After having children, conduct (β = -0.09) and emotional problems (β = -0.35) were reduced in parents compared to non-parents.

Conclusions: Conduct problems are associated with early parenthood. These findings highlight the need to consider behavioural patterns in understanding pathways to parenthood.

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Socially patterned associations of externalizing and internalizing symptoms with lifetime fertility in the UK cohorts of 1958 and 1970
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With the increase in the mental health issues among young adults and continued changes in fertility it is important to understand them better separately but also their potential interconnectedness. In this study we look at potential impact of the mental health issues of children on their later life fertility. The understanding of the association between childhood behavioral symptoms with lifetime fertility remains incomplete because studies have looked at average associations. We investigate how the association of childhood externalizing and internalizing behavioral symptoms with lifetime fertility varies across birth cohorts, sexes, and social class in 1958 National Child Development Study and 1970 British Cohort Study data. A series of linear regression models show that, net of childhood health and test scores, externalizing symptoms are associated with a higher achieved fertility after the first child but this association does not appear among people in high social class. Internalizing symptoms in turn link to lower fertility due to substantially lower likelihood of having any children but this association is driven only by men and people in higher social classes. These associations are similar for both cohorts, which conflicts earlier claims of the increasing importance of personal characteristics for fertility behavior. These findings illustrate complex ways in which individual-level life course predictors of fertility are embedded in class structures and allow us to better understand fertility trends. Moreover, our results highlighting the need for targeted mental health care and show that the mental health might not only influence an individuals but have society-level impact.

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Economic cycles and migrant fertility: how do economic cycles affect entry into parenthood and parity progression among 1.5 and second generation migrants in Belgium?
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European populations are becoming increasingly diverse in terms of migration background, yet little is known about whether fertility patterns of 1.5 and second generation migrants are sensitive to economic cycles and how growing shares of these groups shape fertility trends. Although research on majority populations has repeatedly shown procyclical effects on entry into parenthood, literature on economic cycles and first births among 1.5 and second generation migrants is limited and the association with parity progression across origin groups and generations remains unexplored. This study aims to (i) examine whether and to what extent timing of first births varies with economic cycles among women of the 1.5 (migrated before the age of 18) and second generation of different origin groups in Belgium, (ii) identify which profiles transition into parenthood during adverse versus prosperous economic conditions, and (iii) understand how this differential selection further influences the relationship between economic cycles and parity progression across origin groups and generations. Using Belgian census and register data from 1990 to 2023, we estimate joint discrete-time hazard models of entry into parenthood and parity progression for Belgian women and the 1.5 and second generation of Northern & Western European, Southern European, Eastern European, Turkish, Maghrebi, and other non-European origin groups. Examining the extent to which fertility of 1.5 and second generation migrants is (not) equally responsive to economic cycles compared to majority populations, can contribute to a better understanding of both migrant fertility and the relationship between economic cycles and fertility as a whole.

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Job stressors, chronic stress, and their impact on fertility
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This study investigates how occupational stressors influence fertility, with a particular focus on chronic stress as a potential mediating mechanism. Job-related stress has increased across occupations in recent decades, raising concerns about its long-term impact on health and well-being. Previous research has provided important insights into how stress affects fertility, particularly through studies on infertility, fertility treatment outcomes, fertility intentions, and miscarriage. While these studies highlight key biological and behavioural mechanisms, they often focus on short-run effects in clinical or select populations. This study builds on that work by focusing on realised fertility—whether and when individuals have children—using a large, general population sample.

To address this, we combine detailed occupation-level data from the Occupational Information Network (O*NET) with longitudinal survey data from the German National Educational Panel Study (NEPS). We examine how stress-related job characteristics—such as stress tolerance, time pressure, and competitive pressure—are associated with the timing and likelihood of childbirth using discrete-time complementary log-log (cloglog) models. A key advantage of our design is the ability to follow individuals over an extended period, capturing both longer-term fertility outcomes and the lasting nature of occupational exposures, as individuals often remain in the same or similar types of work. We account for other job-related confounders such as income level, working hours, and employment stability. We then explore whether chronic stress—measured through perceptions of current and future life circumstances—acts as a psychological pathway linking job stressors to reduced fertility, and examine variation by gender and education.

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