# Life Course Determinants of Poor Psychosocial Health in Adulthood: Young Motherhood as a Mediating Pathway

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## Aim

To investigate whether young motherhood plays an independent role as a mediating pathway through which socio-economic disadvantage in childhood is associated with poor adult psychosocial health.

## Data

Prospective data from a national birth cohort study of women born in Britain in 1970 are used. Data from the birth survey identify parental characteristics (Block 1 in figures). Data collected at age 10 identify childhood circumstances and individual attributes (Block 2). Data collected at age 30 provide age at motherhood, and the adult circumstances of cohort members (Blocks 3,4,5). Poor psychosocial health is measured using the Malaise Index (Block 6).

## Method

The graphical model is a stochastic model specified via a mathematical graph. Nodes represent variables and edges (lines) represent significant associations between pairs of variables. Asymmetric relationships between variables, i.e. one anticipates the other, are represented through directed edges (arrows). Directed edges allow us to specify directions of potential causality. The graphical model is built up in a series of blocks. Log linear and logistic models identify significant associations between variables within a block and between variables in preceding and subsequent blocks. The lack of an edge tells us that two variables are conditionally independent given the other variables in the same and preceding blocks.

In order to make the chain graph easier to read some variables within a block have been rearranged into sub-blocks. Variables in the same sub-block are dependent, although not all variables that are dependent are in the same sub-block. Arrows from a sub-block to another variable or sub-block denote that all of the variables within the sub-block are directly associated with this other variable or other sub-block.
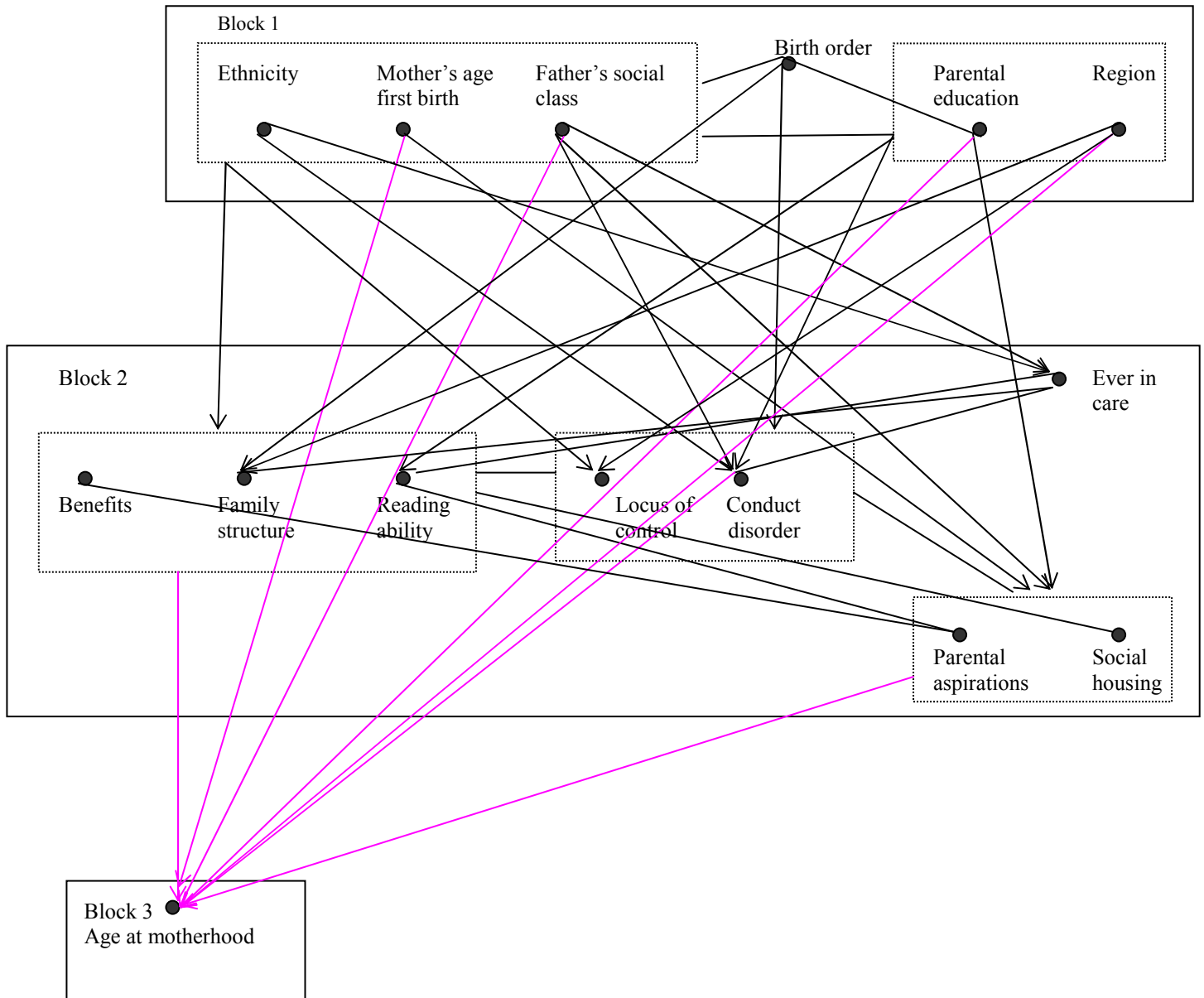
## Results

