

Socio-Economic Inequality in the Consequences of Unintended Pregnancy Status for Child Development in Ireland

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Background

Although a large literature has documented the link between unintended pregnancy status (UPS) and adverse neonatal outcomes, such as preterm birth and low birth weight, there is relatively little research on the longer-term consequences of pregnancy intention for child development. The existing literature highlights poorer cognitive and social outcomes in children whose births were unplanned or unintended, but this association tends to disappear when maternal or family background is accounted for. Yet it is not clear if the association between pregnancy intention and child outcomes is confounded by socio-economic status (SES) because lower SES families are less likely to plan their pregnancies in the first place or because they are less able to deal with the financial or psychological effects of an unintended one.

This paper investigates the consequences of UPS for Irish children's cognitive development and behavioral adjustment between the ages of 9 months and 13 years. To disentangle the relationship between family socio-economic status, UPS and children's development outcomes, we use nationally representative longitudinal data from the Growing Up in Ireland (GUI) study for 11,000 children born in 2008. Ireland had the highest total fertility rate and crude birth rate in the European Union at the time. Abortion was illegal and, therefore, unintended pregnancies typically resulted in births. There is one published study (McCrary & McNally, 2013) that used GUI data to investigate the consequences of unintended pregnancy, but it analysed the initial wave of the survey only. The study found that, after controlling for sociodemographic factors, unintended pregnancy was linked with increased maternal depression and parenting stress but not with neonatal outcomes or developmental delays at 9 months.

The present study addresses the following research questions:

RQ1: What is the nature of association between pregnancy intention status and maternal/family characteristics?

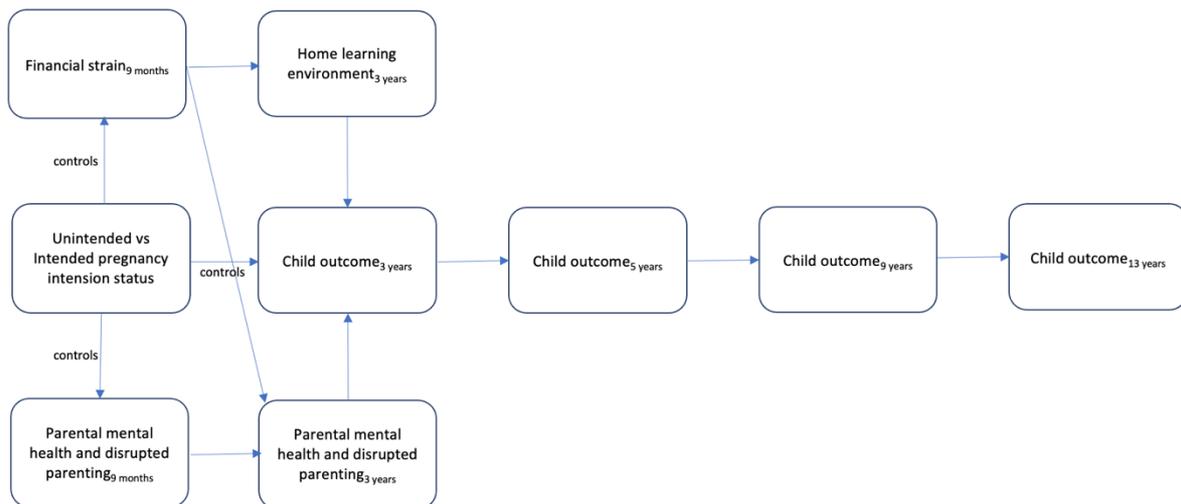
RQ2: How do children's cognitive and behavioural outcomes at ages 3, 5, 9 and 13 vary by pregnancy intention status?

RQ3: What are the main channels through which pregnancy intention status is related to children’s outcomes between the ages of 3 and 13 years?

RQ4: Do these channels vary by family socio-economic status and, if so, how?

Conceptual framework

To investigate the relationship between socio-economic status, UPS and child outcomes, the present study draws on the family investment model (FIM) and the family stress model (FSM). The FIM literature posits that parents use their economic, social, and cultural capital to foster children’s skills and well-being. Meanwhile, FSM postulates the links between economic hardship, economic pressure, parental psychological distress, intra-parental and parent-child relationships, and, finally, child outcomes. Thus, if unintended pregnancies are a financial shock resulting in greater economic pressures, this may lead to lower parental investment in children and to parental psychological distress and compromised intra-family relationships, ultimately manifesting in poorer child outcomes. Figure 1 summarises these pathways.



Data and methods

We use data from five waves of the '08 Cohort of GUI: 9 months, age 3, age 5, age 9 and age 13. Of 11,000 families in the study, more than 6,000 were still present at the latest wave. We use longitudinal weights provided with the GUI dataset to account for non-random attrition between the waves.

Biological mothers were asked about their pregnancy intention with respect to the study child at the 9-month interview (“Did you intend to become pregnant before [Study Child] was conceived?”). Response options included: “Yes, at that time”, “Yes, but much later”, “Yes, but somewhat later”, “Yes, but earlier”, “No intention of ever becoming pregnant”, “Other” and “Unsure/Didn’t mind”. Following McCrory and McNally (2013), we define only those pregnancies

that were expected “at that time” as intended, while all other responses are included in the unintended category. We explored alternative definitions in a series of sensitivity checks.

We use age-appropriate standardized tests of cognitive ability to measure cognitive outcomes and the Strengths and Difficulties Questionnaire (SDQ) scales to measure emotional and behavioural outcomes at age 3, 5, 9 and 13.

We use maternal reports of the household’s ability to make ends meet as a measure of financial strain.

The home learning environment (HLE) is measured using questions about the frequency of age-appropriate cognitively stimulating activities in the home.

Parental mental health and disrupted parenting are measured using maternal self-reports of parenting stress (i.e. parental stressors sub-scale of the Parental Stress Scale).

Preliminary findings

More than two-fifths (43%) of the children in the sample were unintended pregnancies. UPS was associated with statistically significantly lower cognitive ability scores and greater behavioural difficulties at ages 3, 5, 9 and 13. However, UPS was patterned by household income, maternal education, and parental occupational class.

Dynamic structural equation model (SEM) estimates suggest that UPS was associated with higher financial strain and greater parenting stress when the child was 9 months old, even after controlling for maternal age, education and migration background, and household occupational class. Financial strain at 9 month was associated with greater parenting stress and poorer HLE at age 3. In turn, HLE (but not parenting stress) was associated with cognitive ability scores at that age, controlling for family socio-demographics.

Unwanted (but not mistimed) pregnancy status was associated with lower child cognitive test scores at age 13. This is primarily due to the lingering effects of financial stress when the child was 9 months old. Mistimed or unwanted pregnancy status is associated with worse mental health at age 13, due to both financial stress and maternal stress when the child was 9 months old. These findings suggest that family SES confounds the association between pregnancy intention and child outcomes not so much because lower SES families are less likely to plan their pregnancies but because they are less able to deal with the financial and psychological consequences of an unintended one.

The next steps in the analysis are as follows: 1) to re-estimate all models separately by maternal education at the time the child was born in order to directly investigate whether family SES moderated the association between UPS and child outcomes; 2) to examine UPS-related differences

in family dissolution as another potential channel of influence. In addition, I will check for non-random attrition of families with where the study child was an unwanted pregnancy.

References

McCrory, C., & McNally, S. (2013). The effect of pregnancy intention on maternal prenatal behaviours and parent and child health: Results of an irish cohort study. *Paediatric and Perinatal Epidemiology*, 27(2), 208–215.