Young motherhood is associated with poor psychosocial health in adulthood due to common antecedent factors, for example, coming from a poor background, having low educational ability, a history of conduct disorder and an external locus of control. However, age at motherhood continues to be associated with malaise in adulthood even after controlling for these childhood antecedents. The graphical model tells us that in part this association is mediated through the relationship between age at motherhood and the risk of experiencing partnership dissolution. Teenage parents are twice as likely to have experienced partnership dissolution by age 30 and the odds of having a high malaise score at age 30 are found to be 1.31 times higher for such women (Table 1).

Young motherhood is also associated indirectly with malaise through its relationship with poorer living conditions in adulthood as indicated by being in a workless family (odds ratio for malaise 2.03), and through the poorer social support available to young mothers. Young mothers are less likely to be emotionally close to their own mother (odds ratio for malaise 1.74) and to have a friend in whom they can fully confide (odds ratio for malaise 1.76).
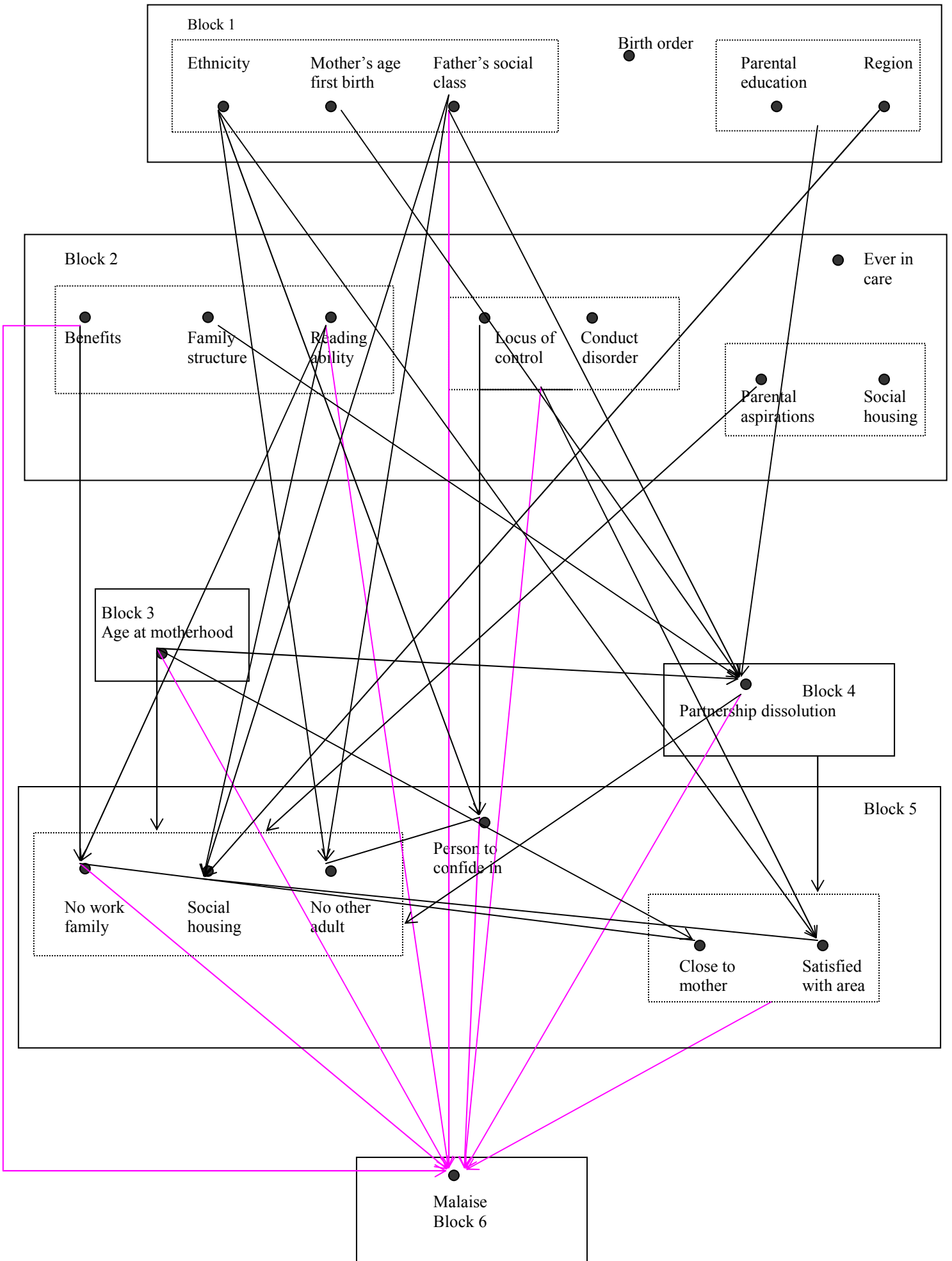
## Conclusion

The graphical chain model visually demonstrates how differentials in adult psychosocial health reflect the cumulative impact of social disadvantage experienced throughout the life course. Young motherhood plays an independent role as a mediating pathway through which socio-economic disadvantage in childhood is associated with malaise in adulthood.

# Figure 1: Antecedents of age at motherhood



Block 1

Ethnicity  Mother's age first birth  Father's social class  Birth order  Parental education  Region

Block 2

Benefits  Family structure  Reading ability  Locus of control  Conduct disorder  Ever in care  Parental aspirations  Social housing

Block 3
Age at motherhood

**Figure 2: Antecedents of high malaise score**



Block 1
Ethnicity
Mother's age first birth
Father's social class
Birth order
Parental education
Region

Block 2
Ever in care
Benefits
Family structure
Reading ability
Locus of control
Conduct disorder
Parental aspirations
Social housing

Block 3
Age at motherhood

Block 4
Partnership dissolution

Block 5
No work family
Social housing
No other adult
Person to confide in
Close to mother
Satisfied with area

Malaise
Block 6

# Table 1: Odds Ratios from Logistic Regression of Malaise Score >6 at Age 30

| Variable | Odds ratio | 95% Conf. Interval | | Variable | Odds ratio | 95% Conf. Interval | |
|---|---|---|---|---|---|---|---|
| **Birth order** | | | | **Parental aspirations** | | | |
| First birth | 1 | | | Leave after 16 | 1 | | |
| Higher order | 1.05 | 0.89 | 1.24 | Leave at 16 | 1.16 | 0.97 | 1.38 |
| **Mother's age first birth** | | | | **Locus of control** | | | |
| 15-19 | 1.12 | 0.88 | 1.43 | Internal | 1 | | |
| 20-24 | 1.05 | 0.86 | 1.28 | External | 1.39 | 1.04 | 1.88 |
| 25+ | 1 | | | **Conduct disorder** | | | |
| **Father's social class** | | | | No | 1 | | |
| I&II | 1 | | | Yes | 1.40 | 1.09 | 1.79 |
| IIInm | 1.17 | 0.87 | 1.59 | **Age at motherhood** | | | |
| IIIm | 1.26 | 0.98 | 1.62 | <20 | 1.49 | 1.11 | 2.00 |
| IV-V | 1.42 | 1.06 | 1.91 | 20-23 | 1.57 | 1.22 | 2.03 |
| No father figure | 0.95 | 0.59 | 1.53 | 24+ | 1 | | |
| **Age parents left educ.** | | | | Non-mother | 1.53 | 1.25 | 1.87 |
| One or both>16 yrs | 1 | | | **Partnership diss.** | | | |
| Both <=16 yrs | 0.97 | 0.81 | 1.16 | No | 1 | | |
| **Ethnicity** | | | | Yes | 1.31 | 1.10 | 1.55 |
| White | 1 | | | **Non-working family** | | | |
| Non white | 1.35 | 0.91 | 2.00 | No | 1 | | |
| **Region** | | | | Yes | 2.03 | 1.58 | 2.61 |
| London and SE | 1 | | | **Social housing** | | | |
| Rest | 1.04 | 0.88 | 1.23 | No | 1 | | |
| **Social housing** | | | | Yes | 0.97 | 0.76 | 1.24 |
| No | 1 | | | **Living arrangement** | | | |
| Yes | 1.14 | 0.95 | 1.38 | Other adult | 1 | | |
| **Receipt benefits** | | | | Lone parent, alone | 0.88 | 0.71 | 1.10 |
| No | 1 | | | **Satisfied with area** | | | |
| Yes | 1.26 | 1.00 | 1.59 | Yes | 1 | | |
| **Ever in care** | | | | No | 1.68 | 1.37 | 2.06 |
| No | 1 | | | **Someone to confide in** | | | |
| Yes | 1.34 | 0.83 | 2.15 | Yes | 1 | | |
| **Family Structure** | | | | No | 1.76 | 1.48 | 2.08 |
| 2 biological parents | 1 | | | **Cose to mother** | | | |
| 2 parents, other | 1.13 | 0.85 | 1.51 | Yes | 1 | | |
| Single parent | 0.77 | 0.56 | 1.05 | Not close/dead | 1.74 | 1.40 | 2.16 |
| **Reading score** | | | | | | | |
| > 25% | 1 | | | | | | |
| <= 25% | 1.26 | 1.05 | 1.51 | | | | |